June 27, 2016

Mr. James Fish
Alaska Department of Environmental Conservation
Division of Spill Prevention and Response
Contaminated Sites Program
610 University Avenue
Fairbanks, Alaska 99709

RE: Soil Vapor Investigation Report, Charles Slater Subdivision
Bentley Mall, Fairbanks, Alaska

Dear Mr. Fish,

KE Bentley One, LLC and KGE Bentley Two, LLC (Client) submit this report pursuant to the November 13, 2015 letter issued by Alaska Department of Environmental Conservation (ADEC) in response to the September 2015 soil vapor investigation. In September 2015, an investigation was completed that consisted of collecting 11 soil vapor samples to assess whether there is a potentially significant risk to human health and analytical results revealed that further investigation was warranted. A Soil Vapor Investigation Work Plan was then subsequently prepared and submitted to ADEC who approved the Work Plan on March 21, 2016.

In March 2016, as described below, Environmental Resource Group (ERG) implemented the Work Plan and conducted investigation activities including drilling and collecting soil vapor samples at residences and near the Monroe Catholic School in the Charles Slater Subdivision.

ERG has prepared this Soil Vapor Investigation Report (Report) for Bentley Mall East Satellite, ADEC File #102.38.122 (Site) (Figure 1). This Report discusses the soil vapor investigation performed to assess the potential risks of vapor intrusion to residences with basements in the Charles Slater subdivision.

FIELD INVESTIGATION OF SOIL VAPOR QUALITY

Selection of Soil Vapor Point Locations

Risks, if any, to indoor air posed by chemicals in soil vapor are based, in part, on the chemical concentration, proximity of the living space to the soil vapor, and migration pathways to the living space. Therefore, buildings with basements are assumed to be the most vulnerable to these potential risks because the basement is likely closer to higher concentrations within soil vapor. Soil vapor samples were collected from the following residences based on their proximity to locations that had elevated concentrations of CVOCs in previously collected samples of soil vapor and ground water (Figure 2), permission to access, and distribution throughout the Charles Slater subdivision. While other residences also meet the criteria, it was assumed that these seven reasonably represent the various conditions in the area. Table 1 describes the construction of each residence as well as the school. Questionnaires for each residence are provided in Appendix A and a further description of each home is provided below.

311 Noyes Street (SVR-1)

This single-story residence is a wood-frame building with three occupied units. Two rental units are located in the finished full basement and the property owner lives on the ground level. A schematic of the

property is provided in Figure 3a. Water and sewer utility lines were located and marked, however due to safety and access issues only one sample could be collected within 10 feet of the water line. An additional sample was collected on the opposite side of the property, approximately 39 feet away from the sewer line. Both samples were collected approximately 10 feet from the foundation.

208 Charles Street (SVR-2)

This residence is a single story home with two residents. The full basement is finished and used for storage. A schematic of the property is provided in Figure 3a. A cold air intake was observed at the residence. The property owner did not allow access to the basement, but stated that the water and sewer lines enter in the front of the residence. Due to access limitations, the soil vapor samples were collected near the southeast corner of the residence. The approximate location of the water line was marked by Golden Heart Utilities (GHU) and the soil vapor samples were collected approximately 13 feet and 18 feet from this location and approximately 5 feet from the foundation.

625 Noyes Street (SVR-3)

This residence is a two-story home that is occupied by six residents, including four children. The full basement is partially finished and used for storage. A schematic of the property is provided in Figure 3a. The property owner marked the approximate location of the sewer line and the water line was marked by GHU. One soil vapor sample was collected on the western side of the property approximately 5.5 feet from the sewer line. Another soil vapor sample was collected on the eastern side of the property approximately 5 feet from the water line. Both samples were collected approximately 5 feet from the foundation.

120 Ina Street (SVR-4)

This is a two-story building that is occupied by a daycare on the first floor and a residence on the second floor occupied by four to five full-time residents. The full basement is partially finished and used for storage. A schematic of the property is provided in Figure 3a. A private locator marked the approximate locations of the water and sewer lines. The two soil vapor samples were collected no more than approximately 12 feet from these lines and the foundation of the residence.

201 Ellingson Street (SVR-5)

This single-story residence is a log home with two occupied residential units. A rental unit is located in the basement and the property owner lives on the ground floor. A schematic of the property is provided in Figure 3b. A private locator marked the approximate locations of the water and sewer lines. Due to access issues, only one soil vapor sample was collected at the property, approximately 25 feet from the water and sewer lines and 10 feet from the foundation.

236 Ina Street (SVR-6)

This single-story residence is a ranch style home with two occupied residential units. A rental unit is located in the basement with three occupants and the property owner lives on the ground floor. A cold air intake for the furnace was observed at the residence. A schematic of the property is provided in Figure 3b. A private locator marked the approximate locations of the water and sewer lines. One vapor sample was collected within approximately 10 feet of the utility lines and 8 feet from the foundation. An additional vapor sample was collected towards the rear of the property approximately 5 feet from the foundation.

106 Charles Street (SVR-7)

This residence is a single story home occupied by two adults and one infant. The full basement is finished and used for storage. A schematic of the property is provided in Figure 3b. A private locator marked the approximate locations of the water and sewer lines. Due to limited access, the soil vapor sample was collected in the public right of way approximately 7 feet from the foundation of the residence and approximately 18 feet from the utilities.

Monroe Catholic School (SV-12 to SV-15)

Monroe Catholic School does not have a basement; however, a section of the boiler room is approximately 10 feet below grade. Four soil vapor samples (SV-12 to SV-15) were collected at locations near the Monroe Catholic High School (Figure 3b).

Soil Vapor Point Installation

Alaska Digline (811), Golden Heart Utilities (GHU), and City of Fairbanks were notified and soil vapor point locations were adjusted and cleared for underground utilities. In addition, Glacier Point Services, a private locator, was subcontracted to locate water and sewer lines in several homes as well as Monroe Catholic School.

The temporary soil vapor points were advanced by direct push by an Alaska licensed drilling at seven residences and around the Monroe Catholic School at locations shown on Figures 3, 3a, and 3b. Temporary vapor points were installed to 8 feet below ground surface (bgs) at the residences and at one location at the school. Three locations at the school were advanced to 5 feet bgs. All temporary points were installed in a 1.25-inch diameter boring using a ¼" vapor sampling implant with an expendable implant anchor in the bottom of the boring. The anchor ensured that the implant was not in direct contact with native soil. The implant was installed with attached tubing within a 12 inch filter pack and beneath 12 inches of dry granular bentonite to prevent moisture from entering the filter pack from above. Hydrated bentonite was used to fill the rest of the boring to ground surface. To allow for the subsurface to equilibrate back to representative conditions, the sampling of soil vapor was conducted at least two hours after installation.

Two soil vapor points were installed at each of the residences with the exception of SVR-5 and SVR-7, where only one soil vapor point was installed due to access limitations.

Soil Vapor Sampling and Analysis

At each of the residences and at one location at the school, samples were collected from approximately 8 feet bgs, coincident with the depth of a typical basement floor. At the school, three samples were collected from 5 feet bgs. A leak test using isopropyl alcohol with a shroud was conducted at every sampling point to evaluate whether ambient air was introduced into the soil vapor sample during the collection process. Field sheets from the investigation are provided in Appendix B.

A photoionization detector (PID) was used to measure concentrations within the initial soil vapor prior to purging or sampling. Once the shut-in test confirmed a tight connection, an appropriate volume was purged into a 6L summa canister. Purge volume was calculated based on the internal volume of the tubing, the void space of the filter pack, and the void space of the dry bentonite. The volume of air purged was calculated based on the change in pressure observed in the summa canister.

During soil vapor sampling, barometric pressure, temperature, and surface inversion occurrence were recorded simultaneously. Barometric pressure ranged from 28.99 inches Hg to 29.19 in Hg and temperatures ranged from 35°F to 49°F. Surface inversion was not occurring during any of the soil vapor sampling.

The soil vapor sample was collected into a 1L summa canister within a sealed shroud with isopropanol on a cotton ball. A PID was used the measure the concentration of the isopropanol in the shroud. Following collection, all samples were appropriately labeled with the sample ID, date and time of collection, and sampler's initials and shipped to the laboratory under standard chain-of-custody procedures.

The soil vapor samples were analyzed for volatile organic compounds (VOCs) by EPA Method TO-15 and for fixed gases by ASTM D1946.

QUALITY ASSURANCE/QUALITY CONTROL

Field QA/QC Standard Measures

In addition to the shut-in test and the leak check with isopropanol, the following was implemented in the field as quality control to improve confidence in the measured concentrations:

- One field duplicate and one split sample was collected.
- A down hole gauge was present on the manifold during sampling to ensure that soil vapor was not collected under high vacuum conditions.
- The sampling and purge rates were maintained between 75mL to 200mL per minute.

Leak Check with Shroud and Isopropanol

Soil vapor samples were collected into 1L summa canisters within a sealed shroud with a cotton ball soaked with isopropanol inside to evaluate sample integrity. The concentration of isopropanol inside of the shroud was measured using a PID and the lowest concentration recorded was approximately 81,000 µg/m3. Significant leakage is considered present when the tracer compound is present in the test sample at more than 10% of the source concentration (ADEC 2012). Two canisters contained concentrations of isopropanol above 10% of the concentration inside the shroud, SVR-6B and the split of SVR-4B. All other concentrations in the canisters were far below 10%. Per ADEC, samples with less than 10% of the leak compound are considered representative and reveals that the sample quality is of a high integrity.

Field Split

A split sample was collected from SVR-4B to evaluate the precision of the overall analysis process; however, this split revealed concentrations of isopropanol above 10% of the source concentration despite there being concentrations of isopropanol at 1% in the other sample. It is possible that this leak is due to loose fittings on the summa canister provided by the laboratory. Due to the isopropanol, this split sample could not be used to assess precision.

Field Duplicate

A duplicate sample from SV-14 was collected in order to evaluate the precision of the overall sample collection methodology and the consistency of environmental conditions through the calculation of the Relative Percent Difference (RPD) for duplicate pairs.

Chlorinated solvents were not detected in SV-14, however calculations of other constituents are used for the purposes of this evaluation. Based on results expressed in micrograms per cubic meter (µg/m^3), the RPDs for toluene and ethylbenzene were calculated as follows:

Toluene: (86-79) / {(86 + 79/2)} x 100% = 8.48%
Ethylbenzene: (12-9.4) / {(12+9.4/2)} x 100% = 24.29%

The RPD was less than 25% for the duplicate pair, which met QA/QC limits for the RPD per ADEC's Laboratory Data Review Checklist. This reveals that samples of acceptable quality were collected in the field and that subsurface conditions are represented in the samples with the exception of SVR-6B and the split from SVR-4B.

Laboratory QA/QC Standard Measures

The laboratory implemented its own internal QA/QC measures including but not limited to method blanks, calibration checks, reporting limit verifications, instrument blanks, and laboratory control samples.

An ADEC Laboratory Data Review Checklist was completed to QA/QC the laboratory analytical results and is provided in Appendix C. No discrepancies or errors that would affect data usability were noted with the exception of SVR-6A. The canister was found to be leaking when tested at the laboratory. The sample analysis was subsequently canceled.

SOIL VAPOR ANALYTICAL RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

The analytical results are provided in Table 2 and are compared with target levels for shallow soil vapor samples in a residential setting established by ADEC's October 2012 Vapor Intrusion Guidance to evaluate potential vapor intrusion risks. The laboratory analytical report is provided in Appendix C.

Concentrations of constituents related to petroleum releases are provided in Table 2. For the purposes of this investigation, only concentrations of constituents that may have originated at the Bentley Mall (chlorinated volatile organic compounds (CVOCs)) are discussed further herein. The source of petroleum contamination should be investigated by the appropriate responsibility party.

Discussions with ADEC indicate that concentrations in soil vapor and risk to indoor air could be highest in September-October due to cooling temperatures and use of heating before the ground freezes. Therefore, it is recommended that sampling of soil vapor and indoor air be done in September-October.

Tetrachloroethene (PCE), trichloroethene (TCE), and trans-1,2 dichloroethene (trans-1,2 DCE) were detected above their respective target levels in one or more soil vapor samples collected at three residences, 208 Charles St, 120 Ina St, and 201 Ellingson St.

311 Noyes Street (SVR-1)

Soil vapor samples collected near this residence did reveal concentrations of PCE and trans-1,2 DCE, however these concentrations are below ADEC's target level for these compounds. These concentrations suggest no significant risk from potential vapor intrusion, however additional soil vapor sampling in September-October is recommended.

208 Charles Street (SVR-2)

A soil vapor sample from SVR-2B revealed a concentration of trans-1,2 DCE above its respective ADEC target level. This location is on the southern side of the residence near Charles Street, which in 2015 had elevated concentrations of trans-1,2 DCE detected in soil vapor samples collected in the public right of way. In contrast, a soil vapor sample from a second location, SVR-2A, on the eastern side of the residence revealed a concentration of trans-1,2 DCE below the target level. Because concentrations in SVR-2B exceed ADEC target levels, samples of indoor air in September-October is recommended at this residence.

625 Noyes Street (SVR-3)

Soil vapor samples collected near this residence revealed concentrations of PCE and TCE below ADEC's target level. However, PCE was detected at a concentration within 5% of the target level at 400 $\mu g/m^3$ in SVR-3B. Due to this potential risk of vapor intrusion to human health, it is recommended that indoor air samples be collected in September-October.

120 Ina Street (SVR-4)

A soil vapor sample from SVR-4A revealed a concentration of trans-1,2 DCE above its respective ADEC target level and a soil vapor sample from SVR-4B revealed concentrations of PCE and TCE above their respective target levels. However, indoor air samples previously collected inside the residence in November 2015 and January 2016 did not reveal concentrations of PCE, TCE, or trans-1,2 DCE above ADEC target levels (Biomax November 2015 and March 2016). It is recommended that indoor air samples be collected in September-October to assess potential risk of vapor intrusion to human health.

201 Ellingson Street (SVR-5)

A soil vapor sample from SVR-5 revealed concentrations of PCE and TCE above their respective target levels. Samples of indoor air collected in September-October is recommended at this residence.

236 Ina Street (SVR-6)

As described above, the soil vapor samples from SVR-6A and SVR-6B were found to be comprised due to leakage. Resampling of the locations is recommended in September-October since the potential risk of vapor intrusion could not be evaluated during this event.

106 Charles Street (SVR-7)

Soil vapor sample collected near this residence did reveal a concentration of trans-1,2 DCE, however the concentration is below ADEC's target level. This concentration suggests no significant risk from potential vapor intrusion, however additional sampling of soil vapor in September-October is recommended.

Monroe Catholic School (SV-12 to SV-15)

Soil vapor samples collected near the school did not reveal concentrations of chlorinated solvents with the exception of one sample, which revealed a concentration of PCE far below the ADEC target level. This

concentration suggests no significant risk from potential vapor intrusion, however additional sampling in the September-October is recommended.

Figures 4, 5, and 6 present the concentrations of PCE, TCE, and trans-1,2 DCE detected in the 2010 passive soil vapor samples and the 2015 and 2016 soil vapor samples. In October 2010, thirty (30) passive soil vapor samples were collected along Noyes Street to the west of the Bentley Mall and PCE detections were mainly clustered between 620 and 640 Noyes Street (ERG, January 2011). In 2015 and 2016, elevated concentrations of chlorinated solvents were detected mainly around SV-6, SVR-4 and SVR-5, along Noyes Street, Ina Street, and along Charles Street.

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the recent soil vapor investigation:

- Barometric pressure ranged from 28.99 inches Hg to 29.19 in Hg and temperatures ranged from 35°F to 49°F. Surface inversion was not occurring during any of the soil vapor sampling.

- PCE, TCE, and trans-1,2 DCE were detected above their respective target levels in one or more soil vapor samples at three separate residences.

- A duplicate sample was collected from SV-14. The RPD was less than 25% for the duplicate pair, which met QA/QC limits and reveals that samples of acceptable quality were collected in the field and that subsurface conditions were represented in the samples.

- Indoor air samples collected at 120 Ina Street did not reveal concentrations of PCE, TCE, or trans-1,2 DCE above ADEC target levels in two sampling events.

- Elevated concentrations were detected mainly around SVR-5, SVR-4B, along Noyes Street, and along Charles Street.

- Samples collected around Monroe Catholic School did not reveal concentrations of PCE, TCE, or trans-1,2 DCE above ADEC target levels.

- In general, the distribution of CVOC concentrations in ground water is similar to the distribution in soil vapor.

- It is recommended that indoor air samples be collected at 208 Charles St, 625 Noyes St, 120 Ina St, and 201 Ellingson St. All homes evaluated in this investigation had similarly constructed basements. It is recommended that 3-5 other homes in the subdivision that have differently constructed basements including crawl space, earthen floor, etc be similarly evaluated. Testing would occur in September-October, when ADEC indicated that the risk to indoor air was likely greatest.

Please call if you have any questions or comments, or if we can be of further assistance.

Sincerely,
Environmental Resource Group, Inc.

Benjamin Wells
President

Steve Michelson
Professional Geologist

Tables
Figures
Appendix A: Questionnaires
Appendix B: Field Sheets
Appendix C: Laboratory Analytical Reports

TABLES

Table 1
Constructions of Residences and School
Charles Slater Subdivision, Fairbanks, AK

Address	Floor Materials	Wall materials	Basement floor below grade (ft)	Height of ceiling above basement floor (ft)	First floor above grade (ft)	Basement windows	Cold air intake observed	Usage	Soil gas sample depth (ft)	Heating Oil UST(s)
311 Noyes	Concrete slab	Concrete	6	8	2	Yes	No	Tenants	8	Yes
208 Charles St	Unknown	Concrete*	7	8	1	Yes	Yes	Storage	8	Yes
625 Noyes St	Concrete slab*	Concrete	6	8	2	Yes	No	Storage	8	Yes
120 Ina St	Concrete slab	Concrete Blocks	6	8	2	Yes	No	Storage	8	Yes
201 Ellingson St	Concrete slab	Concrete Blocks	7	8	1	Yes	No	Tenants	8	Yes
236 Ina St	Concrete slab*	Concrete Blocks	7	8	1	Yes	Yes	Tenants	8	Yes
106 Charles St	Concrete slab*	Concrete*	8	8	0	No	No	Storage	8	Yes
School - Boiler Room	Concrete slab	Concrete	10	20	0	No	No	Facilities	5	Yes
School - Slab area	Concrete slab	Concrete	NA	NA	0	NA	No	School	5, 8	Yes

Notes:
ft: feet
All measurements are approximate
* Not directly observed, materials are assumed
Wall materials based on observation of exposed exterior construction

Table 2
Soil Vapor Results
Charles Slater Subdivision, Fairbanks, AK

Sample ID	Location	Date Sampled	Sample Depth (ft bgs)	QA/QC Code	Isopropanol*	Tetrachloroethene	Trichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	Freon 12	Freon 11	Acetone	Ethanol	Tetrahydrofuran	Chloroform	Hexane	Benzene	Cyclohexane	Heptane	4-Methyl-2-pentanone	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	Cumene	Propylbenzene	4-Ethyltoluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	2-Butanone (Methyl Ethyl Ketone)	Oxygen	Nitrogen	Methane	Carbon Dioxide	Laboratory Initial Pressure	Initital Pressure (Field)	Final Pressure (Field)	Laboratory Final Pressure
					µg/m3																										%				in Hg			
ADEC Target Levels					--	**420**	**21**	**630**	**52,100**	**1,000**	**7,300**	**322,000**	--	--	**11**	**7,300**	**31**	**62,600**	--	**3,130**	**52,100**	**97**	**1,000**	**1,000**	**4,200**	**10,400**	--	**73**	**73**	**52,100**	--	--	--	--	--	--	--	--
SVR1A	311 Noyes St	24-Mar	8	C	46	30	<5.4	17	<5.4	29	<5.6	<24	9.5	<2.9	<4.9	4.6	8.8	<3.4	17	5.0	140	14	42	12	<4.9	<4.9	5.3	<4.9	4.9J	<12	21	78	<0.00021	0.75	30	21	1	0.41
SVR1B		24-Mar	8	--	<10	140	<5.4	<4	<5.5	110	25	31	<7.6	<3	<5	<3.6	<3.2	<3.5	<4.3	5.4	31	<4.4	10	<4.4	<5	<5	<5	<5	<5	<12	21	78	<0.0002	0.91	30	29	2	0.2
SVR2A	208 Charles St	24-Mar	8	--	<49	<34	<27	380	<27	<24	280	<120	<37	<15	<24	30	<16	380	220	<20	560	920	4,000	3,900	780	1,100	5,400	4,100	5,900	<58	19	78	<0.0002	3.2	30	30	2	0.2
SVR2B		24-Mar	8	--	<9.8	8.6	<4.9	1,300	<5.5	<4.9	220	<25	<7.8	<3	10	<3.6	<3.2	<3.5	<4.3	<4.1	8.6	<4.9	5.6	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<12	19	78	<0.0002	3.4	30	30	2	0
SVR3A	625 Noyes St	24-Mar	8	--	10	250	13	<3.7	<5.7	7.1	<5.8	<25	<7.8	7.1	<5.1	<3.7	<3.3	<3.6	<4.3	<4.3	90	20	71	18	<5.1	<5.1	7.9	<5.1	<5.1	<12	20	77	<0.0002	2.7	30	27	2	1
SVR3B		24-Mar	8	--	42	400	16	<4.2	<5.8	<5.3	<6	<25	<8	<3.1	<5.1	<3.8	<3.4	<3.7	<4.3	<4.4	10	<4.6	4.8	<4.6	<5.2	<5.2	<5.2	<5.2	<5.2	<12	20	78	<0.0002	2.1	30	29.5	2	1.4
SVR4A	120 Ina St	25-Mar	8	--	<67	95	<37	7,600	<37	<34	<38	<160	<52	<20	<33	<24	<22	<24	<28	<28	200	50	180	56	<34	<34	<34	<34	<34	<81	20	78	<0.0002	2.1	30	30	2	0.8
SVR4B		25-Mar	8	C	1,100E	1,500	110	38	<5.7	8.4	7.6	<25	<8	<3.1	<5.1	<3.8	6.6	<3.7	6.3	<4.4	270	38	120	33	<5.1	<5.1	13	<5.1	7.3	<12	18	79	<0.0002	3	30	26	1	1
SVR4B-DUP		25-Mar	8	A	320,000	<7200	<5700	<4200	<5800	<5200	<5900	12,000	<8000	<3100	<5200	<3700	<3400	<3600	<4300	<4300	<4000	<4600	<4600	<4600	<5200	<5200	<5200	<5200	<5200	<12000	21	78	<0.0002	0.79	30	26	1	1.4
SVR5	201 Ellingson St	25-Mar	8	C	20	760	47	<3.9	85	13	670	<25	<8	<3.1	4.8	<3.6	<3.2	<3.5	<4.3	<4.1	9.8	<4.3	<4.3	<4.3	<4.9	<4.9	<4.9	<4.9	<4.9	<12	19	78	<0.0002	2.9	30	23	2	0.8
SVR6A	236 Ina St	25-Mar	8	B	Canister found to be leaking upon arrival to laboratory; sample analysis canceled																														30	20	2	1.2
SVR6B		25-Mar	8	A,C	33,000	<550	<440	<320	<440	<400	<460	1,100	<610	<240	<400	<280	<260	<280	<330	<330	<300	<350	<350	<350	<400	<400	<400	<400	<400	<960	21	78	<0.0002	0.8	30	23	1	0.8
SVR-7	106 Charles St	25-Mar	8	--	70	<6.4	<5.1	22	<5.2	<4.7	21	<22	<7.2	<2.8	<4.6	<3.3	<3	<3.3	4.8	<3.9	44	4.7	13	<4.1	<4.7	<4.7	<4.7	<4.7	<4.7	<11	18	78	<0.0002	4.3	30	30	2	1.6
SV-12	Monroe Catholic School	25-Mar	5	C	220	27	<5.2	<3.7	<5.3	17	80	<22	<7.2	<2.8	<5.1	<3.7	<3.3	4.8	6.0	<3.9	160	<4.3	7.9	<4.3	<4.7	<4.7	<4.7	<4.7	<4.7	<11	20	78	0.00024	1.8	30	25	2	1.2
SV-13		25-Mar	5	--	<10	<5.2	<5.6	<4.2	<5.7	25	67	<25	<7.8	<3.1	75	<3.7	<3.3	<3.3	<3.3	<3.9	12	<5.2	5.6	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<12	21	78	<0.0002	0.82	30	29	2	1.2
SV-14		25-Mar	5	--	62	<5.2	<5.4	<4.2	<5.8	13	<6	94	<7.8	4.4	<5.1	<3.8	<3.4	<3.7	<4.3	6.6	79	9.4	23	6.0	<5.2	<5.2	<5.2	<5.2	<5.2	23	21	78	0.00021	1.3	30	30	2	1.8
SV-14-DUP		25-Mar	5	--	45	<7.3	<5.8	<4.3	<5.9	13	<6.1	80	<8	3.7	<5.3	<3.8	<3.4	<3.4	<4.4	6.2	86	12	32	8.5	<5.3	<5.3	<5.3	<5.3	<5.3	18	20	79	<0.0002	1.3	30	30	2	2.2
SV-15		25-Mar	8	C	19	<5.2	<5.7	<4.2	<5.8	27	32	<25	<7.8	<2.8	<5.1	<3.8	<3.4	<3.7	<4.3	<5.2	5	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<12	16	77	<0.00021	7	30	26.5	0.5	1.8

Notes:

µg/m^3: micrograms per cubic meters
<: not detected above the reporting limit or method detection limit as shown
*: leak check compound
J: estimated value
E: exceeds instrument calibration range

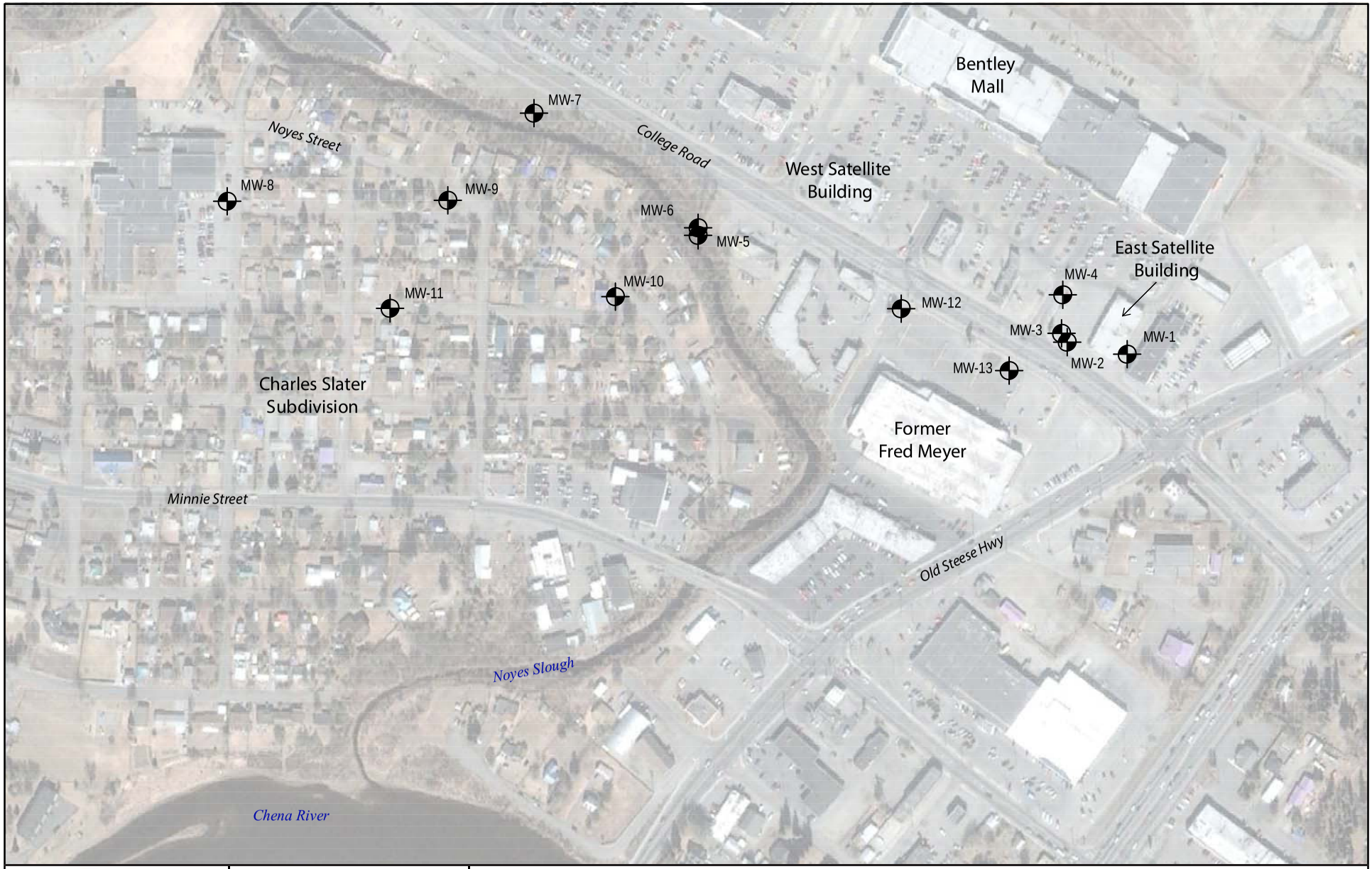
SVR4B-DUP: Split from SVR4B
SV-14-DUP: Duplicate from SV-14

ADEC Target Levels are acquired from the October 2012 Vapor Intrusion Guidance Appendix E for Shallow Soil Gas in a Residential Setting

QA/QC Codes

A: leak check compound exceeds 8000 µg/m3
(Lowest concentration of isopropanol measured in shroud was 33ppmv or 81,103µg/m3. 10% of source concentrations is 8,110.)
B: Canister leaking upon arrival at lab
C: Canister pressure lower than 10% upon receipt in field

FIGURES



ENVIRONMENTAL RESOURCE GROUP

Graphics: C. Cary | Date: 11/10/2015

Figure 1

Site Vicinity

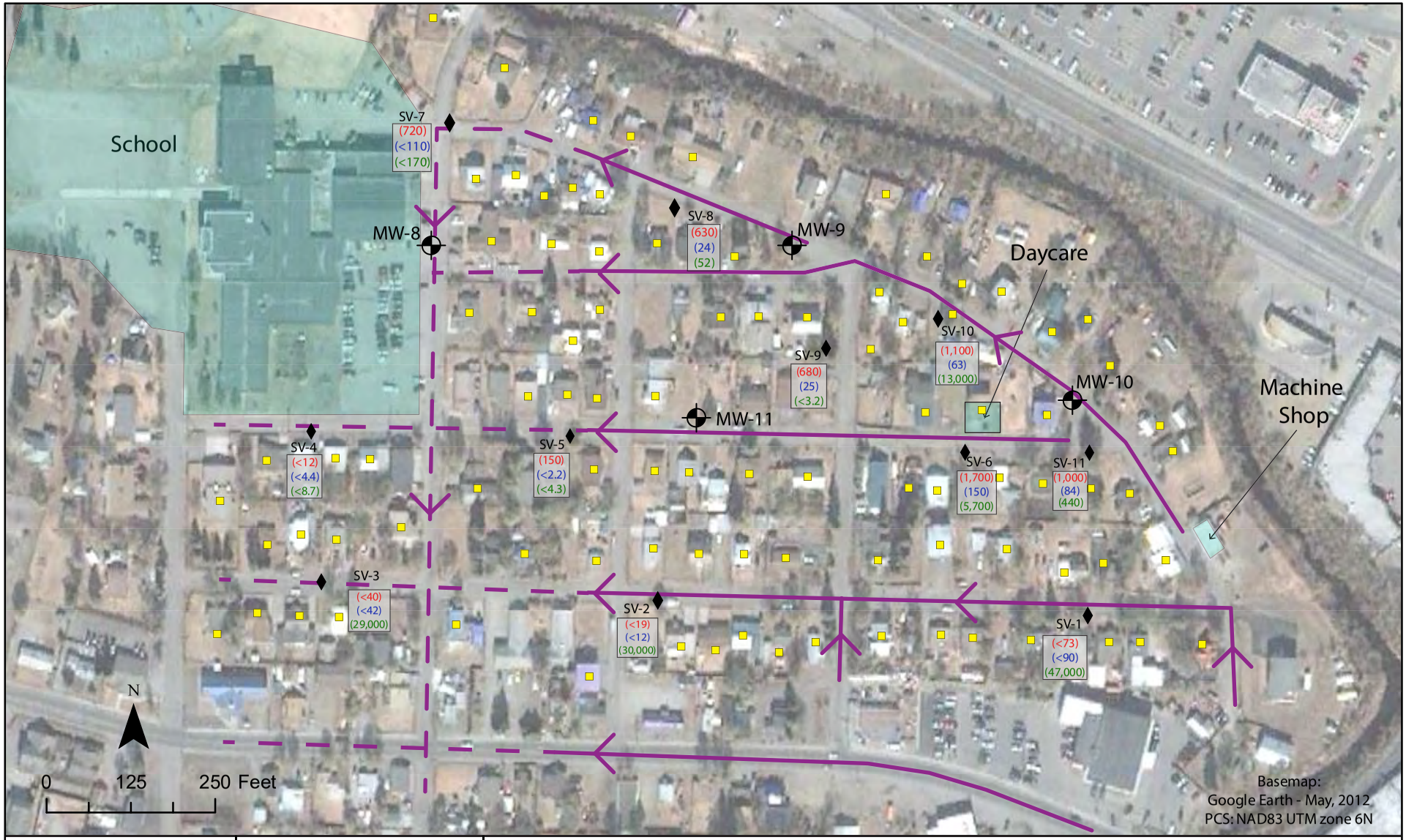
Bentley Mall
Fairbanks, AK

Monitoring well

0 200 400
Feet

N

Basemap:
Google Earth - May, 2012
PCS: NAD83 UTM zone 6N



ENVIRONMENTAL RESOURCE GROUP

Graphics: C. Cary | Date: 03/03/2016

Figure 2

Previously Sampled Locations

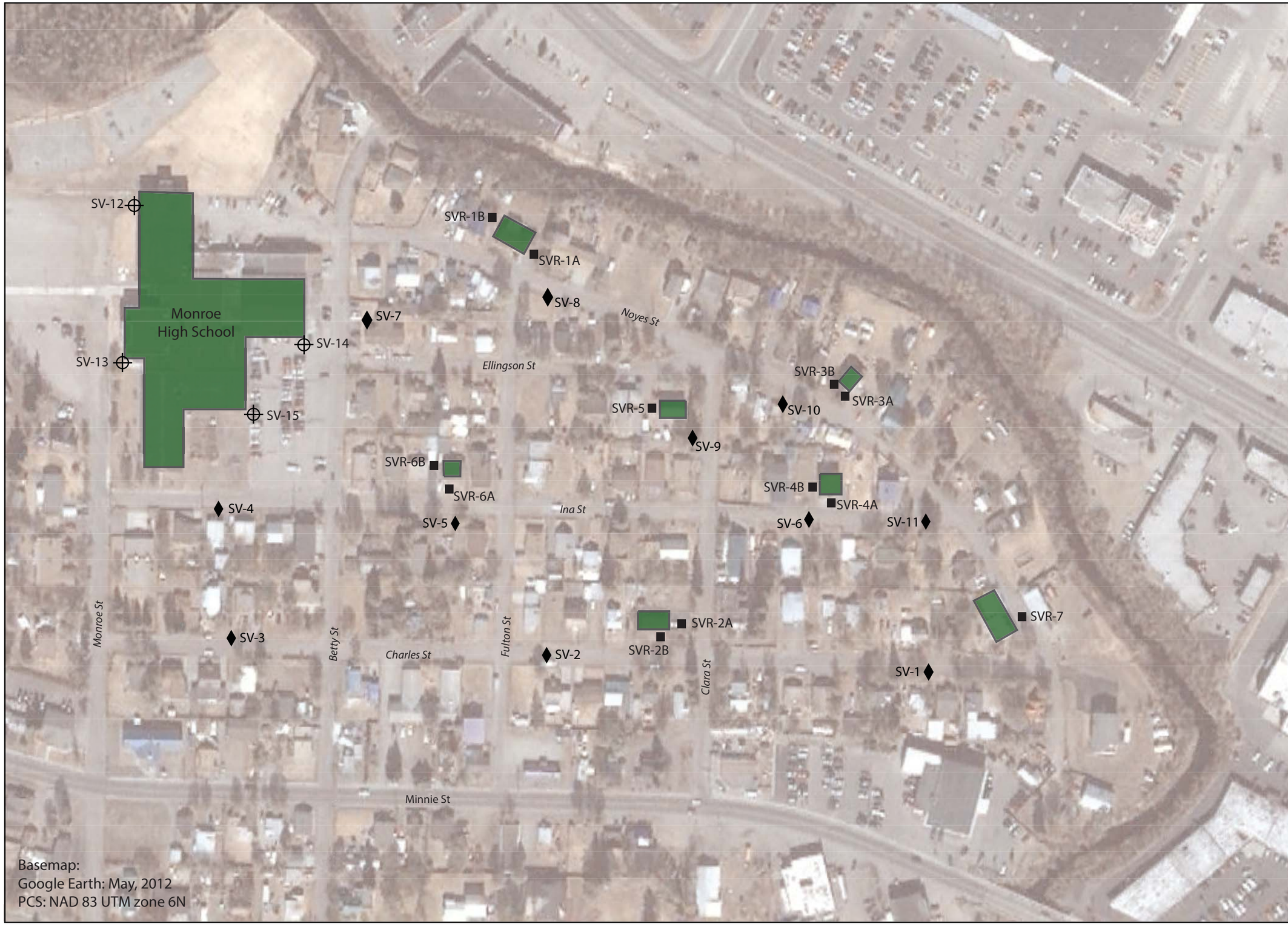
Charles Slater Subdivision
Fairbanks, AK

- Monitoring well
- Soil vapor point (8' depth)
- Residence with a basement
- (PCE) (TCE) (trans-1,2 DCE) Concentrations (µg/m³)
- Sanitary sewer and flow direction based on ADEC provided utility map
- Sanitary sewer and flow direction based on field observations

Figure 3

Soil Vapor Investigation

Bentley Mall, Fairbanks, AK



Soil Vapor Property Locations

Samples taken at 5'bgs between 3/24/2016 and 3/25/2016

Samples taken at 8'bgs between 3/24/2016 and 3/25/2016

Samples taken at 8'bgs between 9/15/2015 and 9/17/2015

N

0 75 150 Feet

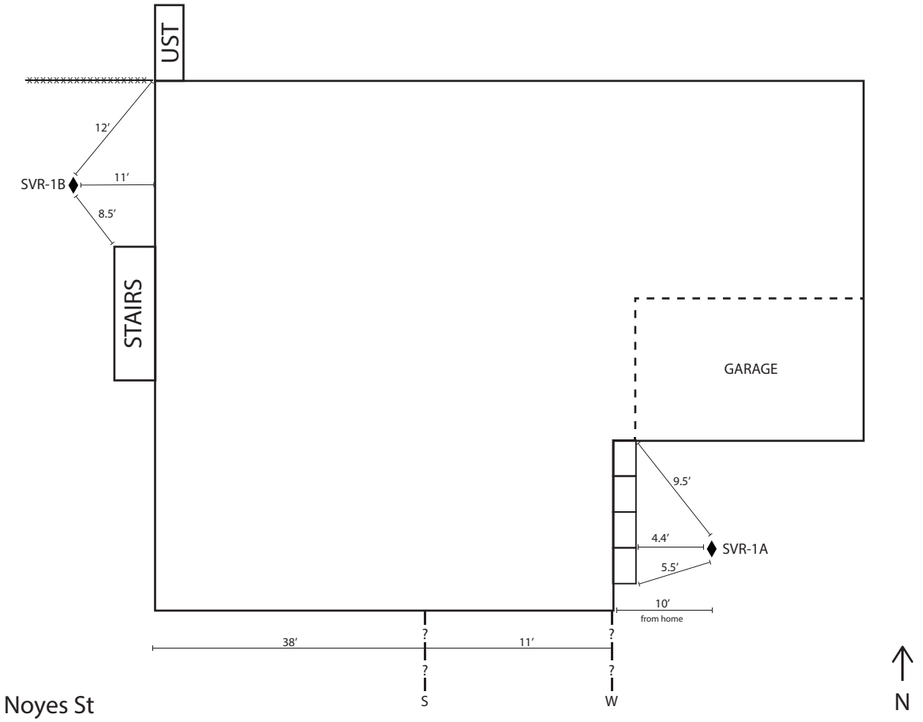
ENVIRONMENTAL RESOURCE GROUP

Graphics C. Cary	Date: 04/22/2016

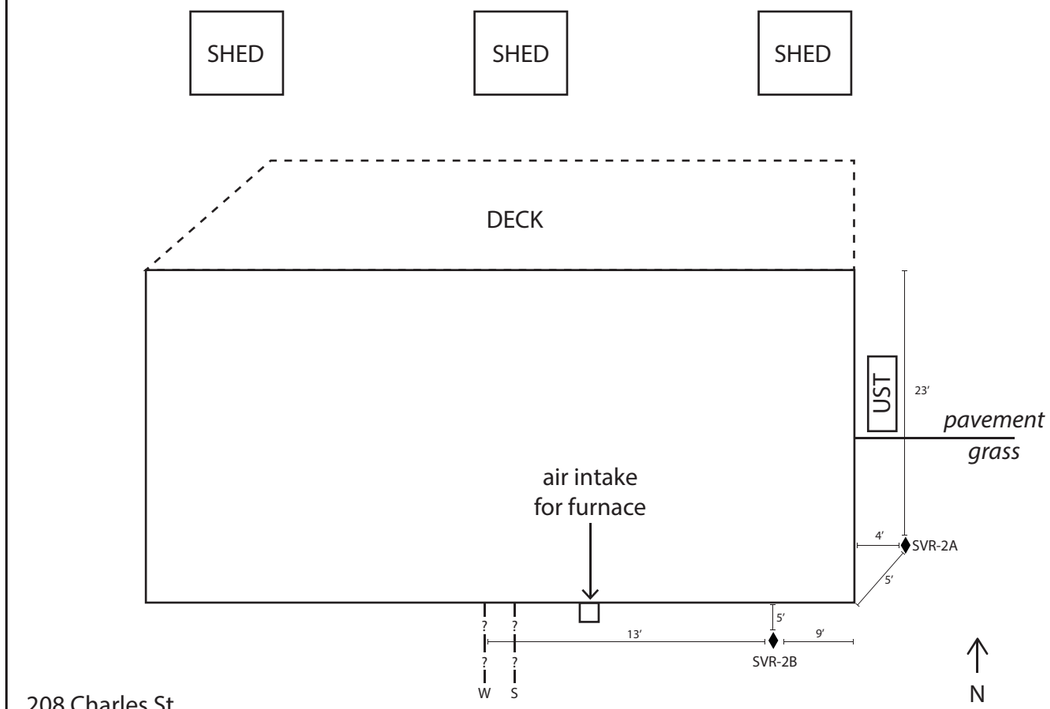
Figure 3a

Soil Vapor Investigation

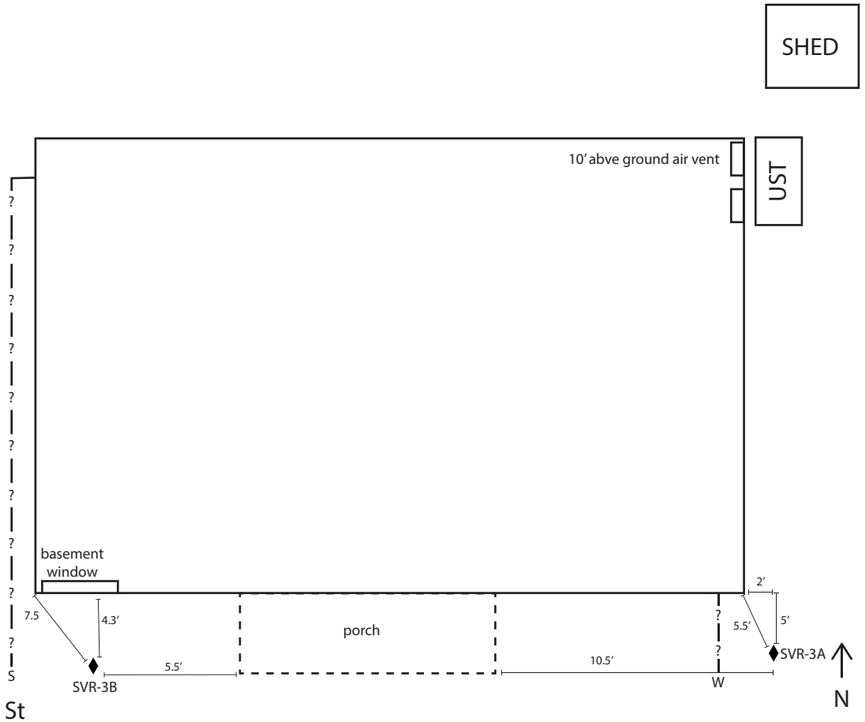
Bentley Mall, Fairbanks, AK



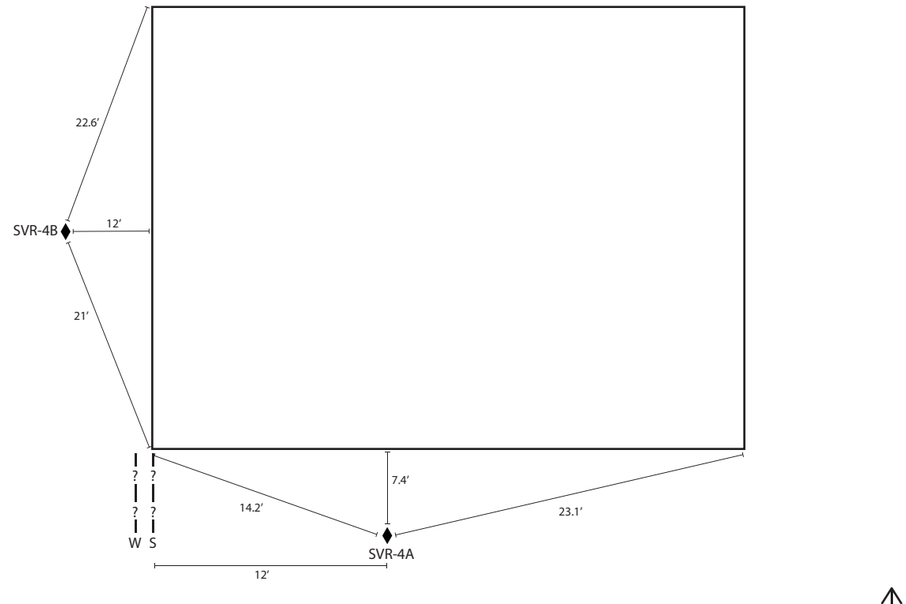
311 Noyes St



208 Charles St



625 Noyes St



120 Ina St

Soil Vapor Well

Approximate Water Line

Approximate Sewer Line

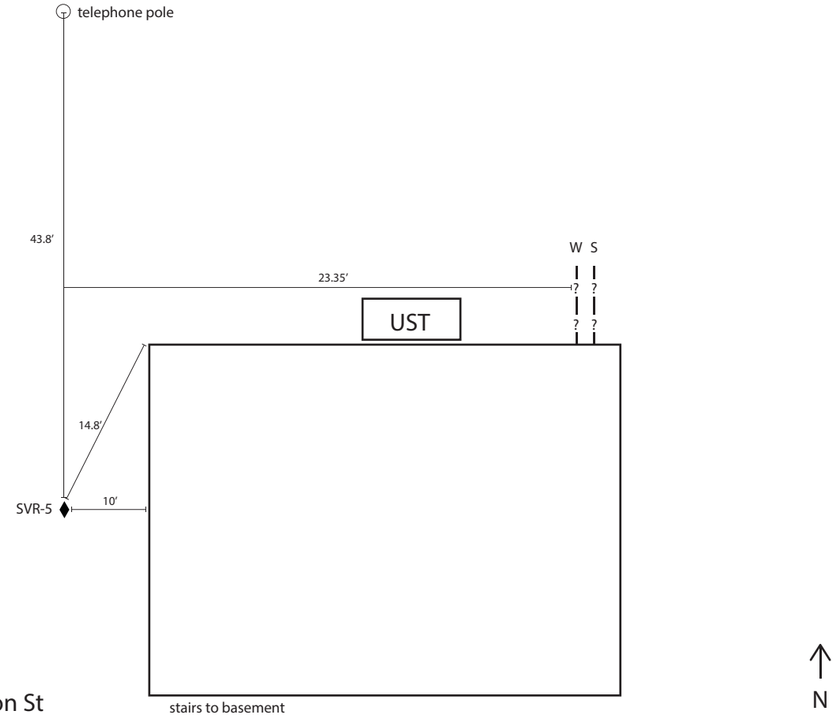
Fence

Not to scale

ENVIRONMENTAL RESOURCE GROUP

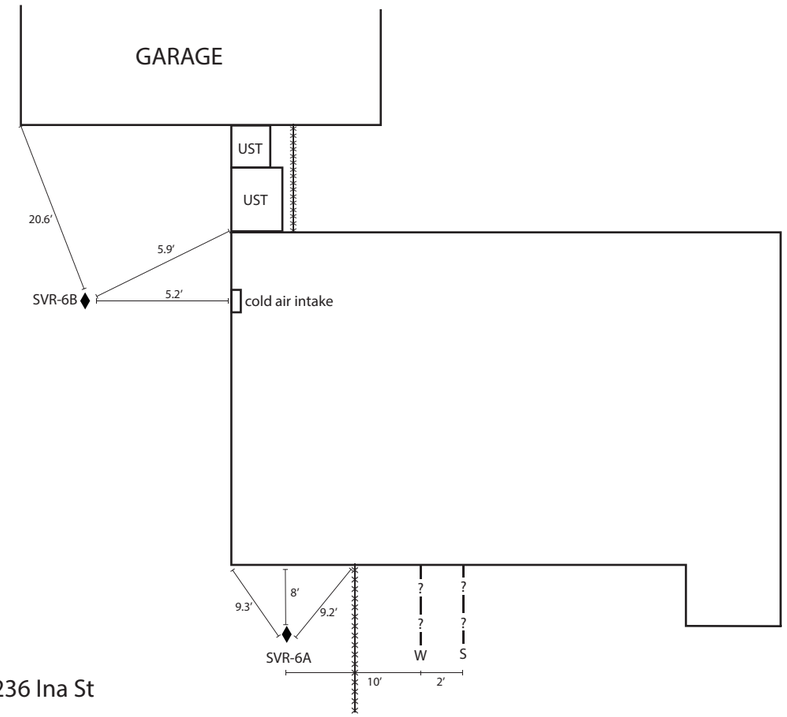
Graphics
C. Cary

Date:
03/29/2016



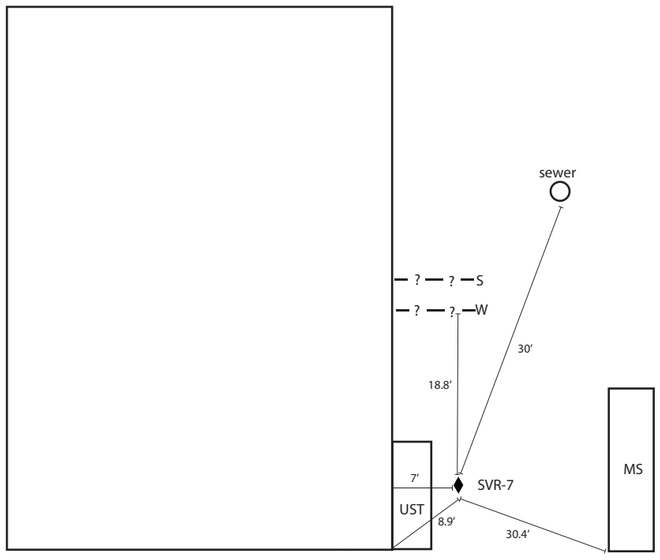
201 Ellingson St

N



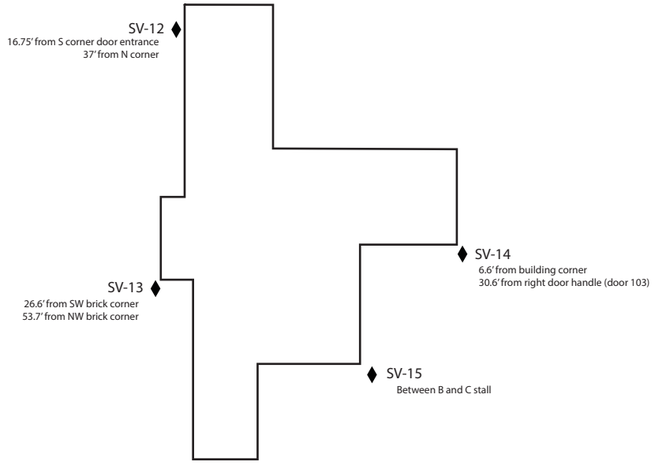
236 Ina St

N



106 Charles St

N



Monroe High School

Figure 3b

Soil Vapor Investigation

Bentley Mall, Fairbanks, AK

- Soil Vapor Well
- Approximate Water Line (W ?)
- Approximate Sewer Line (S ?)
- Fence

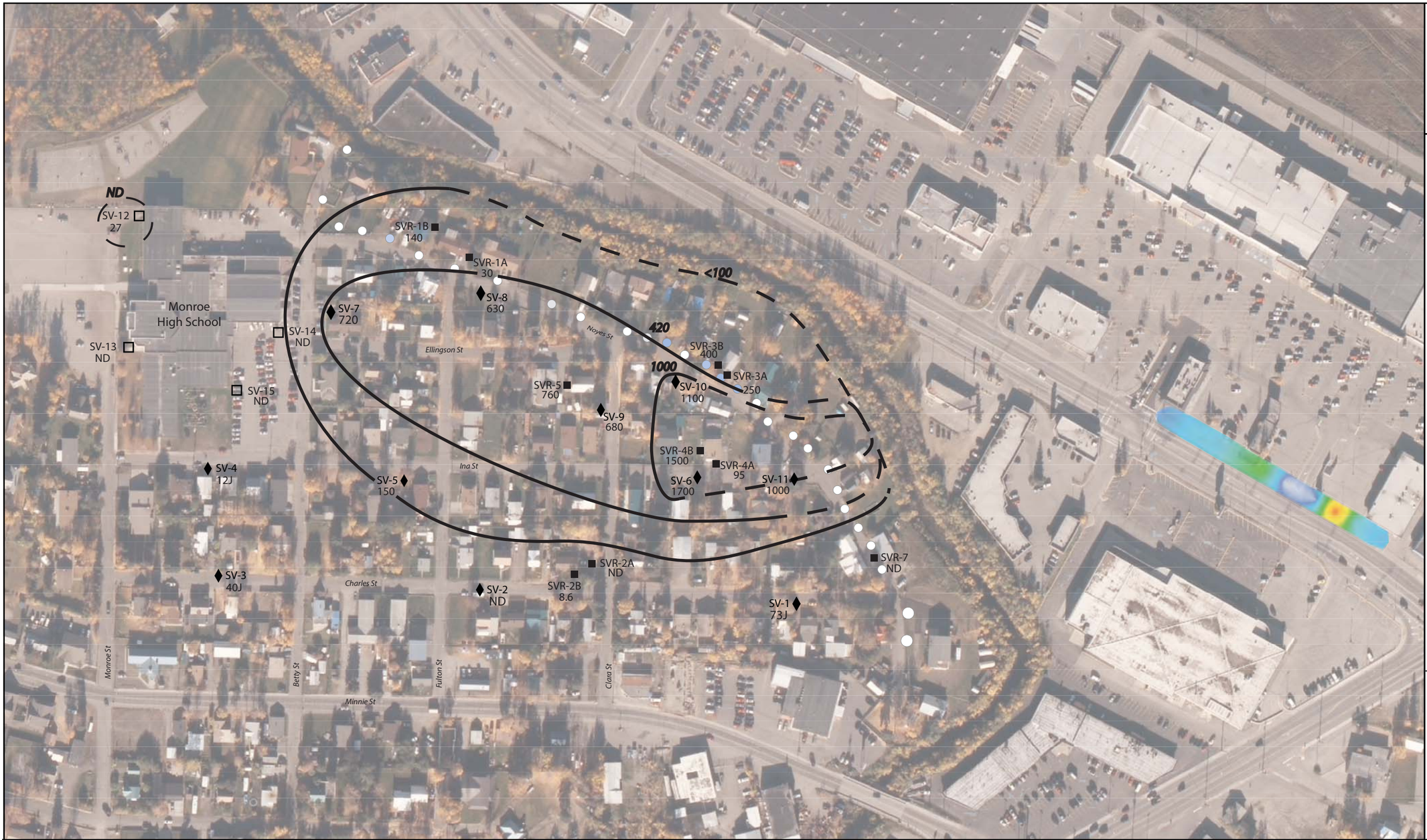
Not to scale

ENVIRONMENTAL RESOURCE GROUP

Graphics	Date:
C. Cary	03/29/2016

Figure 4
Tetrachloroethene (PCE) Soil Vapor Concentrations

Bentley Mall, Fairbanks, AK



2010 Passive Soil Vapor Sample Results at Bentley Mall

Color Scale (nanograms)

- 5,000
- 4,500
- 4,000
- 3,500
- 3,000
- 2,500
- 2,000
- 1,500
- 1,000
- 500
- 0

2010 Passive Soil Vapor Sample Results on Noyes St

(nanograms)

- 81 - 120
- 41 - 80
- 1- 40
- 0

- Samples taken at 5'bgs in March 2016
- Samples taken at 8'bgs in March 2016
- Samples taken at 8'bgs in September 2015
- SVE ## — PCE Concentration (µg/m^3)
- 100 — PCE Isoconcentrations

Notes:

- At locations where multiple samples were analyzed, the higher concentration was used for contouring purposes.
- ADEC target concentration = 420 µg/m^3
- J: Estimated value; not included in contouring
- ND: Not measured above reporting limit

N

0 100 200

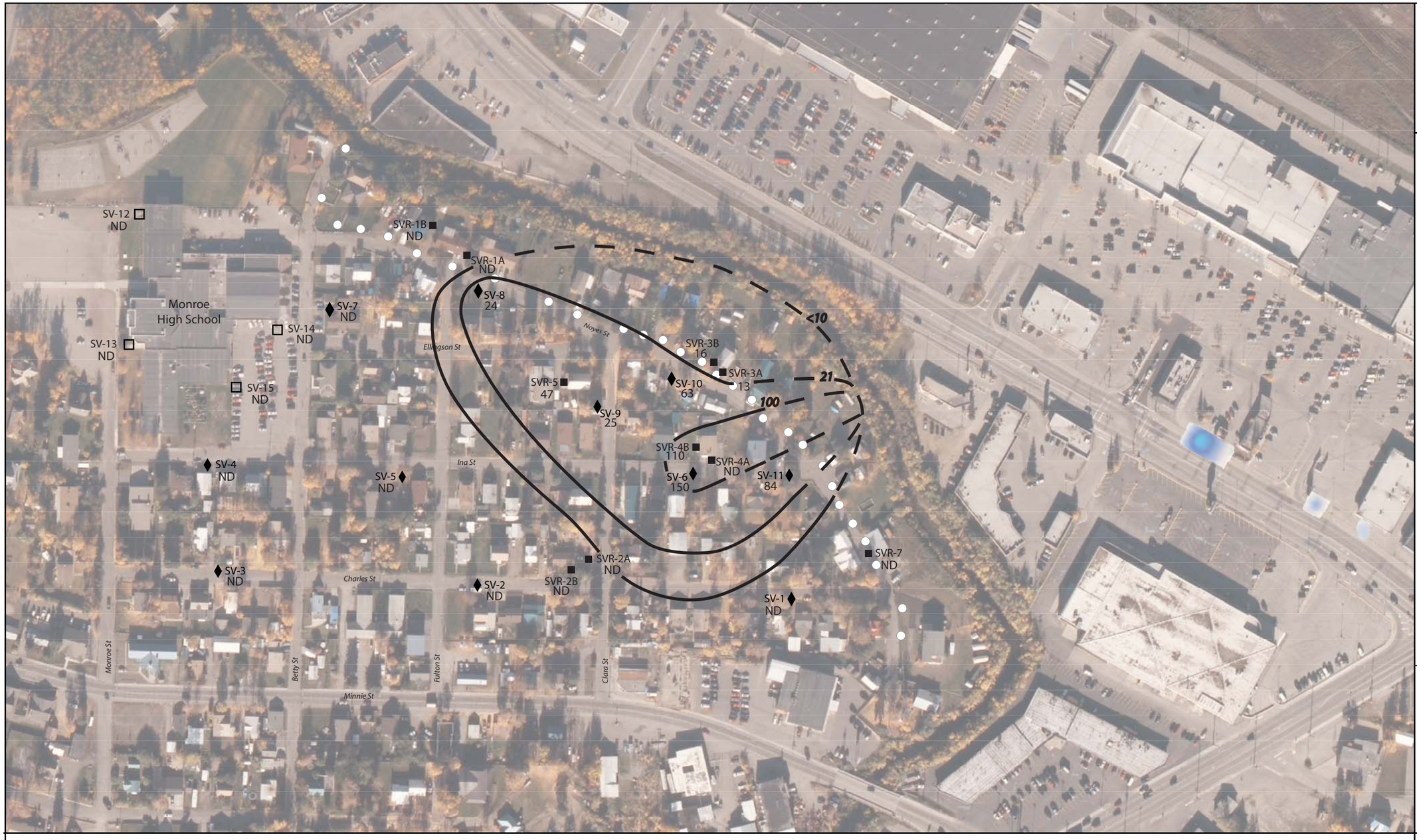
Feet

ENVIRONMENTAL RESOURCE GROUP

Graphics	Date:
C. Cary	04/29/2016

Figure 5
Trichloroethene (TCE) Soil Vapor Concentrations

Bentley Mall, Fairbanks, AK



2010 Passive Soil Vapor Sample Results at Bentley Mall

70 65 60 55 50 45 40 35 30 25 20 15 10 5 -0

Color Scale (nanograms)

2010 Passive Soil Vapor Sample Results on Noyes St

- 81 - 120
- 41 - 80
- 1- 40
- 0

(nanograms)

- Samples taken at 5'bgs in March 2016
- Samples taken at 8'bgs in March 2016
- Samples taken at 8'bgs in September 2015
- SVE ## — TCE Concentration (µg/m)
- 100 — TCE Isoconcentrations

Notes:

- At locations where multiple samples were analyzed, the higher concentration was used for contouring purposes.
- ADEC target concentration = 21µg/m^3
- J: Estimated value; not included in contouring
- ND: Not measured above reporting limit

N

0 100 200

Feet

ENVIRONMENTAL RESOURCE GROUP

Graphics	Date:
C. Cary	04/29/2016

Figure 6
trans-1,2-Dichloroethene (TDCE) Soil Vapor Concentrations

Bentley Mall, Fairbanks, AK

SVE ## TDCE Concentration (µg/m^3)

100 TDCE Isoconcentrations

⌖ Samples taken at 5'bgs in March 2016

■ Samples taken at 8'bgs in March 2016

♦ Samples taken at 8'bgs in September 2015

Notes:

- At locations where multiple samples were analyzed, the higher concentration was used for contouring purposes.
- ADEC target concentration = 630 µg/m^3
- J: Estimated value; not included in contouring
- ND: Not measured above reporting limit

N

0 100 200

Feet

ENVIRONMENTAL RESOURCE GROUP

Graphics C. Cary	Date: 04/29/2016

APPENDIX A: QUESTIONNAIRES

Environmental Resource Group, Inc adapted issue of ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION's BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name DUSTIN STAHL Date/Time Prepared 1/15/2016

Preparer's Affiliation ALASKA RESOURCES + ENVIRONMENTAL SERVICES Phone No. 907-590-0326

Purpose of Investigation

SECTION I: BUILDING INVENTORY

1. OCCUPANT OR BUILDING PERSONNEL:

Interviewed: Y / N

Last Name Barragan First Name Alejandra

Address 120 Inst

City Fbks AK 99701

Phone No. 907 347-7960

Number of Occupants/people at this location 5 Age of Occupants 19months, 16, 13, 11 32.

2. OWNER or LANDLORD: (Check if same as occupant ____.)

Interviewed: Y / N

Last Name Barragan First Name Alejandra

Address 120 Inst

City Fbks AK 99701

Phone No. 907 347-7960

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response.)

(Residential)	School	Commercial/Multi-use
Industrial	Church	(Other) AND DAYCARE

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	(Apartment House)	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many? 2nd Floor owner occupied unit, Basement unoccupied unit

If the property is commercial, what type?

Business types(s) DAYCARE

Does it include residences (i.e., multi-use)? (Y) / N

If yes, how many? 2 - 1 2nd FLOOR APARTMENT that is owner occupied 1- Basement Apartment (unused/unoccupied)

Other characteristics:

Number of floors 2 PLUS BASEMENT

Building age_____

Is the building insulated? (Y) / N

How airtight? Tight / (Average) / Not Tight

Have occupants noticed chemical odors in the building? Y / (N)

If yes, please describe:_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

AIR RISES OPEN STAIRS FROM 1ST TO 2nd FLOOR DUE TO STACK EFFECT. INCREASES WHEN 2nd FLOOR BATH FANS +/or DRYER IS ON

Airflow in building near suspected source

Outdoor air infiltration

SOME WINDOWS ON 1ST + SECOND FLOOR DONT CLOSE TIGHTLY, SMALL GAPS UNDER MOST DOORS

Infiltration into air ducts N/A BASE BOARD HEAT

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

a. Above-grade construction: (wood frame) log concrete brick
constructed on pilings with enclosed air space
constructed on pilings with open air space

b. Basement type: (full) crawlspace slab-on-grade other_____

c. Basement floor: (concrete) dirt stone other _____

d. Basement floor: unsealed (sealed) sealed with PAINT

e. Foundation walls: (poured) (block) stone other _____

f. Foundation walls: unsealed (sealed) sealed with PAINT

g. The basement is: wet (damp) dry

h. The basement is: (finished) unfinished + partially finished TOILET, KITCHEN, ect Needs upgrades + repairs

i. Sump present? (Y) / N IN Furnace Room

j. Water in sump? Y (N) / not applicable

Basement or lowest level depth below grade 6 (feet).

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

Sump, foundation cracks

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by: Fuel oil Boiler

Boiler/furnace is located in: (Basement) Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? (Y) / N BOILER

Type of air conditioning or ventilation used in this building:

Central air	Window units	(Open windows)	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? Y / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

BATHROOMS EACH HAVE FAN VENTED TO OUTDOORS
HALLWAY BATH HAS DRY VENTED TO OUTDOORS

Is there a radon mitigation system for the building/structure? Y / (N) Date of Installation _____

Is the system active or passive? Active/Passive N/A

7. **OCCUPANCY**

Is basement/lowest level occupied? Full-time Occasionally Seldom [Almost never]

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	Apartment space (unoccupied) - currently used as storage
1st Floor	KITCHEN, 2 DAYCARE ROOMS (1 toddlers, 1 older kids) currently 5 toddlers M-F
2nd Floor	Owner occupied - ~~Adults, Child toddler~~ 1 ADULT (32), 4 KIDS
3rd Floor	N/A 19 months, 11yrs, 13yrs, 16yrs.

8. **WATER AND SEWAGE**

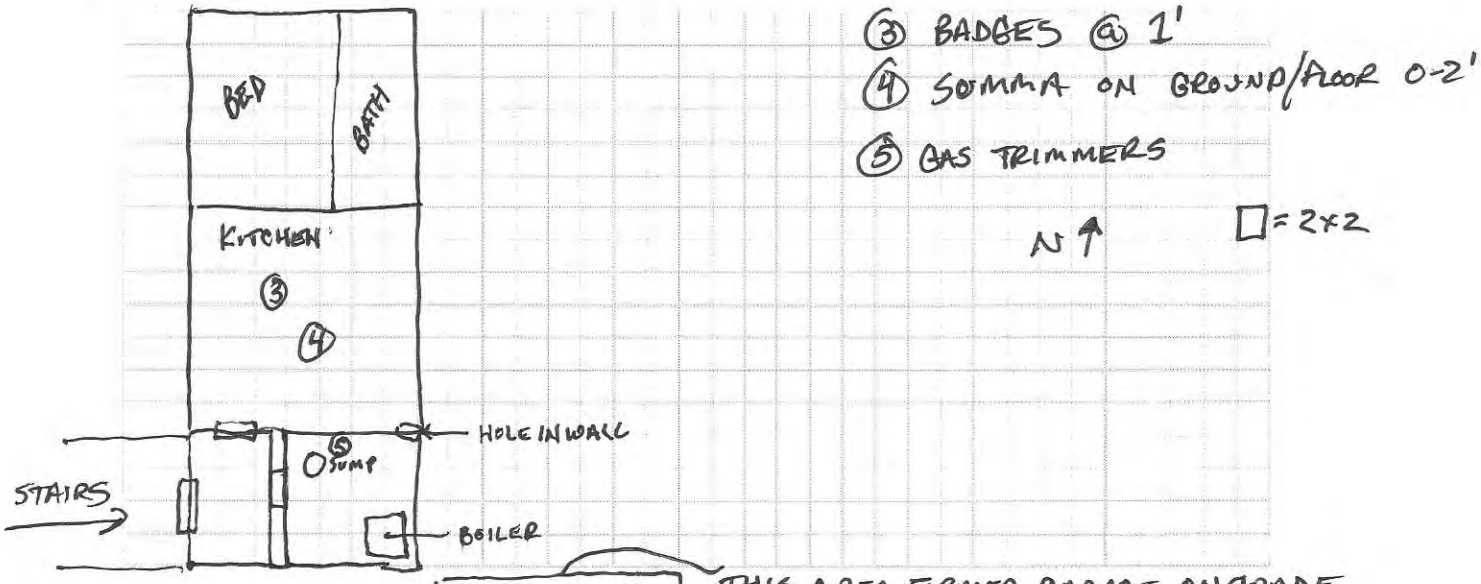
Water supply: (Public water) Drilled well Driven well Dug well Other _____

Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other _____

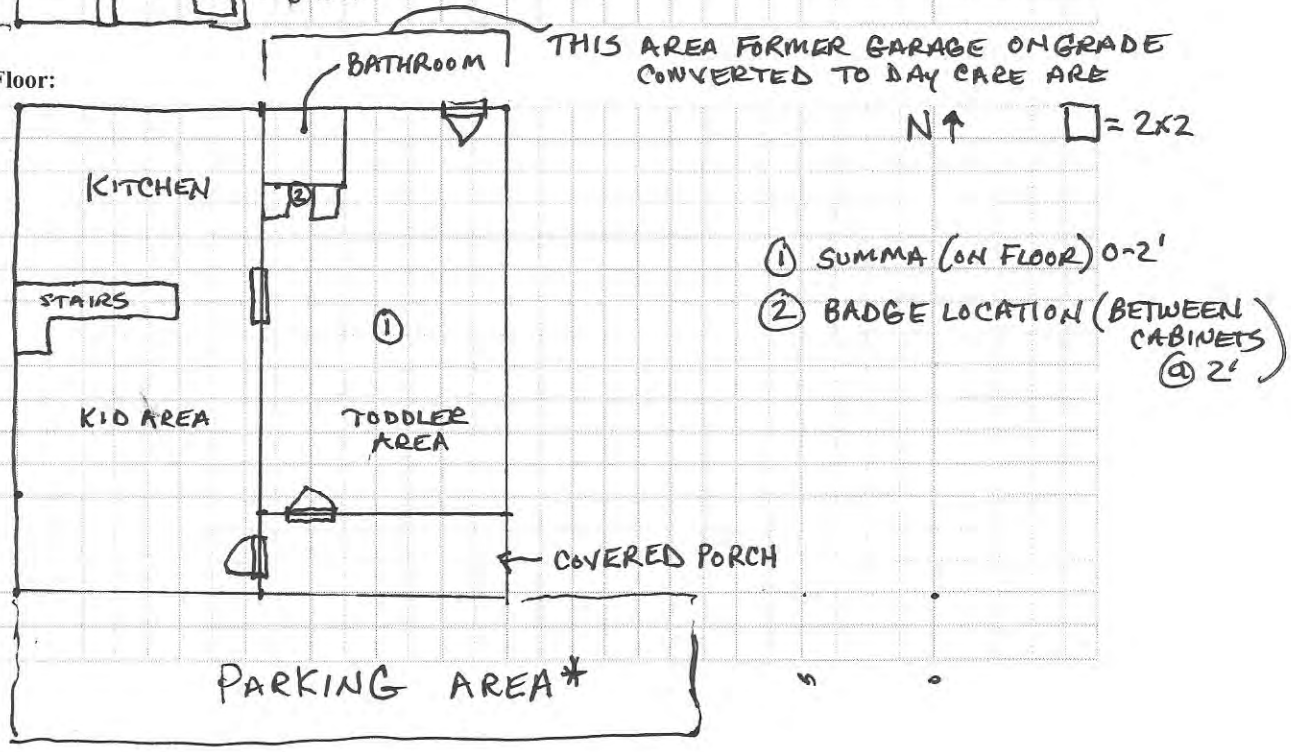
9. FLOOR PLANS

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 that.

Basement:



First Floor:

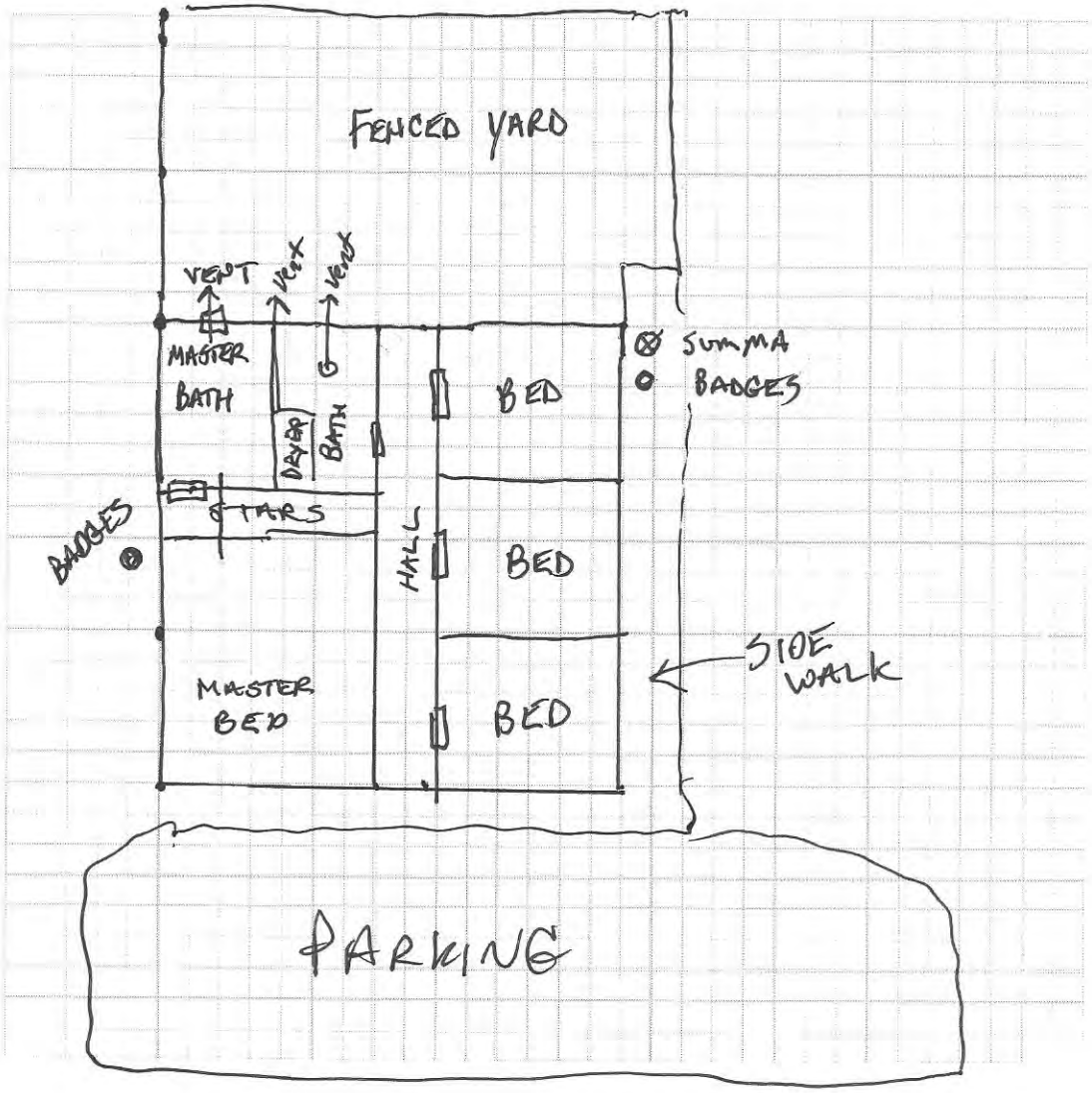


* CARS LEFT IDLING DURING PICK UP & DROP OFF
POSSIBLE EXAUST ENTRY INTO FRONT DOORS

10. OUTDOOR PLOT

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

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



SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? (Y) N HAS BEEN CONVERTED TO FINISHED INFANT DAY CARE AREA

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

Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, ATV, or car) Y (N) NA

Please specify_____

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

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

Is there a workshop or hobby/craft area? Y (N) Where and type_____

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

Has painting/staining been done in the last six months? (Y) / N Where and when? PAINT MASTER BED

Is there new carpet, drapes or other textiles? (Y) / N Where and when? FLOORING MASTER BED

Is there a kitchen exhaust fan? (Y) / N If yes, where is it vented? Recycler w/ filters

Is there a bathroom exhaust fan? (2) (Y) / N If yes, where is it vented? OUTSIDE

Is there a clothes dryer? (1) (Y) / N If yes, is it vented outside? (Y) N

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? (Y) / N

If yes, please describe In the bathrooms, some in basement Appartment

Do any of the building occupants use solvents at work? Y (N)

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used? Baby wipes / cleaners

If yes, are his/her/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) (No)

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services NO

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used: _____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N
(KITCHEN) BASEMENT	BLADE "CLEAN LINEN AIR FRESH"		OPEN		N/A	N
Removed TO OUTSIDE "	2 cycle oil	2 oz	open		"	Y
"	STP BRAKE FLUID	10 oz	OPEN		"	Y
"	NAPA STARTING FLUID	11oz	OPEN		"	Y
"	CITRUS ALL Cleaner	Gallon	OPEN/DRY		"	Y
ARTIC ENTRY BASEMENT	ZEP HARDWOOD CLEANER	"	OPEN		"	Y
BOILER ROOM BASEMENT	2 gas trimmers	½ gallon (FULL)			NOTICEABLE FUEL ODOR	Y

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**.

[2] 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.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 1023 1315

Preparer's Affiliation ERG Phone No. 510 671 2088

Purpose of Investigation Soil Vapor Inv.

SECTION I: BUILDING INVENTORY

1. **OCCUPANT OR BUILDING PERSONNEL:**

Interviewed: Y /(N)

Last Name _____ First Name [redacted]

Address 625 Noyes Street

City Fairbanks

Phone No. _____

Number of Occupants/people at this location 5-6? Age of Occupants 2 Adults w/ 4 children ~30's toddler to teenager

2. **OWNER or LANDLORD:** (Check if same as occupant ____.)

Interviewed: Y /(N)

Last Name Ellis First Name Rick

Address 620 Noyes Street

City Fairbanks

Phone No. 907-378-7748

3. **BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response.)

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

625
Noyes

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
(Duplex)	Apartment House	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many?_____

If the property is commercial, what type?

Business types(s)_____

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

Other characteristics:

Number of floors 2 Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y / N

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

6 25 Noyes

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

a. Above-grade construction:	(wood frame)	log	concrete	brick
	constructed on pilings with enclosed air space		constructed on pilings with open air space	
b. Basement type:	(full)	crawlspace	slab-on-grade	other_____
c. Basement floor:	(concrete)?	dirt	stone	other [redacted]
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other_____
f. Foundation walls:	unsealed	sealed	sealed with_____	
g. The basement is:	wet	damp	(dry)	
h. The basement is:	finished	unfinished	(partially finished)	
i. Sump present?	Y / (N)			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade ~8 (feet).

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

_____

_____

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: Basement Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? Y / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? Y / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

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

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	laundry / storage
1st Floor	living room / kitchen
2nd Floor	Bedrooms
3rd Floor	

8. **WATER AND SEWAGE**

Water supply: (Public water) Drilled well Driven well Dug well Other_____

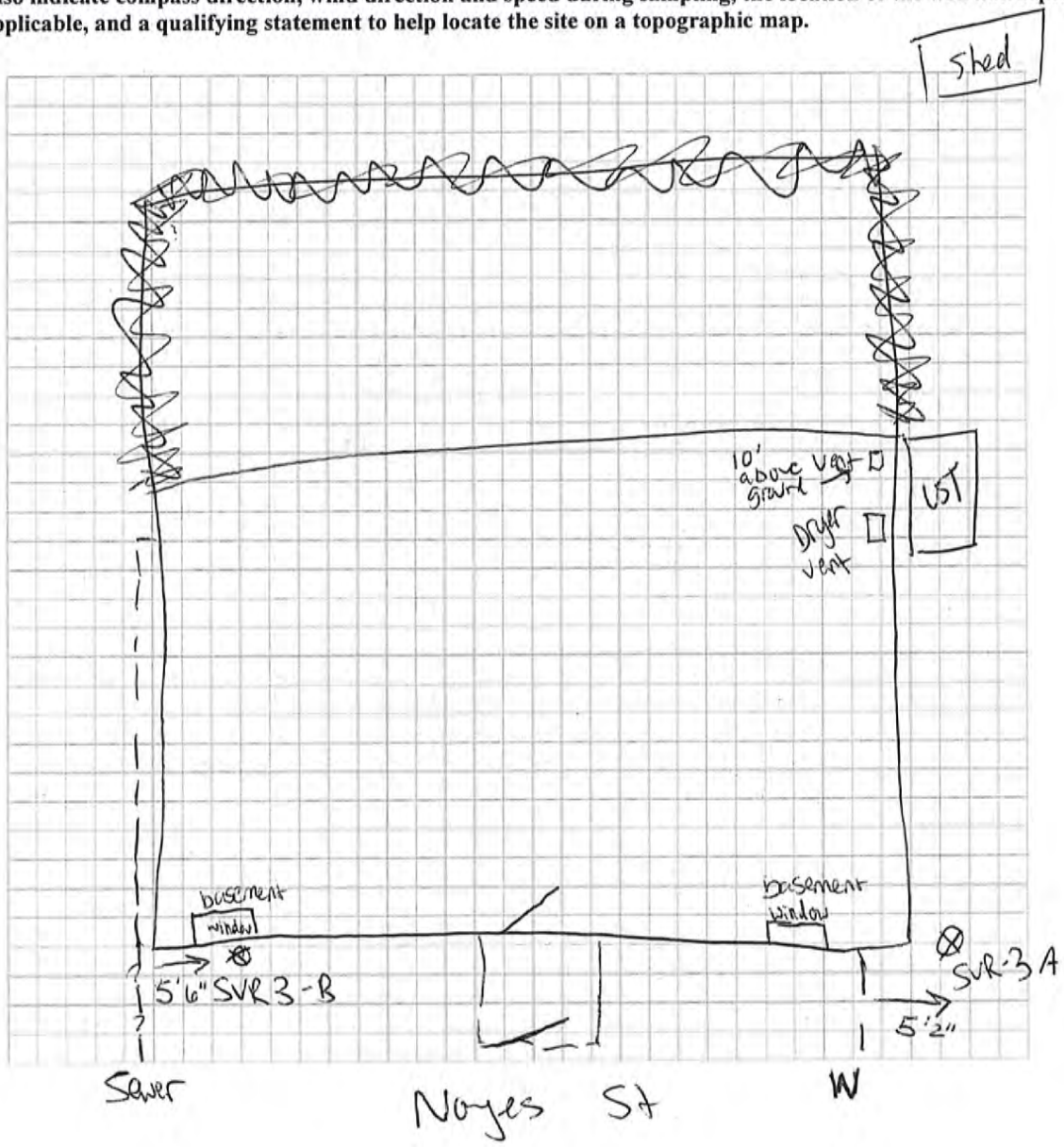
Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other_____

625
Noyes

10. OUTDOOR PLOT

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

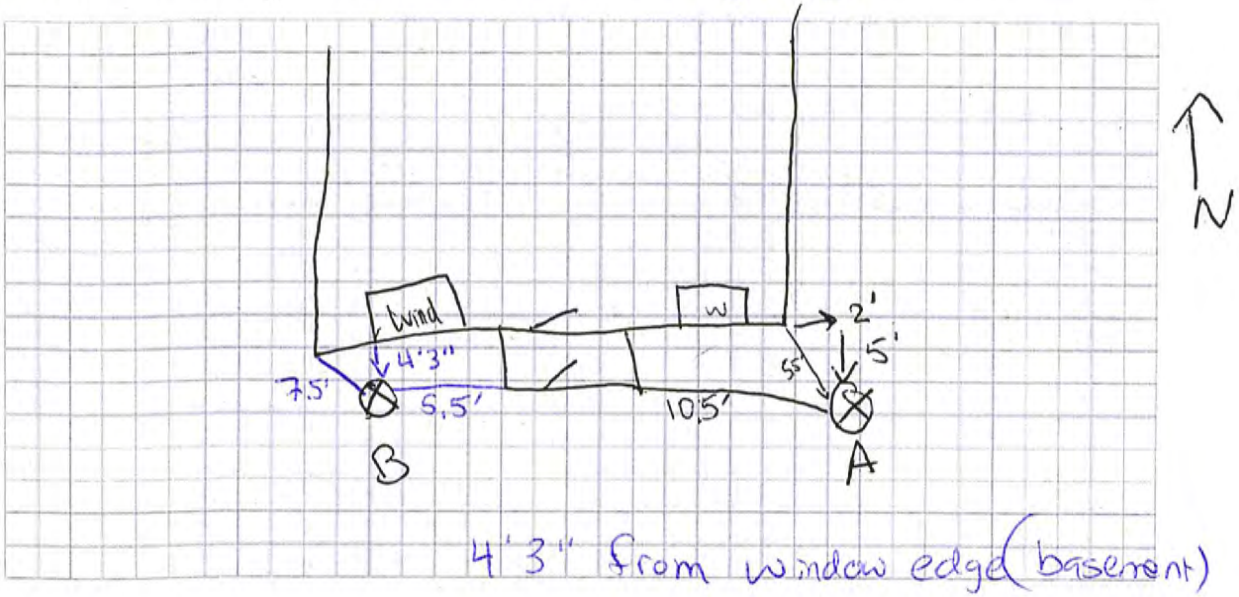
Also indicate compass direction, wind direction and speed during sampling, the location of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



9. 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 that.

~~Basement:~~ Sampling locations SV3'



4'3" from window edge (basement)

First Floor:

625 Noyes

SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? Y (N)

Does the garage have a separate heating unit? Y / N / NA

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

Please specify_____

Has the building ever had a fire? Y / N When?_____

Is a kerosene or unvented gas space heater present? Y / N Where?_____

Is there a workshop or hobby/craft area? Y / N Where and type_____

Is there smoking in the building? Y / N How frequently?_____

Has painting/staining been done in the last six months? Y / N Where and when?_____

Is there new carpet, drapes or other textiles? Y / N Where and when?_____

Is there a kitchen exhaust fan? Y / N If yes, where is it vented?_____

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

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

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:
ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 3-24-16 1200

Preparer's Affiliation ERG Phone No. 510 671 2088

Purpose of Investigation Sol Gas Inv

SECTION I: BUILDING INVENTORY

1. **OCCUPANT OR BUILDING PERSONNEL:**

Interviewed: (Y) / N

Last Name Dennis First Name Mikayla J.

Address 311 Noyes

City Fairbanks

Phone No. 907-451-6454

Number of Occupants/people at this location 4 Age of Occupants mid 20's to 60's

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

Interviewed: (Y) / N

Last Name First Name

Address

City

Phone No.

3. **BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response.)

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

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

(Ranch)	2-Family	(3-Family)
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many? 3

If the property is commercial, what type?

Business types(s)_____

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

Other characteristics:

Number of floors 1 Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y (N)

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

a. Above-grade construction:	(wood frame)	log	concrete	(brick)
	constructed on pilings with enclosed air space		constructed on pilings with open air space	
b. Basement type:	(full)	crawlspace	slab-on-grade	other_____
c. Basement floor:	(concrete)	dirt	stone	other_____
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other_____
f. Foundation walls:	unsealed	sealed	sealed with_____	
g. The basement is:	wet	damp	(dry)	
h. The basement is:	(finished)	unfinished	partially finished	
i. Sump present?	Y / (N)			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade 8 (feet).

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

Water/Sewer entry

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: (Basement) Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? Y / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? Y / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

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

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	2 units w/ bedrooms + bathrooms
1st Floor	Living room, kitchen, bedrooms
2nd Floor	
3rd Floor	

8. **WATER AND SEWAGE**

Water supply: (Public water) Drilled well Driven well Dug well Other_____

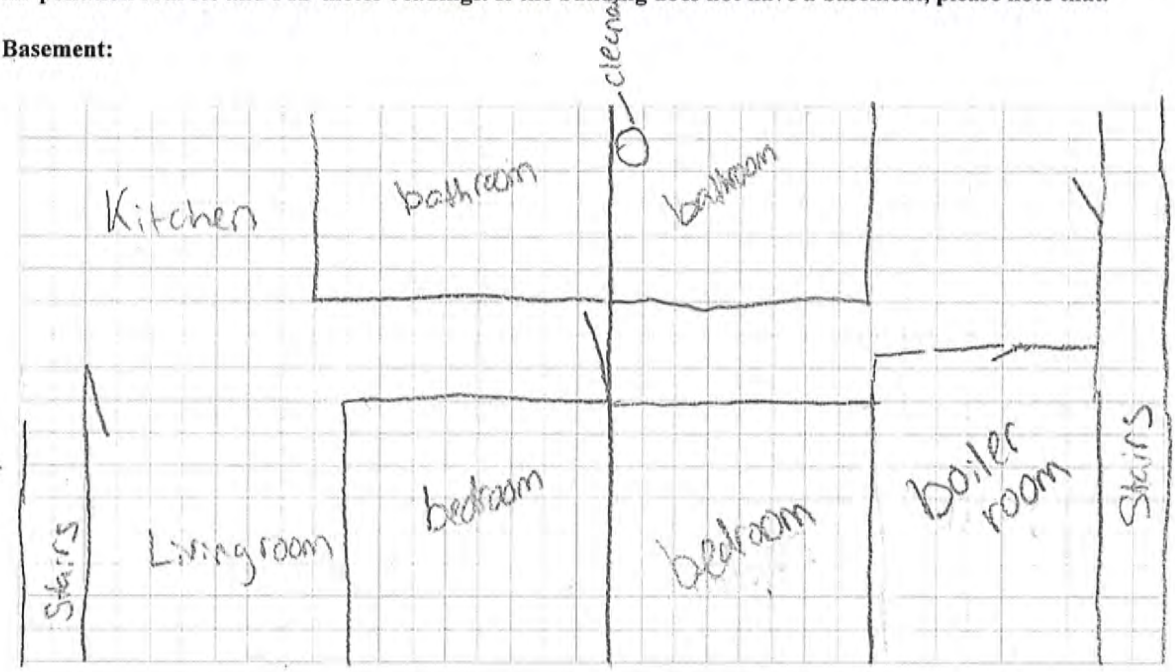
Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other_____

311
Noyes

9. 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 that.

Basement:

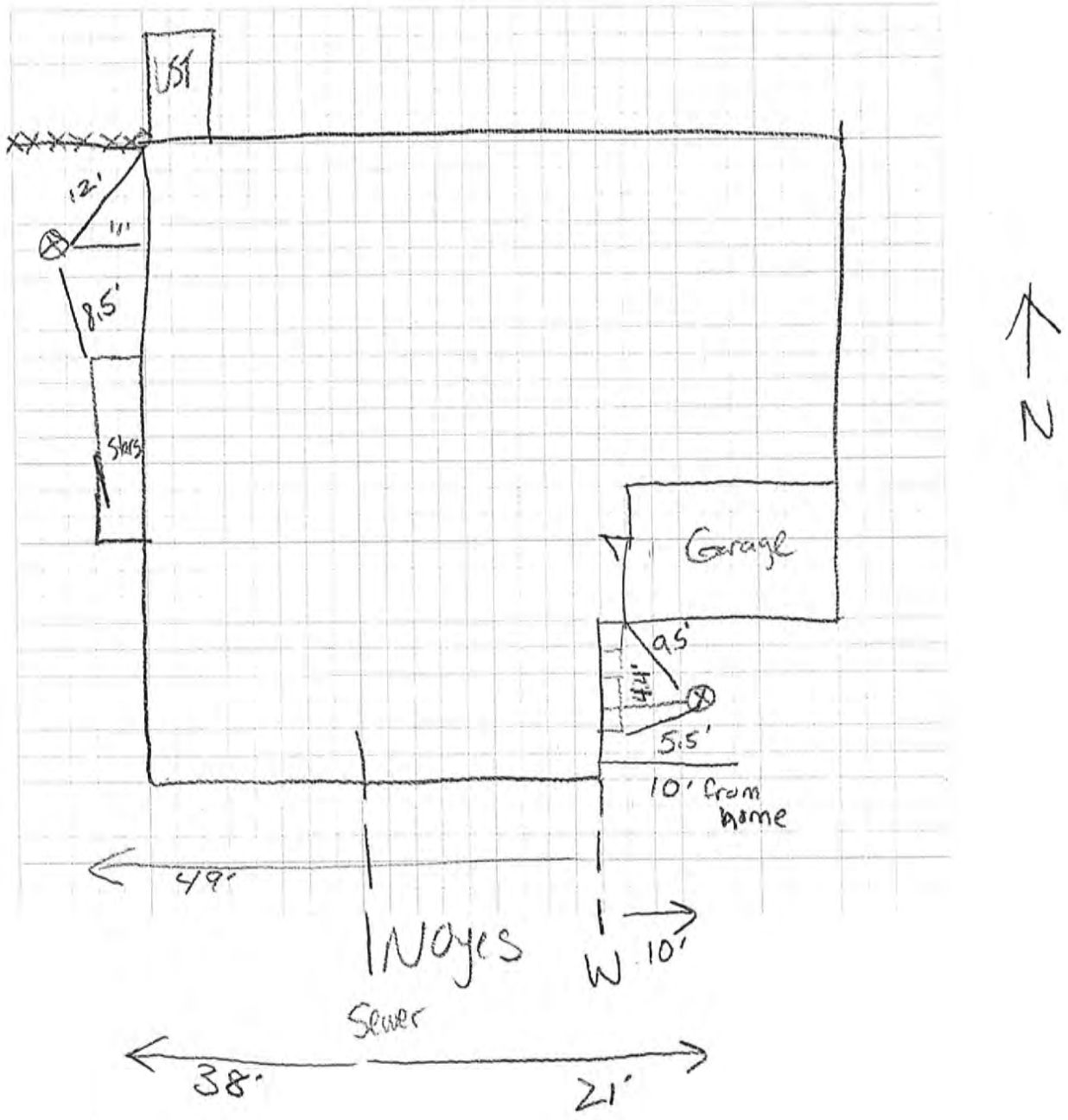


First Floor:

10. OUTDOOR PLOT

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

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



SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? (Y) N

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

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

Please specify_____

Has the building ever had a fire? Y / N When?_____

Is a kerosene or unvented gas space heater present? Y / N Where?_____

Is there a workshop or hobby/craft area? Y / N Where and type_____

Is there smoking in the building? Y / N How frequently?_____

Has painting/staining been done in the last six months? Y / N Where and when?_____

Is there new carpet, drapes or other textiles? Y / (N) Where and when?_____

Is there a kitchen exhaust fan? Y / N If yes, where is it vented?_____

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

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

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:
ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 3-24-16 1200

Preparer's Affiliation ERG Phone No. 510 671 2088

Purpose of Investigation Soil Gas Investigation

SECTION I: BUILDING INVENTORY

1. **OCCUPANT OR BUILDING PERSONNEL:**

Interviewed: Y / N

Last Name Kelly First Name Janet

Address 236 INA ST

City Fairbanks

Phone No. 907-374-0789

Number of Occupants/people at this location 4 Age of Occupants teen to >50

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

Interviewed: Y / N

Last Name First Name

Address

City

Phone No.

3. **BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response.)

(Residential) School Commercial/Multi-use

Industrial Church Other

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other Multiple Units

If multiple units, how many? 2

If the property is commercial, what type?

Business types(s)_____

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

Other characteristics:

Number of floors 1 Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y / N

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

a. Above-grade construction:	(wood frame)	log	concrete	brick
	constructed on pilings with enclosed air space		constructed on pilings with open air space	
b. Basement type:	(full)	crawlspace	slab-on-grade	other_____
c. Basement floor:	(concrete)	dirt	stone	other _____
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other _____
f. Foundation walls:	unsealed	sealed	sealed with _____	
g. The basement is:	wet	damp	(dry)	
h. The basement is:	(finished)	unfinished	partially finished	
i. Sump present?	Y / (N)			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade 8 (feet).

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

Water / sewer entry

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: (Basement) Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? (Y) / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

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

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

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

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	Bedrooms, kitchen, bathroom
1st Floor	" living room
2nd Floor	
3rd Floor	

8. **WATER AND SEWAGE**

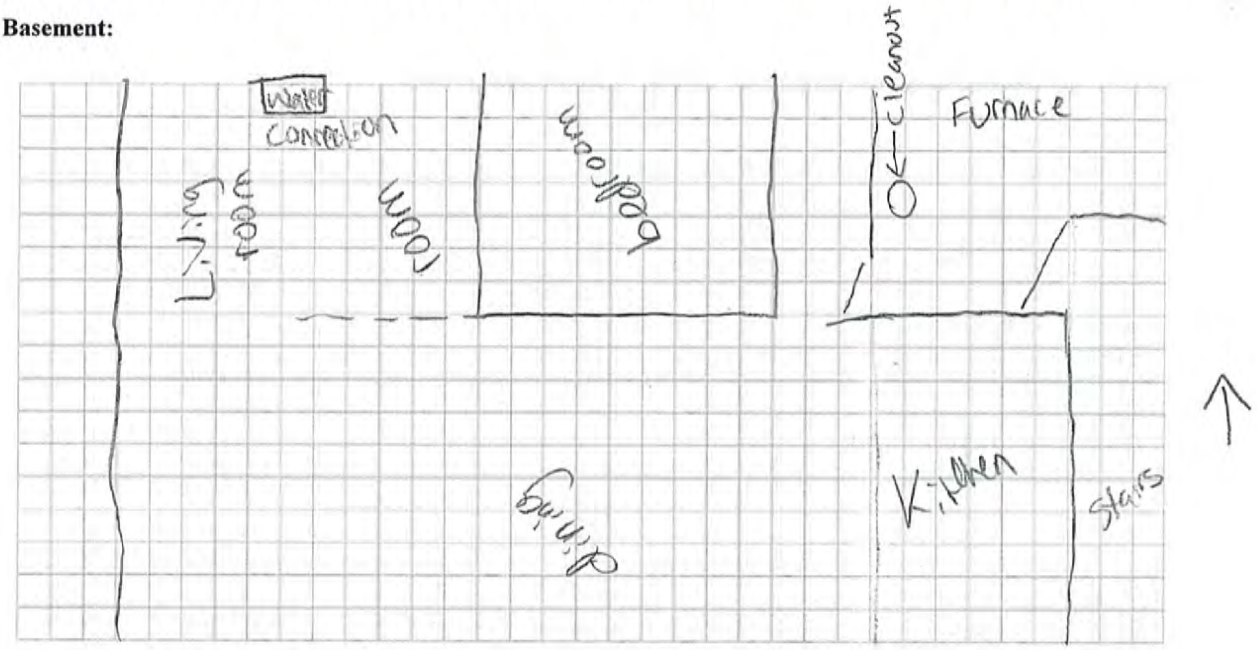
Water supply: (Public water) Drilled well Driven well Dug well Other_____

Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other_____

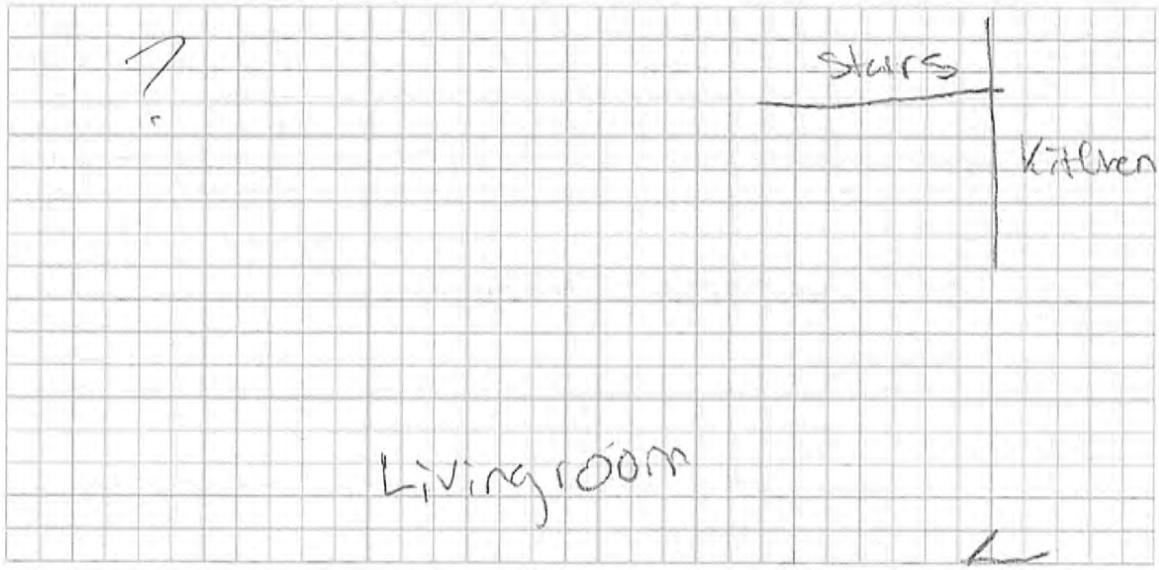
9. FLOOR PLANS

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 that.

Basement:



First Floor:

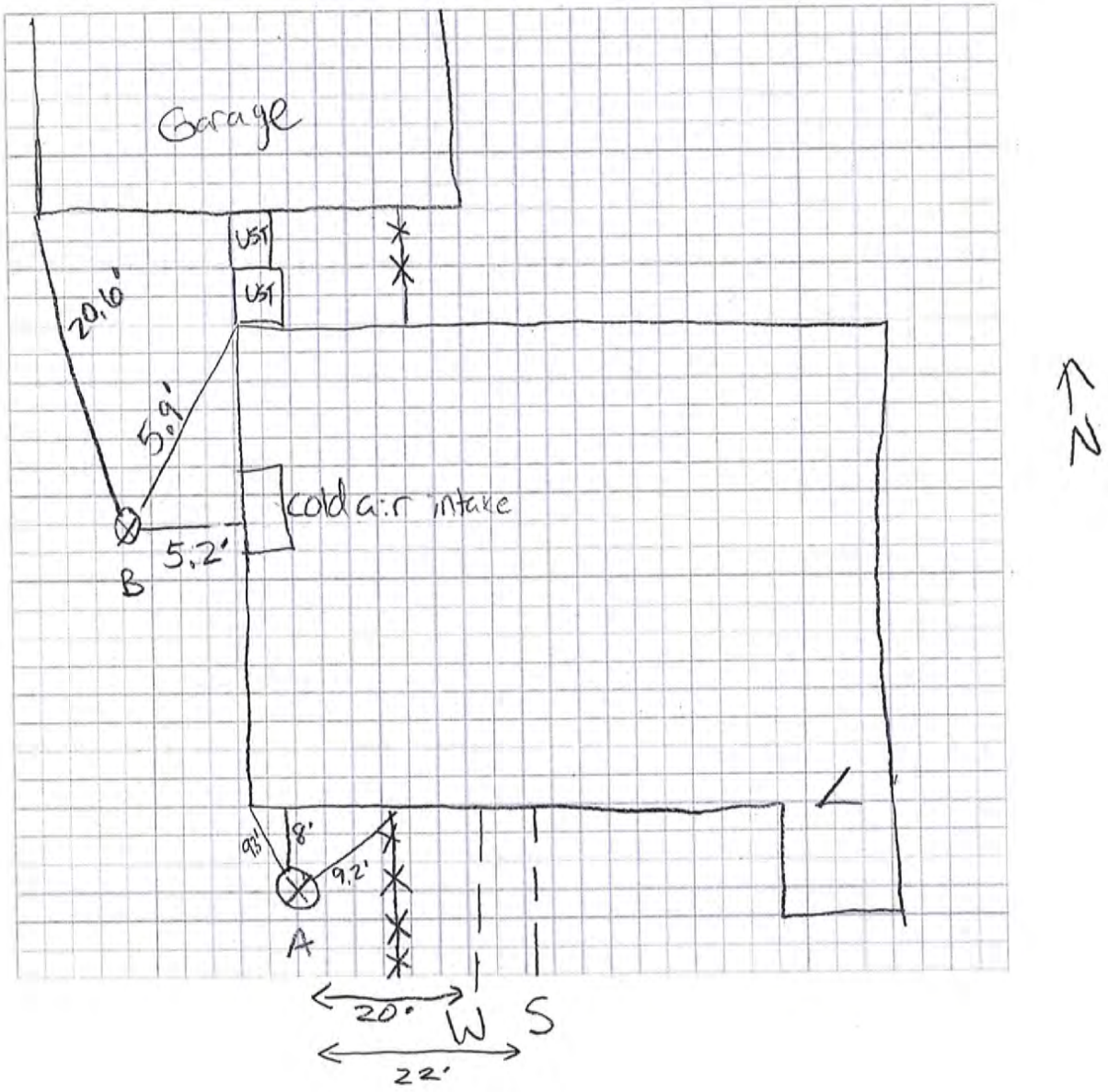


236 INA ST

10. OUTDOOR PLOT

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

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



INA St

SUR 6

SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage?	Y / (N)	
Does the garage have a separate heating unit?	(Y) / N / NA	
Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, ATV, or car)	(Y) / N / NA	Please specify Car
Has the building ever had a fire?	Y / N	When?_____
Is a kerosene or unvented gas space heater present?	Y / (N)	Where?_____
Is there a workshop or hobby/craft area?	Y / N	Where and type_____
Is there smoking in the building?	(Y) / N	How frequently? Daily
Has painting/staining been done in the last six months?	Y / N	Where and when?_____
Is there new carpet, drapes or other textiles?	Y / N	Where and when?_____
Is there a kitchen exhaust fan?	Y / N	If yes, where is it vented?_____
Is there a bathroom exhaust fan?	Y / N	If yes, where is it vented?_____
Is there a clothes dryer?	(Y) / N	If yes, is it vented outside? (Y) / N

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 3/23/16 1015

Preparer's Affiliation ERG Phone No. 510 671 2088

Purpose of Investigation Soil gas invest

SECTION I: BUILDING INVENTORY

1. **OCCUPANT OR BUILDING PERSONNEL:**

Interviewed: Y / (N)

Last Name Young First Name Sally

Address 208 Charles Street

City Fairbanks

Phone No. 907-322-9244

Number of Occupants/people at this location 2 Age of Occupants >50

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

Interviewed: Y / (N)

Last Name First Name

Address

City

Phone No.

3. **BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response.)

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

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many?_____

If the property is commercial, what type?

Business types(s)_____

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

Other characteristics:

Number of floors_____ Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y / N

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

2 08 Charles

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

a. Above-grade construction:	(wood frame)	log	concrete	brick
		constructed on pilings with enclosed air space	constructed on pilings with open air space	
b. Basement type:	(full)	crawlspace	slab-on-grade	other_____
c. Basement floor:	(concrete)	dirt	stone	other_____
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other_____
f. Foundation walls:	unsealed	sealed	sealed with_____	
g. The basement is:	wet	damp	dry	
h. The basement is:	(finished)	unfinished	partially finished	
i. Sump present?	Y / (N)			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade ~8 (feet).

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

Sewer / water ports into basement

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: Basement Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? (Y) N ? Maybe

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

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

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

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

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	
1st Floor	Living room / bedroom / kitchen
2nd Floor	
3rd Floor	

8. **WATER AND SEWAGE**

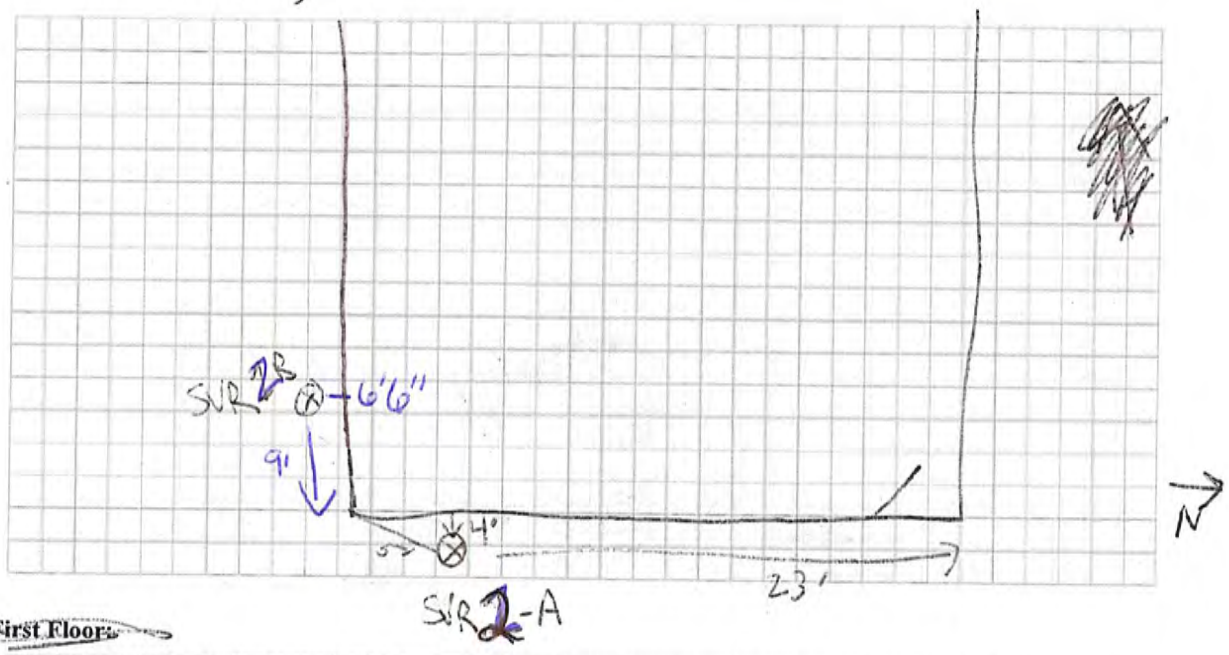
Water supply: (Public water) Drilled well Driven well Dug well Other_____

Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other_____

9. 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 that.

~~Basement:~~ Sampling locations



~~First Floor:~~

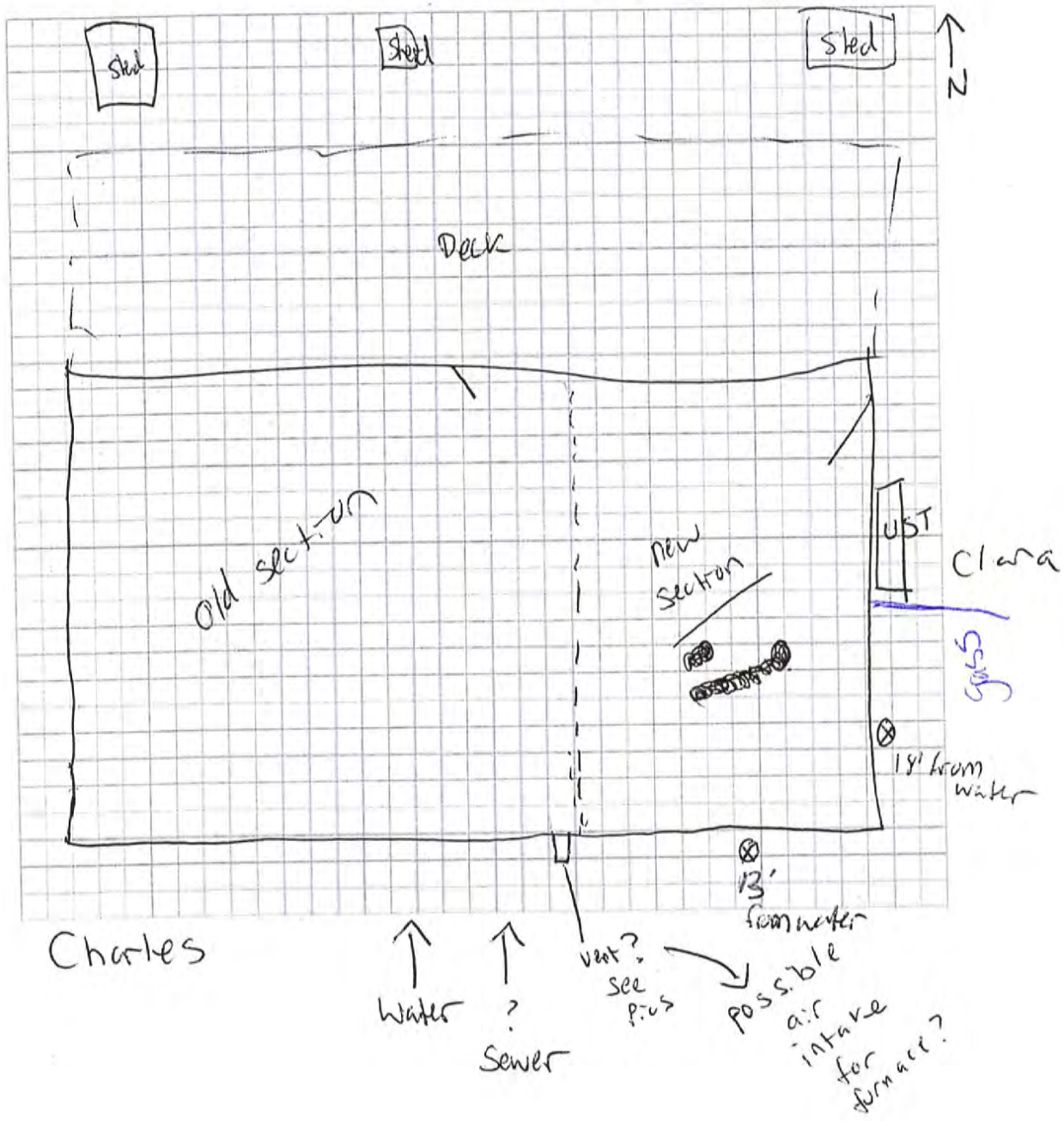
~~208 Charles~~

208 Charles

10. OUTDOOR PLOT

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

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



208
Charles

SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? Y / (N)

Does the garage have a separate heating unit? Y / N / NA

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

Please specify_____

Has the building ever had a fire? Y / N When?_____

Is a kerosene or unvented gas space heater present? Y / N Where?_____

Is there a workshop or hobby/craft area? Y / N Where and type_____

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

Has painting/staining been done in the last six months? Y / N Where and when?_____

Is there new carpet, drapes or other textiles? Y / N Where and when?_____

Is there a kitchen exhaust fan? Y / N If yes, where is it vented?_____

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

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

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:
ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 3-24-16 1100

Preparer's Affiliation ERG Phone No. 510 671 2088

Purpose of Investigation Soil gas investigation

SECTION I: BUILDING INVENTORY

1. OCCUPANT OR BUILDING PERSONNEL:

Interviewed: Y (N)

Last Name Mercier First Name Scott

Address 106 Charles Street

City Fairbanks

Phone No.

Number of Occupants/people at this location 3-4? Age of Occupants 2 adults ~30's, teenager, baby

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

Interviewed: Y / N

Last Name First Name

Address

City

Phone No.

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response.)

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

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many?_____

If the property is commercial, what type?

Business types(s)_____

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

Other characteristics:

Number of floors_____ Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y / N

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

106

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

a. Above-grade construction: (wood frame) log concrete brick
constructed on pilings with enclosed air space
constructed on pilings with open air space

b. Basement type: (full) crawlspace slab-on-grade other_____

c. Basement floor: (concrete) dirt stone other _____

d. Basement floor: unsealed sealed sealed with_____

e. Foundation walls: poured block stone other _____

f. Foundation walls: unsealed sealed sealed with _____

g. The basement is: wet damp (dry)

h. The basement is: finished unfinished partially finished

i. Sump present? (Y / N)

j. Water in sump? Y / N / not applicable

Basement or lowest level depth below grade 8 (feet).

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

Sewer and water entry

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: Basement Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? Y / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? Y / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

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

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	
1st Floor	
2nd Floor	
3rd Floor	

8. **WATER AND SEWAGE**

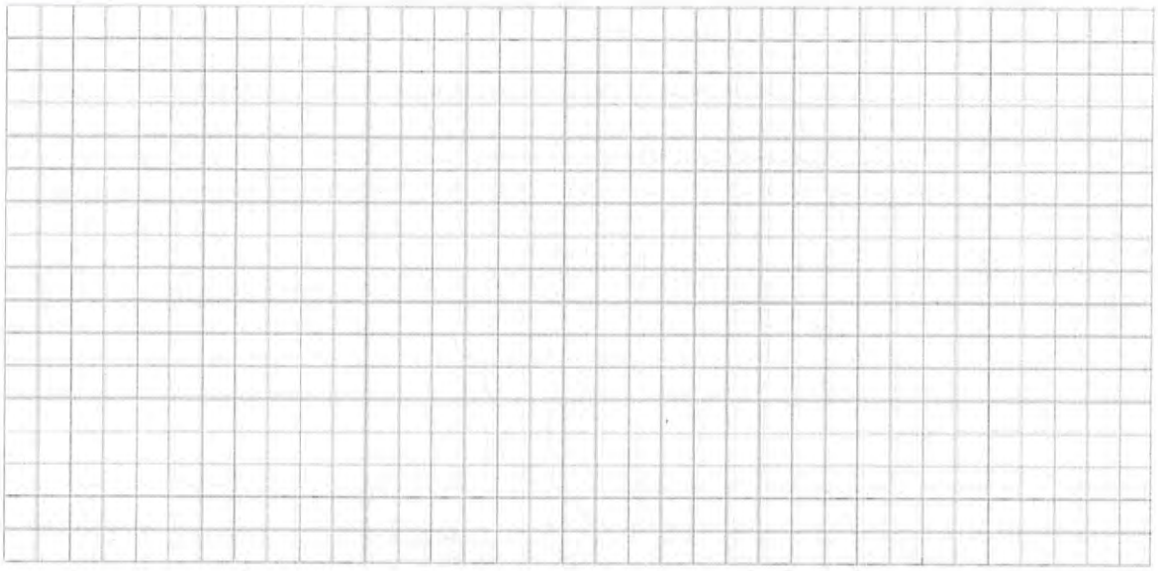
Water supply: (Public water) Drilled well Driven well Dug well Other_____

Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other_____

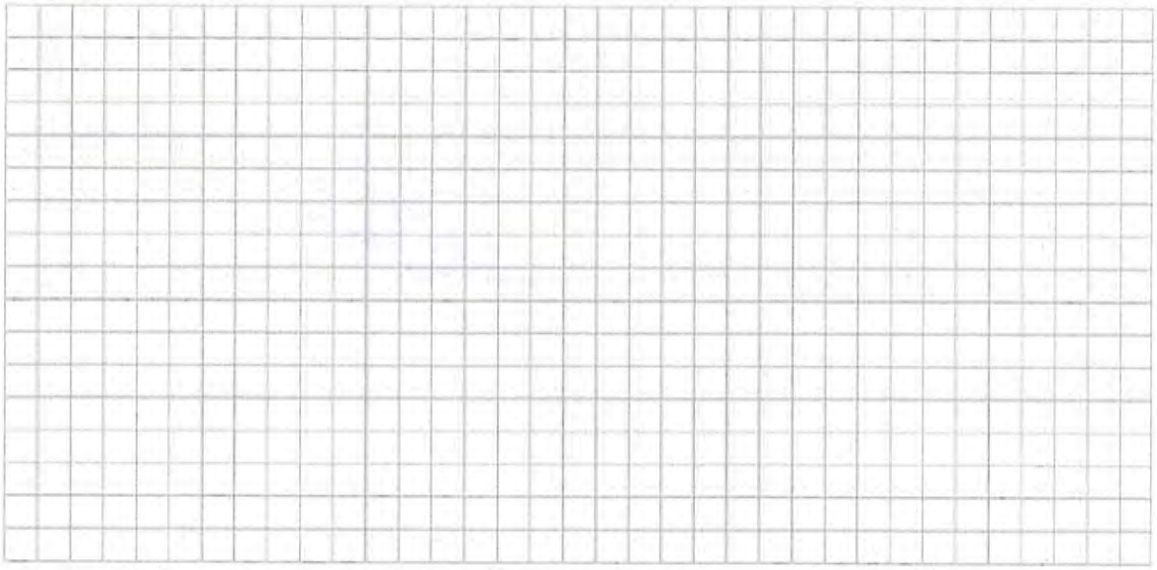
9. FLOOR PLANS

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 that.

Basement:



First Floor:

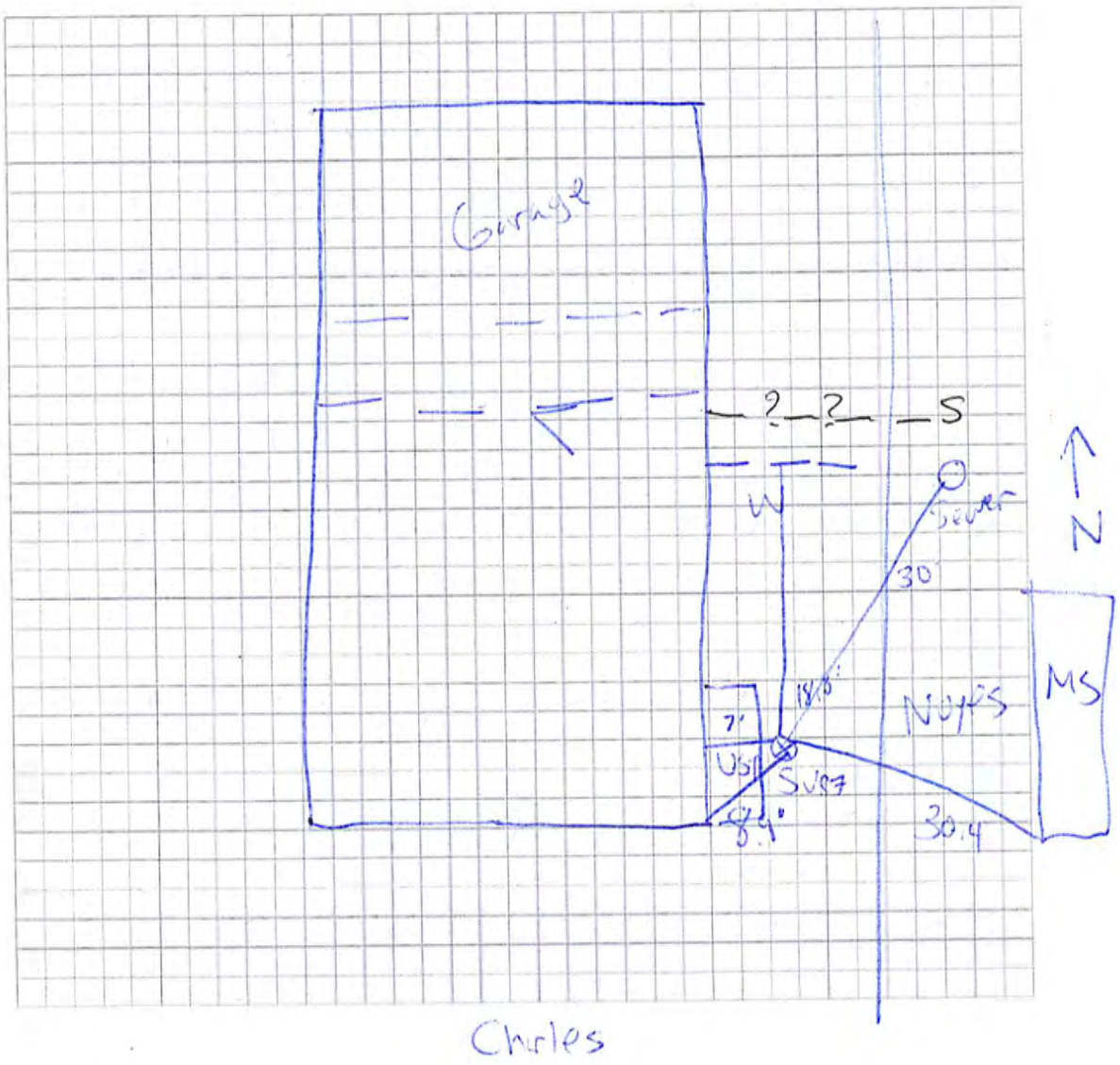


10 Charles

10. OUTDOOR PLOT

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

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



SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? (Y) / N

Does the garage have a separate heating unit? Y / N / NA

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

Please specify_____

Has the building ever had a fire? Y / N When?_____

Is a kerosene or unvented gas space heater present? Y / N Where?_____

Is there a workshop or hobby/craft area? Y / N Where and type_____

Is there smoking in the building? Y / N How frequently?_____

Has painting/staining been done in the last six months? Y / N Where and when?_____

Is there new carpet, drapes or other textiles? Y / N Where and when?_____

Is there a kitchen exhaust fan? Y / N If yes, where is it vented?_____

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

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

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:
ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 3/24/16 1000

Preparer's Affiliation ERG Phone No. 510 671 2088

Purpose of Investigation Soil gas investigation

SECTION I: BUILDING INVENTORY

1. **OCCUPANT OR BUILDING PERSONNEL:**

Interviewed: Y (N)

Last Name O'Grady First Name Pearl

Address 201 Ellingson

City Fairbanks

Phone No. N/A

Number of Occupants/people at this location 2 Age of Occupants >70

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

Interviewed: Y / N

Last Name First Name

Address

City

Phone No.

3. **BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response.)

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

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many?_____

If the property is commercial, what type?

Business types(s)_____

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

Other characteristics:

Number of floors 2 Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y / N

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

a. Above-grade construction:	wood frame	log	concrete	brick
	constructed on pilings with enclosed air space		constructed on pilings with open air space	
b. Basement type:	full	crawlspace	slab-on-grade	other_____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other _____
f. Foundation walls:	unsealed	sealed	sealed with _____	
g. The basement is:	wet	damp	dry	
h. The basement is:	finished	unfinished	partially finished	
i. Sump present?	Y / N			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade 8 (feet).

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

Water/sewer entry

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: Basement Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? Y / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? Y / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost never

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	
1st Floor	
2nd Floor	
3rd Floor	

8. **WATER AND SEWAGE**

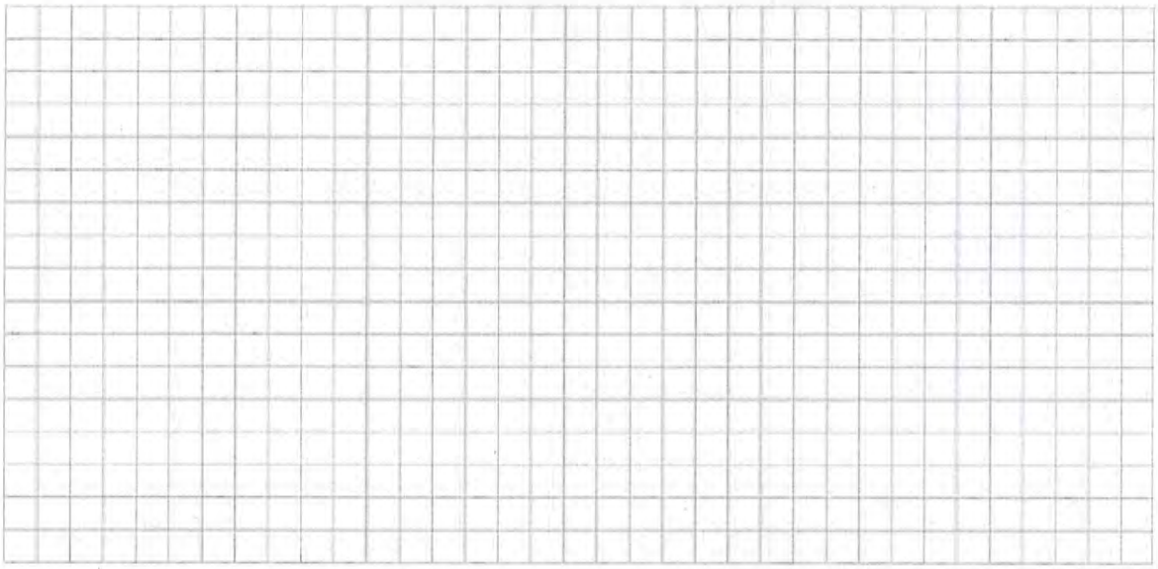
Water supply: Public water Drilled well Driven well Dug well Other_____

Sewage disposal: Public sewer Septic tank Leach field Dry well Other_____

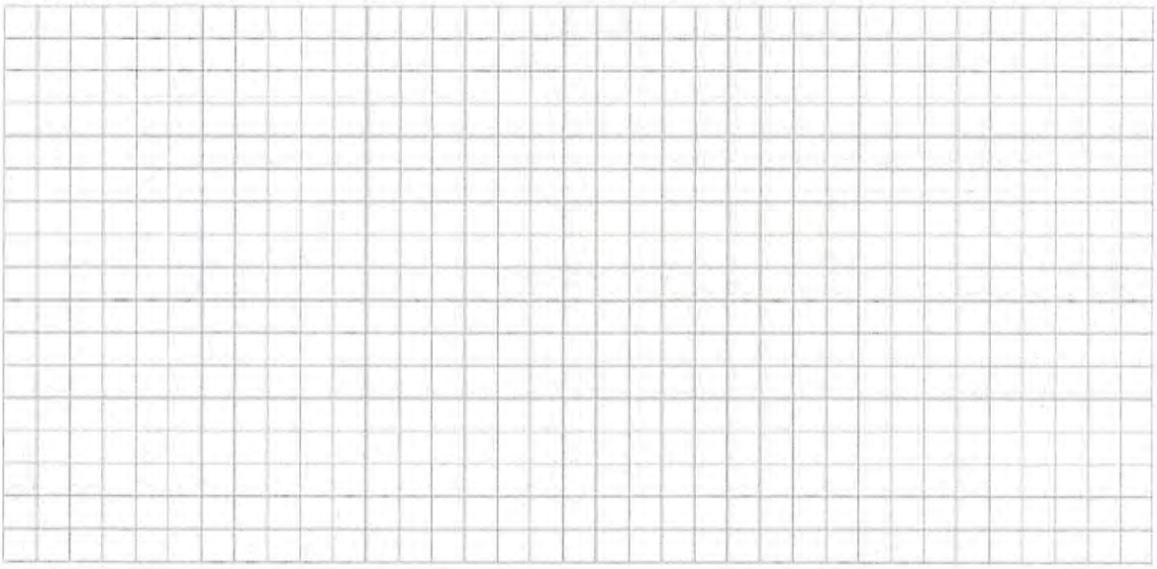
9. FLOOR PLANS

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 that.

Basement:



First Floor:

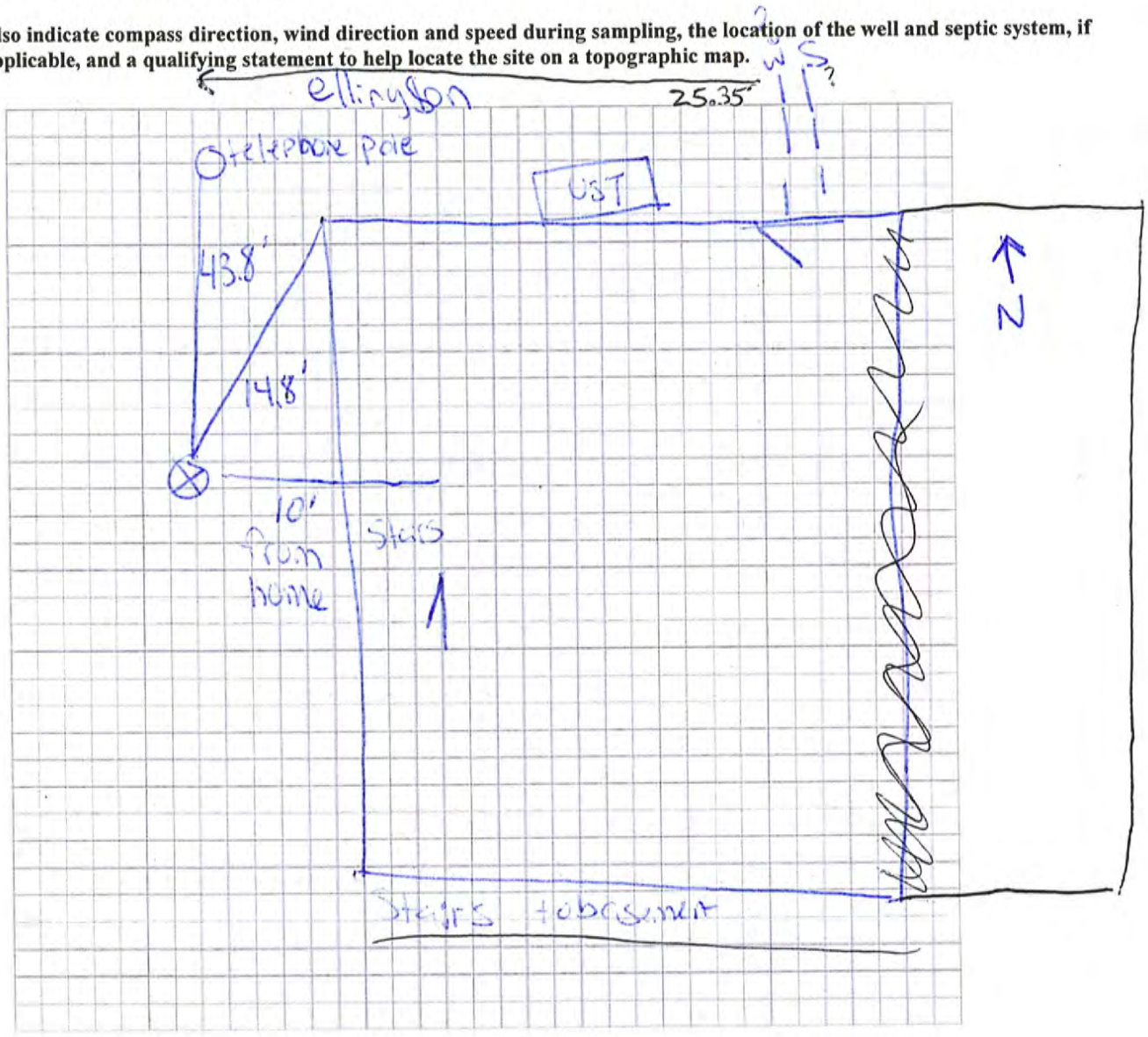


201 Ellingson

10. OUTDOOR PLOT

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

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



SVR-5

SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? Y / (N)

Does the garage have a separate heating unit? Y / N / NA

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

Please specify_____

Has the building ever had a fire? Y / N When?_____

Is a kerosene or unvented gas space heater present? Y / N Where?_____

Is there a workshop or hobby/craft area? Y / N Where and type_____

Is there smoking in the building? Y / N How frequently?_____

Has painting/staining been done in the last six months? Y / N Where and when?_____

Is there new carpet, drapes or other textiles? Y / N Where and when?_____

Is there a kitchen exhaust fan? Y / N If yes, where is it vented?_____

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

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

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

ALASKA DEPARTMENT OF ENVIRONMENAL CONSERVATION
BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Yola Bayram Date/Time Prepared 3-24-16 1200

Preparer's Affiliation ERG Phone No. 5106712088

Purpose of Investigation Soil gas investigation

SECTION I: BUILDING INVENTORY

1. **OCCUPANT OR BUILDING PERSONNEL:**

Interviewed: Y / (N)

Last Name Barragan First Name Alejandra

Address 120 Ina Street

City Fairbanks

Phone No. 907 347 7960

Number of Occupants/people at this location Varies Age of Occupants 2 adults and various children < 5

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

Interviewed: Y / (N)

Last Name First Name

Address

City

Phone No.

3. **BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response.)

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

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

(Ranch)	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other_____

If multiple units, how many?_____

If the property is commercial, what type?

Business types(s) Daycare

Does it include residences (i.e., multi-use)? (Y) / N If yes, how many? 1

Other characteristics:

Number of floors 2 Building age_____

Is the building insulated? Y / N How airtight? Tight / Average / Not Tight

Have occupants noticed chemical odors in the building? Y / (N)

If yes, please describe:_____

_____

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow in building near suspected source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

120 209

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

a. Above-grade construction:	(wood frame)	log	concrete	brick
		constructed on pilings with enclosed air space	constructed on pilings with open air space	
b. Basement type:	(full)	crawlspace	slab-on-grade	other_____
c. Basement floor:	(concrete)	dirt	stone	other_____
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other_____
f. Foundation walls:	unsealed	sealed	sealed with_____	
g. The basement is:	wet	damp	(dry)	
h. The basement is:	(finished)	unfinished	partially finished	
i. Sump present?	Y / (N)			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade 8 (feet).

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

Sewer/water connections

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

Type of heating system(s) used in this building: (Circle all that apply – not just 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 is fueled by:_____

Boiler/furnace is located in: Basement Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? Y / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? Y / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y / N Date of Installation_____

Is the system active or passive? Active/Passive

7. **OCCUPANCY**

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

Level	**General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).**
Basement	Storage
1st Floor	Daycare
2nd Floor	bedrooms
3rd Floor	

8. **WATER AND SEWAGE**

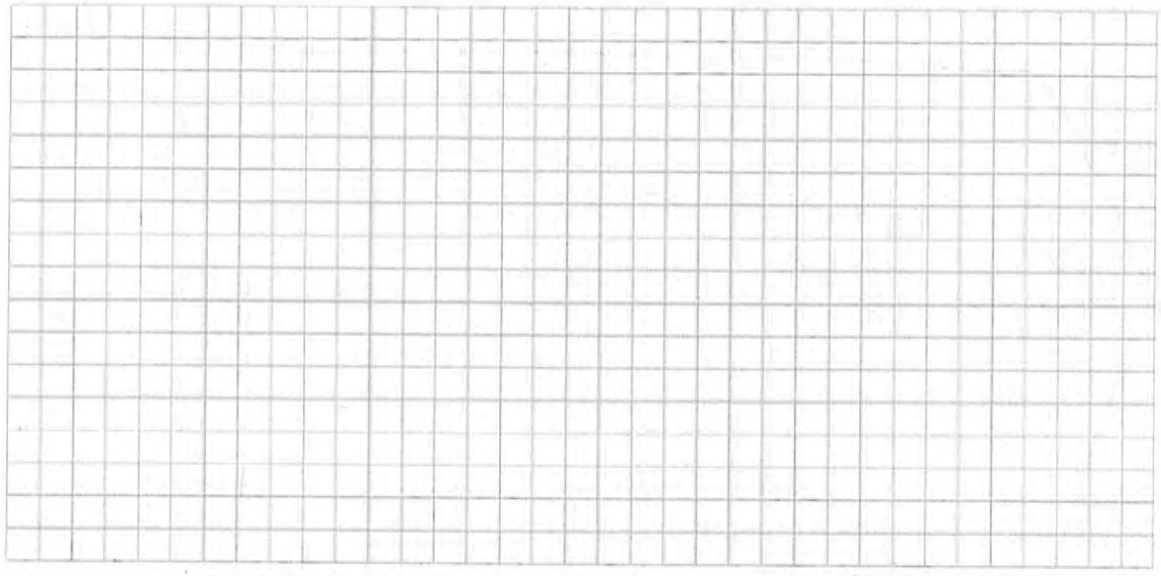
Water supply: (Public water) Drilled well Driven well Dug well Other_____

Sewage disposal: (Public sewer) Septic tank Leach field Dry well Other_____

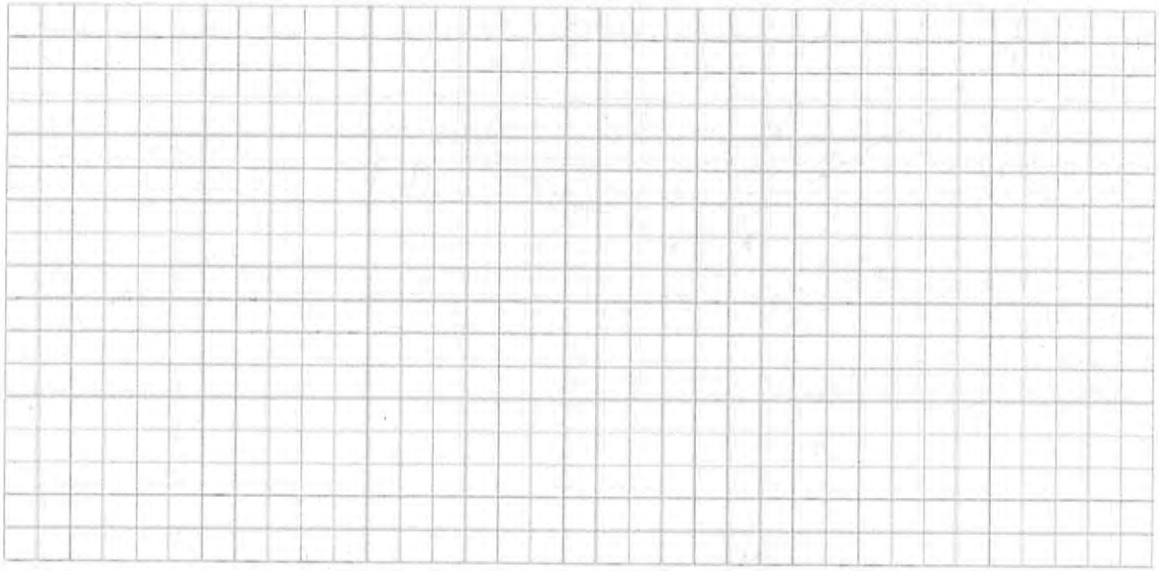
9. FLOOR PLANS

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 that.

Basement:



First Floor:

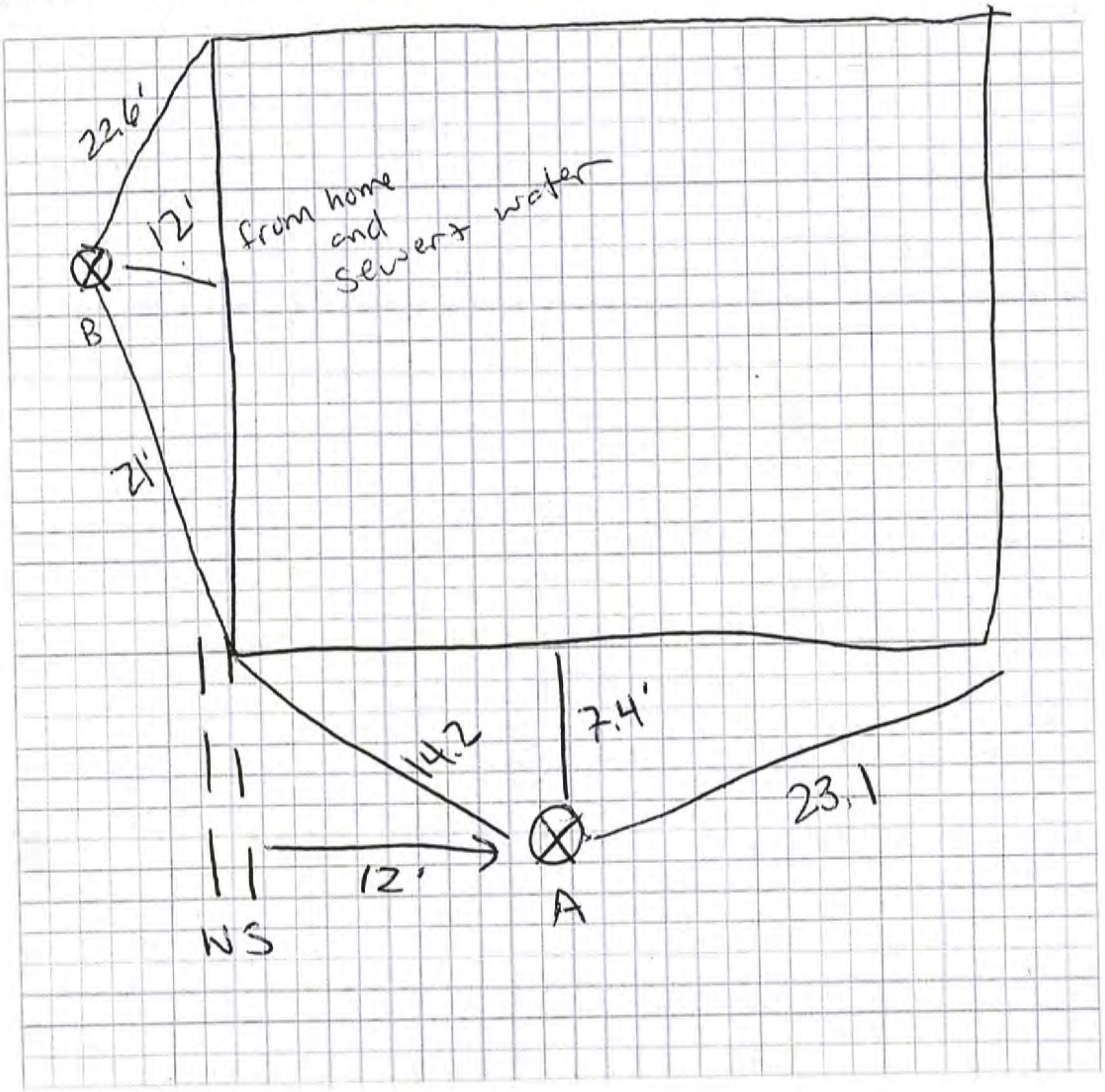


120
INA

10. OUTDOOR PLOT

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

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



INA

SVR-4

120 ; na

SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? Y (N)

Does the garage have a separate heating unit? Y / N / NA

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

Please specify_____

Has the building ever had a fire? Y / N When?_____

Is a kerosene or unvented gas space heater present? Y / N Where?_____

Is there a workshop or hobby/craft area? Y / N Where and type_____

Is there smoking in the building? Y / N How frequently?_____

Has painting/staining been done in the last six months? Y / N Where and when?_____

Is there new carpet, drapes or other textiles? Y / N Where and when?_____

Is there a kitchen exhaust fan? Y / N If yes, where is it vented?_____

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

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

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe_____

_____

_____

Do any of the building occupants use solvents at work? Y / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used?_____

If yes, are his/her/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) No

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used:_____

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

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] 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.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

APPENDIX B: FIELD SHEETS

SOIL GAS FIELD WORKSHEET

Project Name:	Bentley Mall	Date:	3/25/16
Location:	Charles Slater Subdivision	Client:	Krauz
Sampler:	[redacted]	Surface Inversion?	N
Sampler Signature:	[redacted]	Weather:	Sunny

		Sample ID			
		SV-15	SV-13 3414	SV-12	
Sample Canister ID		33723	~~2055~~	~~3057~~	A9796
Train ID#		20428	20308	[redacted]	FC00172
Case Volume (L)		0.18	0.168	0.168	
Initial PID Reading		0	0	0	
Shut-in Test	Time Start	1520	1554	1629	
	Time Finish	1521	1555	1630	
	Vacuum Start (in Hg)	26.5	25.5	24	
	Vacuum Finish (in Hg)	26.5	25.5	24	
Sample Purge	Time Start	1525	1600	1654	
	Time Finish	1528	1602	1657	
	Vacuum Start	~~30~~27	27	24.5	
	Vacuum Finish (in Hg)	25	25	22.5	
	Purge Rate (ml/min)	~193	~290	~193	
Sample Collection	Time Start	1529	1603	1712	
	Time Finish	1538	1612	1722	
	Vacuum Start (in Hg)	26.5	29	25	
	Vacuum Finish (in Hg)	0.5	2	2	
	Sample Rate (ml/min)	~100	~100	~80	
	PID Reading in Shroud	64.2	71.3	61.4	
	Barometric Pressure (in Hg)	29.01	29.01	29.02	
	Temperature (F)	56.2	56.2	55.7	

Tubing	Tube Diameter (inches)	0.17	0.25	0.5	0.75
	Volume (liters per foot)	0.004	0.010	0.039	0.087
Sand Pack volumes	Height of Sand Pack (inches)	12	Dry Bentonite Volume	Height of dry bent	12
	Radius of Sand Pack (inches)	0.63		Radius of dry bent	0.63
	Porosity of Sand	0.3		Porosity of bentonite	0.3
	Casing Volume of Sandpack (liters per foot)	0.07		Casing Volume of dry bentonite (liters per foot)	0.07

Notes: SV-13 Brick corner SW 26.6'
" NW 53.7' SV-14 between B Stall and C Stall
SV-12 Door entrance southcorner 16'9"
North corner 37'

SOIL GAS FIELD WORKSHEET

Project Name:	Bentley Mall	Date:	3-25-16
Location:	Charles Slater Subdivision	Client:	Krwz
Sampler:	Yola / Dustin	Surface Inversion?	No
Weather:	Sunny		

		Sample ID			
Sampler Signature:		SVR-6A	SVR-6B	SV-14	~~SV-14~~ DUP2
Sample Canister ID		8004	13391	37311	36411
Train ID#		20995	FC00173	FC00497	FC00497
Case Volume (L)		0.18	0.18	0.168	0.168
Initial PID Reading		0	0	0	0
Shut-in Test	Time Start	1250	1346	1430	11
	Time Finish	1251	1347	1431	11
	Vacuum Start (in Hg)	17	16	11	11
	Vacuum Finish (in Hg)	17	16	11	11
Sample Purge	Time Start	1253	~~1350~~ 1349	~~1433~~ 1433	1433
	Time Finish	1257	1352	~~1435~~ 1435	1433
	Vacuum Start	16.5	15	~~13~~ 11	11
	Vacuum Finish (in Hg)	14.5	13	~~8~~ 9	9
	Purge Rate (ml/min)	~145	~190	~290	~290
Sample Collection	Time Start	1307	1356	1436	1449
	Time Finish	1314	1406	1447	1501
	Vacuum Start (in Hg)	20	23	-30	-30
	Vacuum Finish (in Hg)	2	1	-2	2
	Sample Rate (ml/min)	~87	~75	~105	~80
	PID Reading in Shroud	61.2	60.7	62.7	64.1
	Barometric Pressure (in Hg)	29.08	29.07	29.01	28.99
	Temperature (F)	~~42.6~~ 42.1	43.4	57.0	57.0

Tubing	Tube Diameter (inches)	0.17	0.25	0.5	0.75
	Volume (liters per foot)	0.004	0.010	0.039	0.087
Sand Pack volumes	Height of Sand Pack (inches)	12	Dry Bentonite Volume	Height of dry bent	12
	Radius of Sand Pack (inches)	0.63		Radius of dry bent	0.63
	Porosity of Sand	0.3		Porosity of bentonite	0.3
	Casing Volume of Sandpack (liters per foot)	0.07		Casing Volume of dry bentonite (liters per foot)	0.07

Notes: 6.6Ft From Building corner
30.4Ft FROM RIGHT DOOR HANDLE (DOOR 103) >SV-14

DUP2 : SV-14 duplicate 1607

SOIL GAS FIELD WORKSHEET

Project Name:	Bentley Mall	Date:	3-25-16
Location:	Charles Slater Subdivision	Client:	Kruz
Sampler:		Surface Inversion? N	Weather: Cloudy

		Sample ID			
Sampler Signature:		SVR-5	SVR-7-LP	SVR-7	SVR4A
Sample Canister ID		1L1591	~~1L1770~~ 34369	36449	37397
Train ID#		FC00558	FC00447	FC00447	FC00800
Case Volume (L)		0.18	0.18	0.18	0.18
Initial PID Reading		0	0	0	0
Shut-in Test	Time Start	940	1030	11	1130
	Time Finish	941	1031	11	1131
	Vacuum Start (in Hg)	12	10	11	10
	Vacuum Finish (in Hg)	12	10	11	10
Sample Purge	Time Start	943	1035	— 11	1131
	Time Finish	948	1040	— 11	1136
	Vacuum Start	11	10	— 11	8
	Vacuum Finish (in Hg)	9	8	— 11	6
	Purge Rate (ml/min)	~116	~116	— 11	~116
Sample Collection	Time Start	959	1047	1059	1138
	Time Finish	1014	1058	1115	1150
	Vacuum Start (in Hg)	23	15	30	30
	Vacuum Finish (in Hg)	2	2	2	2
	Sample Rate (ml/min)	~50	~50	~60	~80
	PID Reading in Shroud	94.2	63.2	63.2	58.3
	Barometric Pressure (in Hg)	29.19	29.15	29.15	29.11
	Temperature (F)	35.2	39.3	39.3	42.7

Tubing	Tube Diameter (inches)	0.17	0.25	0.5	0.75
	Volume (liters per foot)	0.004	0.010	0.039	0.087
Sand Pack volumes	Height of Sand Pack (inches)	12	Dry Bentonite Volume	Height of dry bent	12
	Radius of Sand Pack (inches)	0.63		Radius of dry bent	0.63
	Porosity of Sand	0.3		Porosity of bentonite	0.3
	Casing Volume of Sandpack (liters per foot)	0.07		Casing Volume of dry bentonite (liters per foot)	0.07

Notes: SVR-7 : TWO Canisters were Filled
LP: Low pressure

SVR-7
29 HC
30.4 NS
18.8 W
30.0 S
7 from house

SOIL GAS FIELD WORKSHEET

Project Name:	Bentley Mall	Date:	3-24-16
Location:	~~The~~ Charles Slater Gulf	Client:	Kranz
Sampler:	Yola Bayram	Surface Inversion?	No
Weather:	Sunny		

		Sampler Signature:	Sample ID			
			SV3A	SV3B	SVR1A	SVR1B
	Sample Canister ID		12361	37760	36453	34591
	Train ID#		100308	100298	FC00338	FC00521
	Case Volume (L)		~~0.24~~ 0.18	~~0.24~~ 0.18	~~0.24~~ 0.18	~~0.24~~ 0.18
	Initial PID Reading	ppm	0.1	0	0	0
Shut-in Test	Time Start		1444	1544	1641	1744
	Time Finish		1445	1545	1642	1745
	Vacuum Start (in Hg)		21.5	17.5	21	15
	Vacuum Finish (in Hg)		21.5	17.5	21	15
Sample Purge	Time Start		1500	1548	1640	1745
	Time Finish		1504	1551	1643	1748
	Vacuum Start		19.5	17	15	13
	Vacuum Finish (in Hg)		~~19.5~~ 17.5	15	13	11
	Purge Rate (ml/min)		~145	~190	~190	~190
Sample Collection	Time Start		1505	1552	1646	1750
	Time Finish		1515	1602	1657	1758
	Vacuum Start (in Hg)		27	29.5	21	29
	Vacuum Finish (in Hg)		2	2	1	2
	Sample Rate (ml/min)		~100	~100	~~200~~ ~80	~120
	PID Reading in Shroud	max ppm	~~33.5~~ 33.5	51.8	52.8	50.6
	Barometric Pressure (in Hg)		29.18	29.16	29.18	29.19
	Temperature (F)		~35-42°	~43°	49.1	47.1

Tubing	Tube Diameter (inches)	0.17	0.25	0.5	0.75
	Volume (liters per foot)	0.004	0.010	0.039	0.087
Sand Pack volumes	Height of Sand Pack (inches)	12	Dry Bentonite Volume	Height of dry bent	12
	Radius of Sand Pack (inches)	0.63		Radius of dry bent	0.63
	Porosity of Sand	0.3		Porosity of bentonite	0.3
	Casing Volume of Sandpack (liters per foot)	0.07		Casing Volume of dry bentonite (liters per foot)	0.07

Notes:

SOIL GAS FIELD WORKSHEET

Project Name:	Bentley Mall	Date:	3-24-16 + 3/25/16
Location:	Charles Slater Subdivision	Client:	Krewz+co
Sampler:		Surface Inversion?	N
Weather:	Sunny		

Sampler Signature:

		Sample ID			
		SVR2A	SVR2B	SVR4B	SVR4B-DUP
Sample Canister ID		37710	36517	35594	2L1638
Train ID#		FC00358	~~FC00~~ 6858	FC00440	FC00440
Case Volume (L)		~~0.18~~	~~0.24~~ 0.18	0.18	0.18
Initial PID Reading		0	0	0	0
Shut-in Test	Time Start	1830	1859	1155	"
	Time Finish	1831	1900	1156	"
	Vacuum Start (in Hg)	12	10	5	"
	Vacuum Finish (in Hg)	12	10	5	"
Sample Purge	Time Start	1839	1904	1158	"
	Time Finish	1842	1907	1202	"
	Vacuum Start	12	~~10~~ 10	3	"
	Vacuum Finish (in Hg)	10	8	1	"
	Purge Rate (ml/min)	~190	~190	~145	"
Sample Collection	Time Start	1846	1914	1205	1205
	Time Finish	1856	1924	1214	1214
	Vacuum Start (in Hg)	30	30	26	26
	Vacuum Finish (in Hg)	2	2	~~2~~ 1	1
	Sample Rate (ml/min)	~100	~100	~100	~100
	PID Reading in Shroud	49.1	47.6	57.1	57.1
	Barometric Pressure (in Hg)	29.17	29.17	29.11	29.11
	Temperature (F)	38	38	39.1	39.1

Tubing	Tube Diameter (inches)	0.17	0.25	0.5	0.75
	Volume (liters per foot)	0.004	0.010	0.039	0.087
Sand Pack volumes	Height of Sand Pack (inches)	12	Dry Bentonite Volume	Height of dry bent	12
	Radius of Sand Pack (inches)	0.63		Radius of dry bent	0.63
	Porosity of Sand	0.3		Porosity of bentonite	0.3
	Casing Volume of Sandpack (liters per foot)	0.07		Casing Volume of dry bentonite (liters per foot)	0.07

Notes: SVR4B-DUP = DUP-1 time 1307

APPENDIX C:
LABORATORY ANALYTICAL REPORTS

Laboratory Data Review Checklist for Air Samples

Completed by:	Yola Bayram		
Title:	Geologist	Date:	May 20, 2016
CS Report Name:	Soil Vapor Investigation Report	Report Date:	May 20, 2016
Consultant Firm:	Environmental Resource Group		
Laboratory Name:	Eurofins US	Laboratory Report Number:	1603595AR1
ADEC File Number:	102.38.122	ADEC Haz ID:	

1. Laboratory

a. Did a NELAP certified laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses NELAP approved?

( ) Yes ( ) No (•) NA (Please explain.) Comments:

Samples were not subcontracted

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample condition documented -Samples collected in gas tight, opaque/dark Summa canisters or other ADEC approved container? Canister vacuum/pressure checked, recorded upon receipt and contained no open valves?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. If there were any discrepancies, were they documented? For example, incorrect sample containers/ preservation, sample temperature outside of acceptable range, insufficient or missing samples, canister not holding a vacuum etc.?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

COC info for SV12 did not match and was corrected. SVR6A found to be leaking. Analysis canceled

c. Data quality or usability affected? (Please explain.)

(●) Yes ( ) No ( ) NA (Please explain) Comments:

SVR6A analysis canceled

4. Case Narrative

a. Present and understandable?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

COC info for SV12 did not match and was corrected.

c. Were all corrective actions documented?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

SVR6A analysis canceled . COC info for SV12 did not match and was corrected.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect noted on data quality or usability.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Samples analyzed within 30 days of collection or within the time required by the method?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

c. Are the reported PQLs less than the Target Screening Level or the minimum required detection level for the project?

( ) Yes (●) No ( ) NA (Please explain) Comments:

Two results for TCE are above target levels.

d. Data quality or usability affected?

Comments:

SVR2A and SVR4A are above target levels for TCE

6. QC Samples

a. Method Blank

i. One method blank reported per analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected?

Comments:

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

v. Data quality or usability affected? (Please explain.)

Comments:

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. One LCS/LCSD or one LCS and a sample/sample duplicate pair reported per analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable.

( ) Yes (•) No ( ) NA (Please explain) Comments:

Chloromethane exceeded QC Limits by 1%

iii. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable.

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iv. If %R or RPD is outside of acceptable limits, what samples are affected?

○ Yes ○ No ◉ NA (Please explain) Comments:

NA

v. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

NA

vi. Data quality or usability affected? (Please explain.)

Comments:

Not affected.

c. Surrogates

i. Are surrogate recoveries reported for field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable.

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

iv. Data quality or usability affected? (Please explain.)

Comments:

Not affected

d. Field Duplicate

i. One field duplicate submitted per analysis and 10 type (soil gas, indoor air etc.) samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 25 %)

$$RPD\ (\%) = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

(•) Yes ( ) No ( ) NA (Please explain) Comments:

8.48 to 24.29%

iv. Data quality or usability affected? (Please explain.) Comments:

SVR4 duplicate discarded due to leak check failure

e. Field Blank (If not used explain why).

( ) Yes (•) No ( ) NA (Please explain) Comments:

Lab did not provide nitrogen

i. All results less than PQL?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

ii. If above PQL, what samples are affected? Comments:

iii. Data quality or usability affected? (Please explain.) Comments:

7. Other Data Flags/Qualifiers

a. Defined and appropriate?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Reset Form

eurofins | Air Toxics

5/4/2016
Mr. Rod Satre
Environmental Resource Group
1038 Redwood Highway
Suite 1
Mill Valley CA 94941

Project Name: Bentley Mall
Project #:
Workorder #: 1603595B

Dear Mr. Rod Satre

The following report includes the data for the above referenced project for sample(s) received on 3/30/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1603595B

Work Order Summary

CLIENT:	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941	**BILL TO:**	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941
PHONE:		**P.O. #**	
FAX:		**PROJECT #**	Bentley Mall
DATE RECEIVED:	03/30/2016	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	05/04/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVR3A	Modified ASTM D-1946	1 "Hg	14.8 psi
02A	SVR3B	Modified ASTM D-1946	1.4 "Hg	15.1 psi
03A	SVR1A	Modified ASTM D-1946	0.2 psi	15.1 psi
04A	SVR1B	Modified ASTM D-1946	0.2 "Hg	14.9 psi
05A	SVR2A	Modified ASTM D-1946	0.1 psi	14.7 psi
06A	SVR2B	Modified ASTM D-1946	0 psi	14.7 psi
07A	SVR4A	Modified ASTM D-1946	0.8 "Hg	14.7 psi
08A	SVR4B	Modified ASTM D-1946	1 "Hg	15 psi
09A	SVR5	Modified ASTM D-1946	0.4 psi	15.2 psi
10A	DUP-1	Modified ASTM D-1946	1.4 "Hg	14.9 psi
11A(cancelled)	SVR6A	Modified ASTM D-1946	0.6 psi	15 psi
12A	SVR6B	Modified ASTM D-1946	0.4 psi	14.8 psi
13A	SVR-7	Modified ASTM D-1946	0.8 psi	14.7 psi
14A(on hold)	SVR-7-LP	Modified ASTM D-1946	0.5 psi	14.8 psi
15A	SV-12	Modified ASTM D-1946	0.6 psi	14.9 psi
16A	SV-13	Modified ASTM D-1946	1.2 "Hg	14.9 psi
17A	SV-14	Modified ASTM D-1946	1.8 "Hg	14.9 psi
18A	SV-15	Modified ASTM D-1946	1.8 "Hg	14.8 psi
19A	DUP2	Modified ASTM D-1946	2.2 "Hg	14.8 psi
20A	Lab Blank	Modified ASTM D-1946	NA	NA
20B	Lab Blank	Modified ASTM D-1946	NA	NA
21A	LCS	Modified ASTM D-1946	NA	NA
21AA	LCSD	Modified ASTM D-1946	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1603595B

Work Order Summary

CLIENT:	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941	**BILL TO:**	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941
PHONE:		**P.O. #**	
FAX:		**PROJECT #**	Bentley Mall
DATE RECEIVED:	03/30/2016	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	05/04/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
21B	LCS	Modified ASTM D-1946	NA	NA
21BB	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 05/04/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
Environmental Resource Group
Workorder# 1603595B

Nineteen 1 Liter Summa Canister samples were received on March 30, 2016. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

Sample SVR-7-LP was placed on hold per the client's request.

The Summa canisters for samples SVR6A was leaking upon arrival. The client was notified and the analysis was cancelled.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SVR3A

Lab ID#: 1603595B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	20
Nitrogen	0.21	77
Carbon Dioxide	0.021	2.7

Client Sample ID: SVR3B

Lab ID#: 1603595B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	20
Nitrogen	0.21	78
Carbon Dioxide	0.021	2.1

Client Sample ID: SVR1A

Lab ID#: 1603595B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	21
Nitrogen	0.20	78
Carbon Dioxide	0.020	0.75

Client Sample ID: SVR1B

Lab ID#: 1603595B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	21
Nitrogen	0.20	78
Carbon Dioxide	0.020	0.91

Client Sample ID: SVR2A

Lab ID#: 1603595B-05A

Compound	Rpt. Limit (%)	Amount (%)

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SVR2A

Lab ID#: 1603595B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	19
Nitrogen	0.20	78
Carbon Dioxide	0.020	3.2

Client Sample ID: SVR2B

Lab ID#: 1603595B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	19
Nitrogen	0.20	78
Carbon Dioxide	0.020	3.4

Client Sample ID: SVR4A

Lab ID#: 1603595B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	20
Nitrogen	0.21	78
Carbon Dioxide	0.021	2.1

Client Sample ID: SVR4B

Lab ID#: 1603595B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	18
Nitrogen	0.21	79
Carbon Dioxide	0.021	3.0

Client Sample ID: SVR5

Lab ID#: 1603595B-09A

Compound	Rpt. Limit (%)	Amount (%)

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SVR5

Lab ID#: 1603595B-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	19
Nitrogen	0.20	78
Carbon Dioxide	0.020	2.9

Client Sample ID: DUP-1

Lab ID#: 1603595B-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	21
Nitrogen	0.21	78
Carbon Dioxide	0.021	0.79

Client Sample ID: SVR6B

Lab ID#: 1603595B-12A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	21
Nitrogen	0.20	78
Carbon Dioxide	0.020	0.80

Client Sample ID: SVR-7

Lab ID#: 1603595B-13A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	18
Nitrogen	0.19	78
Carbon Dioxide	0.019	4.3

Client Sample ID: SV-12

Lab ID#: 1603595B-15A

Compound	Rpt. Limit (%)	Amount (%)

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SV-12

Lab ID#: 1603595B-15A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	20
Nitrogen	0.19	78
Methane	0.00019	0.00024
Carbon Dioxide	0.019	1.8

Client Sample ID: SV-13

Lab ID#: 1603595B-16A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	21
Nitrogen	0.21	78
Carbon Dioxide	0.021	0.82

Client Sample ID: SV-14

Lab ID#: 1603595B-17A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	21
Nitrogen	0.21	78
Methane	0.00021	0.00021
Carbon Dioxide	0.021	1.3

Client Sample ID: SV-15

Lab ID#: 1603595B-18A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	16
Nitrogen	0.21	77
Carbon Dioxide	0.021	7.0

Client Sample ID: DUP2

Lab ID#: 1603595B-19A

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: DUP2

Lab ID#: 1603595B-19A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	20
Nitrogen	0.22	79
Carbon Dioxide	0.022	1.3

eurofins | Air Toxics

Client Sample ID: SVR3A

Lab ID#: 1603595B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040505**	**Date of Collection: 3/24/16 3:15:00 PM**	
Dil. Factor:	**2.08**	**Date of Analysis: 4/5/16 09:27 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	20
Nitrogen	0.21	77
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	2.7

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR3B

Lab ID#: 1603595B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040506**	**Date of Collection: 3/24/16 4:02:00 PM**	
Dil. Factor:	**2.13**	**Date of Analysis: 4/5/16 09:57 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	20
Nitrogen	0.21	78
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	2.1

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR1A

Lab ID#: 1603595B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040507**	**Date of Collection: 3/24/16 4:57:00 PM**	
Dil. Factor:	**2.00**	**Date of Analysis: 4/5/16 10:19 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	21
Nitrogen	0.20	78
Methane	0.00020	Not Detected
Carbon Dioxide	0.020	0.75

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR1B

Lab ID#: 1603595B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040508**	**Date of Collection: 3/24/16 5:58:00 PM**	
Dil. Factor:	**2.03**	**Date of Analysis: 4/5/16 10:51 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.20	21
Nitrogen	0.20	78
Methane	0.00020	Not Detected
Carbon Dioxide	0.020	0.91

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR2A

Lab ID#: 1603595B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040509**	**Date of Collection: 3/24/16 6:56:00 PM**	
Dil. Factor:	**1.99**	**Date of Analysis: 4/5/16 11:18 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.20	19
Nitrogen	0.20	78
Methane	0.00020	Not Detected
Carbon Dioxide	0.020	3.2

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR2B

Lab ID#: 1603595B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040510**	**Date of Collection: 3/24/16 7:24:00 PM**	
Dil. Factor:	**2.00**	**Date of Analysis: 4/5/16 11:45 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.20	19
Nitrogen	0.20	78
Methane	0.00020	Not Detected
Carbon Dioxide	0.020	3.4

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR4A

Lab ID#: 1603595B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040511**	**Date of Collection: 3/25/16 11:50:00 AM**	
Dil. Factor:	**2.06**	**Date of Analysis: 4/5/16 12:13 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	20
Nitrogen	0.21	78
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	2.1

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR4B

Lab ID#: 1603595B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040512**	**Date of Collection: 3/25/16 12:14:00 PM**	
Dil. Factor:	**2.09**	**Date of Analysis: 4/5/16 12:42 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	18
Nitrogen	0.21	79
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	3.0

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR5

Lab ID#: 1603595B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040513**	**Date of Collection: 3/25/16 10:14:00 AM**	
Dil. Factor:	**1.98**	**Date of Analysis: 4/5/16 01:25 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.20	19
Nitrogen	0.20	78
Methane	0.00020	Not Detected
Carbon Dioxide	0.020	2.9

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: DUP-1

Lab ID#: 1603595B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040514**	**Date of Collection: 3/25/16 1:07:00 PM**	
Dil. Factor:	**2.11**	**Date of Analysis: 4/5/16 01:48 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.21	21
Nitrogen	0.21	78
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	0.79

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR6B

Lab ID#: 1603595B-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040515**	**Date of Collection: 3/25/16 2:06:00 PM**	
Dil. Factor:	**1.95**	**Date of Analysis: 4/5/16 02:14 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.20	21
Nitrogen	0.20	78
Methane	0.00020	Not Detected
Carbon Dioxide	0.020	0.80

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SVR-7

Lab ID#: 1603595B-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040516**	**Date of Collection: 3/25/16 11:15:00 AM**	
Dil. Factor:	**1.90**	**Date of Analysis: 4/5/16 02:41 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.19	18
Nitrogen	0.19	78
Methane	0.00019	Not Detected
Carbon Dioxide	0.019	4.3

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SV-12

Lab ID#: 1603595B-15A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040606**	**Date of Collection: 3/25/16 5:22:00 PM**	
Dil. Factor:	**1.93**	**Date of Analysis: 4/6/16 09:56 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.19	20
Nitrogen	0.19	78
Methane	0.00019	0.00024
Carbon Dioxide	0.019	1.8

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SV-13

Lab ID#: 1603595B-16A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040607**	**Date of Collection: 3/25/16 4:12:00 PM**	
Dil. Factor:	**2.10**	**Date of Analysis: 4/6/16 10:24 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.21	21
Nitrogen	0.21	78
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	0.82

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SV-14

Lab ID#: 1603595B-17A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040608**	**Date of Collection: 3/25/16 2:47:00 PM**	
Dil. Factor:	**2.14**	**Date of Analysis: 4/6/16 11:07 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.21	21
Nitrogen	0.21	78
Methane	0.00021	0.00021
Carbon Dioxide	0.021	1.3

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: SV-15

Lab ID#: 1603595B-18A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040609**	**Date of Collection: 3/25/16 3:38:00 PM**	
Dil. Factor:	**2.14**	**Date of Analysis: 4/6/16 11:31 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.21	16
Nitrogen	0.21	77
Methane	0.00021	Not Detected
Carbon Dioxide	0.021	7.0

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: DUP2

Lab ID#: 1603595B-19A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040610**	**Date of Collection: 3/25/16 4:07:00 PM**	
Dil. Factor:	**2.17**	**Date of Analysis: 4/6/16 11:55 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.22	20
Nitrogen	0.22	79
Methane	0.00022	Not Detected
Carbon Dioxide	0.022	1.3

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595B-20A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/5/16 08:54 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595B-20B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 09:04 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595B-21A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/5/16 07:11 AM**	

Compound	%Recovery	Method Limits
Oxygen	99	85-115
Nitrogen	93	85-115
Methane	103	85-115
Carbon Dioxide	100	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595B-21AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040517**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/5/16 03:10 PM**	

Compound	%Recovery	Method Limits
Oxygen	100	85-115
Nitrogen	92	85-115
Methane	102	85-115
Carbon Dioxide	100	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595B-21B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 08:10 AM**	

Compound	%Recovery	Method Limits
Oxygen	99	85-115
Nitrogen	92	85-115
Methane	102	85-115
Carbon Dioxide	99	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595B-21BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10040617**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 03:12 PM**	

Compound	%Recovery	Method Limits
Oxygen	100	85-115
Nitrogen	92	85-115
Methane	102	85-115
Carbon Dioxide	100	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

5/13/2016
Mr. Rod Satre
Environmental Resource Group
1038 Redwood Highway
Suite 1
Mill Valley CA 94941

Project Name: Bentley Mall
Project #:
Workorder #: 1603595AR1

Dear Mr. Rod Satre

The following report includes the data for the above referenced project for sample(s) received on 3/30/2016 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1603595AR1

Work Order Summary

CLIENT:	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941	**BILL TO:**	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941
PHONE:		**P.O. #**	
FAX:		**PROJECT #**	Bentley Mall
DATE RECEIVED:	03/30/2016	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	04/12/2016		
DATE REISSUED:	05/13/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVR3A	TO-15	1 "Hg	14.8 psi
02A	SVR3B	TO-15	1.4 "Hg	15.1 psi
03A	SVR1A	TO-15	0.2 psi	15.1 psi
04A	SVR1B	TO-15	0.2 "Hg	14.9 psi
05A	SVR2A	TO-15	0.1 psi	14.7 psi
06A	SVR2B	TO-15	0 psi	14.7 psi
07A	SVR4A	TO-15	0.8 "Hg	14.7 psi
08A	SVR4B	TO-15	1 "Hg	15 psi
09A	SVR5	TO-15	0.4 psi	15.2 psi
10A	DUP-1	TO-15	1.4 "Hg	14.9 psi
11A(cancelled)	SVR6A	TO-15	0.6 psi	15 psi
12A	SVR6B	TO-15	0.4 psi	14.8 psi
13A	SVR-7	TO-15	0.8 psi	14.7 psi
15A	SV-12	TO-15	0.6 psi	14.9 psi
16A	SV-13	TO-15	1.2 "Hg	14.9 psi
17A	SV-14	TO-15	1.8 "Hg	14.9 psi
18A	SV-15	TO-15	1.8 "Hg	14.8 psi
19A	DUP2	TO-15	2.2 "Hg	14.8 psi
20A	Lab Blank	TO-15	NA	NA
20B	Lab Blank	TO-15	NA	NA
20C	Lab Blank	TO-15	NA	NA
20D	Lab Blank	TO-15	NA	NA
21A	CCV	TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1603595AR1

Work Order Summary

CLIENT:	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941	**BILL TO:**	Mr. Rod Satre Environmental Resource Group 1038 Redwood Highway Suite 1 Mill Valley, CA 94941
PHONE:		**P.O. #**	
FAX:		**PROJECT #**	Bentley Mall
DATE RECEIVED:	03/30/2016	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	04/12/2016		
DATE REISSUED:	05/13/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
21B	CCV	TO-15	NA	NA
21C	CCV	TO-15	NA	NA
21D	CCV	TO-15	NA	NA
22A	LCS	TO-15	NA	NA
22AA	LCSD	TO-15	NA	NA
22B	LCS	TO-15	NA	NA
22BB	LCSD	TO-15	NA	NA
22C	LCS	TO-15	NA	NA
22CC	LCSD	TO-15	NA	NA
22D	LCS	TO-15	NA	NA
22DD	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 05/13/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Environmental Resource Group
Workorder# 1603595AR1

Nineteen 1 Liter Summa Canister samples were received on March 30, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) information for sample SV-12 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

The workorder was reissued on 05/13/16 to cancel sample SVR6A and amend the following narrative:

The Summa canister for sample SVR6A was leaking upon arrival. The client was notified and the analysis cancelled. The narrative referencing this sample in the analytical notes has also been amended.

Analytical Notes

Dilution was performed on samples SVR2A, SVR4A, DUP-1, and SVR6B due to the presence of high level target species.

2-Propanol exceeded the instrument's calibration range for sample SVR4B and was flagged accordingly.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVR3A

Lab ID#: 1603595AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	1.4	5.1	7.1
2-Propanol	4.2	4.2	10	10
Tetrahydrofuran	1.0	2.4	3.1	7.1
Trichloroethene	1.0	2.5	5.6	13
Toluene	1.0	24	3.9	90
Tetrachloroethene	1.0	37	7.0	250
Ethyl Benzene	1.0	4.7	4.5	20
m,p-Xylene	1.0	16	4.5	71
o-Xylene	1.0	4.2	4.5	18
4-Ethyltoluene	1.0	1.6	5.1	7.9

Client Sample ID: SVR3B

Lab ID#: 1603595AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.3	17	10	42
Trichloroethene	1.1	3.0	5.7	16
Toluene	1.1	2.8	4.0	10
Tetrachloroethene	1.1	59	7.2	400
m,p-Xylene	1.1	1.1	4.6	4.8

Client Sample ID: SVR1A

Lab ID#: 1603595AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	5.9	4.9	29
Ethanol	4.0	5.0	7.5	9.5
2-Propanol	4.0	19	9.8	46
trans-1,2-Dichloroethene	1.0	4.2	4.0	17
Hexane	1.0	1.3	3.5	4.6
Benzene	1.0	2.8	3.2	8.8
Heptane	1.0	4.1	4.1	17
4-Methyl-2-pentanone	1.0	1.2	4.1	5.0

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVR1A

Lab ID#: 1603595AR1-03A

Toluene	1.0	36	3.8	140
Tetrachloroethene	1.0	4.4	6.8	30
Ethyl Benzene	1.0	3.1	4.3	14
m,p-Xylene	1.0	9.7	4.3	42
o-Xylene	1.0	2.9	4.3	12
4-Ethyltoluene	1.0	1.1	4.9	5.3
1,2,4-Trimethylbenzene	1.0	0.99 J	4.9	4.9 J

Client Sample ID: SVR1B

Lab ID#: 1603595AR1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	22	5.0	110
Freon 11	1.0	4.4	5.7	25
Acetone	10	13	24	31
4-Methyl-2-pentanone	1.0	1.3	4.2	5.4
Toluene	1.0	8.2	3.8	31
Tetrachloroethene	1.0	21	6.9	140
m,p-Xylene	1.0	2.4	4.4	10

Client Sample ID: SVR2A

Lab ID#: 1603595AR1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	5.0	50	28	280
trans-1,2-Dichloroethene	5.0	97	20	380
Hexane	5.0	8.5	17	30
Cyclohexane	5.0	110	17	380
Heptane	5.0	54	20	220
Toluene	5.0	150	19	560
Ethyl Benzene	5.0	210	22	920
m,p-Xylene	5.0	920	22	4000
o-Xylene	5.0	890	22	3900
Cumene	5.0	160	24	780

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVR2A

Lab ID#: 1603595AR1-05A

Propylbenzene	5.0	220	24	1100
4-Ethyltoluene	5.0	1100	24	5400
1,3,5-Trimethylbenzene	5.0	840	24	4100
1,2,4-Trimethylbenzene	5.0	1200	24	5900

Client Sample ID: SVR2B

Lab ID#: 1603595AR1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	39	5.6	220
trans-1,2-Dichloroethene	1.0	330	4.0	1300
Chloroform	1.0	2.1	4.9	10
Toluene	1.0	2.3	3.8	8.6
Tetrachloroethene	1.0	1.3	6.8	8.6
m,p-Xylene	1.0	1.3	4.3	5.6

Client Sample ID: SVR4A

Lab ID#: 1603595AR1-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,2-Dichloroethene	6.8	1900	27	7600
Toluene	6.8	52	26	200
Tetrachloroethene	6.8	14	46	95
Ethyl Benzene	6.8	11	30	50
m,p-Xylene	6.8	42	30	180
o-Xylene	6.8	13	30	56

Client Sample ID: SVR4B

Lab ID#: 1603595AR1-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	1.7	5.2	8.4
Freon 11	1.0	1.4	5.9	7.6
2-Propanol	4.2	450 E	10	1100 E

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVR4B

Lab ID#: 1603595AR1-08A

trans-1,2-Dichloroethene	1.0	9.6	4.1	38
Benzene	1.0	2.1	3.3	6.6
Heptane	1.0	1.5	4.3	6.3
Trichloroethene	1.0	21	5.6	110
Toluene	1.0	72	3.9	270
Tetrachloroethene	1.0	220	7.1	1500
Ethyl Benzene	1.0	8.6	4.5	38
m,p-Xylene	1.0	29	4.5	120
o-Xylene	1.0	7.6	4.5	33
4-Ethyltoluene	1.0	2.7	5.1	13
1,2,4-Trimethylbenzene	1.0	1.5	5.1	7.3

Client Sample ID: SVR5

Lab ID#: 1603595AR1-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.99	2.7	4.9	13
Freon 11	0.99	120	5.6	670
2-Propanol	4.0	8.2	9.7	20
Chloroform	0.99	0.99	4.8	4.8
1,1,1-Trichloroethane	0.99	16	5.4	85
Trichloroethene	0.99	8.7	5.3	47
Toluene	0.99	2.6	3.7	9.8
Tetrachloroethene	0.99	110	6.7	760

Client Sample ID: DUP-1

Lab ID#: 1603595AR1-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	4200	5200	10000	12000
2-Propanol	4200	130000	10000	320000

Client Sample ID: SVR6B

Lab ID#: 1603595AR1-12A

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: SVR6B

Lab ID#: 1603595AR1-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	320	450	770	1100
2-Propanol	320	14000	800	33000

Client Sample ID: SVR-7

Lab ID#: 1603595AR1-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.95	3.7	5.3	21
2-Propanol	3.8	28	9.3	70
trans-1,2-Dichloroethene	0.95	5.5	3.8	22
Heptane	0.95	1.2	3.9	4.8
Toluene	0.95	12	3.6	44
Ethyl Benzene	0.95	1.1	4.1	4.7
m,p-Xylene	0.95	3.1	4.1	13

Client Sample ID: SV-12

Lab ID#: 1603595AR1-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.96	3.4	4.8	17
Freon 11	0.96	14	5.4	80
2-Propanol	3.9	89	9.5	220
Cyclohexane	0.96	1.4	3.3	4.8
Heptane	0.96	1.5	4.0	6.0
Toluene	0.96	42	3.6	160
Tetrachloroethene	0.96	4.0	6.5	27
m,p-Xylene	0.96	1.8	4.2	7.9

Client Sample ID: SV-13

Lab ID#: 1603595AR1-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-13

Lab ID#: 1603595AR1-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	5.0	5.2	25
Freon 11	1.0	12	5.9	67
Chloroform	1.0	15	5.1	75
Toluene	1.0	3.0	4.0	12
m,p-Xylene	1.0	1.3	4.6	5.6

Client Sample ID: SV-14

Lab ID#: 1603595AR1-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	2.7	5.3	13
Acetone	11	40	25	94
2-Propanol	4.3	25	10	62
2-Butanone (Methyl Ethyl Ketone)	4.3	7.9	13	23
Tetrahydrofuran	1.1	1.5	3.2	4.4
4-Methyl-2-pentanone	1.1	1.6	4.4	6.6
Toluene	1.1	21	4.0	79
Ethyl Benzene	1.1	2.2	4.6	9.4
m,p-Xylene	1.1	5.2	4.6	23
o-Xylene	1.1	1.4	4.6	6.0

Client Sample ID: SV-15

Lab ID#: 1603595AR1-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	5.5	5.3	27
Freon 11	1.1	5.7	6.0	32
2-Propanol	4.3	7.8	10	19
Toluene	1.1	1.3	4.0	5.0

Client Sample ID: DUP2

Lab ID#: 1603595AR1-19A

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DUP2

Lab ID#: 1603595AR1-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	2.6	5.3	13
Acetone	11	33	26	80
2-Propanol	4.3	18	11	45
2-Butanone (Methyl Ethyl Ketone)	4.3	6.1	13	18
Tetrahydrofuran	1.1	1.3	3.2	3.7
4-Methyl-2-pentanone	1.1	1.5	4.4	6.2
Toluene	1.1	23	4.1	86
Ethyl Benzene	1.1	2.7	4.7	12
m,p-Xylene	1.1	7.3	4.7	32
o-Xylene	1.1	2.0	4.7	8.5

eurofins | Air Toxics

Client Sample ID: SVR3A

Lab ID#: 1603595AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040409**	**Date of Collection: 3/24/16 3:15:00 PM**	
Dil. Factor:	**2.08**	**Date of Analysis: 4/4/16 10:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	1.4	5.1	7.1
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	10	Not Detected UJ	21	Not Detected UJ
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	4.2	Not Detected	7.8	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	25	Not Detected
2-Propanol	4.2	4.2	10	10
Carbon Disulfide	4.2	Not Detected	13	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	2.4	3.1	7.1
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Trichloroethene	1.0	2.5	5.6	13
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	24	3.9	90
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	37	7.0	250
2-Hexanone	4.2	Not Detected	17	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR3A

Lab ID#: 1603595AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040409**	**Date of Collection: 3/24/16 3:15:00 PM**	
Dil. Factor:	**2.08**	**Date of Analysis: 4/4/16 10:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	4.7	4.5	20
m,p-Xylene	1.0	16	4.5	71
o-Xylene	1.0	4.2	4.5	18
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	1.6	5.1	7.9
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	44	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: SVR3B

Lab ID#: 1603595AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040410**	**Date of Collection:**	**3/24/16 4:02:00 PM**
Dil. Factor:	**2.13**	**Date of Analysis:**	**4/4/16 11:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.4	Not Detected
Chloromethane	11	Not Detected UJ	22	Not Detected UJ
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	11	Not Detected	41	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Ethanol	4.3	Not Detected	8.0	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Acetone	11	Not Detected	25	Not Detected
2-Propanol	4.3	17	10	42
Carbon Disulfide	4.3	Not Detected	13	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.1	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	3.0	5.7	16
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Bromodichloromethane	1.1	Not Detected	7.1	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	2.8	4.0	10
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	59	7.2	400
2-Hexanone	4.3	Not Detected	17	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR3B

Lab ID#: 1603595AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040410**	**Date of Collection:**	**3/24/16 4:02:00 PM**
Dil. Factor:	**2.13**	**Date of Analysis:**	**4/4/16 11:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
m,p-Xylene	1.1	1.1	4.6	4.8
o-Xylene	1.1	Not Detected	4.6	Not Detected
Styrene	1.1	Not Detected	4.5	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
Propylbenzene	1.1	Not Detected	5.2	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	45	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: SVR1A

Lab ID#: 1603595AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040616**	**Date of Collection:**	**3/24/16 4:57:00 PM**
Dil. Factor:	**2.00**	**Date of Analysis:**	**4/6/16 05:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	5.9	4.9	29
Freon 114	1.0	Not Detected	7.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Chloroethane	4.0	Not Detected	10	Not Detected
Freon 11	1.0	Not Detected	5.6	Not Detected
Ethanol	4.0	5.0	7.5	9.5
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Acetone	10	Not Detected	24	Not Detected
2-Propanol	4.0	19	9.8	46
Carbon Disulfide	4.0	Not Detected	12	Not Detected
3-Chloropropene	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.6	Not Detected
trans-1,2-Dichloroethene	1.0	4.2	4.0	17
Hexane	1.0	1.3	3.5	4.6
1,1-Dichloroethane	1.0	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	2.9	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.4	Not Detected
Cyclohexane	1.0	Not Detected	3.4	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.3	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Benzene	1.0	2.8	3.2	8.8
1,2-Dichloroethane	1.0	Not Detected	4.0	Not Detected
Heptane	1.0	4.1	4.1	17
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.6	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	1.0	Not Detected	6.7	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.5	Not Detected
4-Methyl-2-pentanone	1.0	1.2	4.1	5.0
Toluene	1.0	36	3.8	140
trans-1,3-Dichloropropene	1.0	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.4	Not Detected
Tetrachloroethene	1.0	4.4	6.8	30
2-Hexanone	4.0	Not Detected	16	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR1A

Lab ID#: 1603595AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040616**	**Date of Collection: 3/24/16 4:57:00 PM**	
Dil. Factor:	**2.00**	**Date of Analysis: 4/6/16 05:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.5	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.7	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Ethyl Benzene	1.0	3.1	4.3	14
m,p-Xylene	1.0	9.7	4.3	42
o-Xylene	1.0	2.9	4.3	12
Styrene	1.0	Not Detected	4.2	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	4.9	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
Propylbenzene	1.0	Not Detected	4.9	Not Detected
4-Ethyltoluene	1.0	1.1	4.9	5.3
1,3,5-Trimethylbenzene	1.0	Not Detected	4.9	Not Detected
1,2,4-Trimethylbenzene	1.0	0.99 J	4.9	4.9 J
1,3-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: SVR1B

Lab ID#: 1603595AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040411**	**Date of Collection:**	**3/24/16 5:58:00 PM**
Dil. Factor:	**2.03**	**Date of Analysis:**	**4/4/16 11:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	22	5.0	110
Freon 114	1.0	Not Detected	7.1	Not Detected
Chloromethane	10	Not Detected UJ	21	Not Detected UJ
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Freon 11	1.0	4.4	5.7	25
Ethanol	4.1	Not Detected	7.6	Not Detected
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Acetone	10	13	24	31
2-Propanol	4.1	Not Detected	10	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.6	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	1.3	4.2	5.4
Toluene	1.0	8.2	3.8	31
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	21	6.9	140
2-Hexanone	4.1	Not Detected	17	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR1B

Lab ID#: 1603595AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040411**	**Date of Collection: 3/24/16 5:58:00 PM**	
Dil. Factor:	**2.03**	**Date of Analysis: 4/4/16 11:43 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	2.4	4.4	10
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	43	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: SVR2A

Lab ID#: 1603595AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040414**	**Date of Collection: 3/24/16 6:56:00 PM**	
Dil. Factor:	**9.93**	**Date of Analysis: 4/5/16 12:57 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	24	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	50	Not Detected UJ	100	Not Detected UJ
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	50	Not Detected	190	Not Detected
Chloroethane	20	Not Detected	52	Not Detected
Freon 11	5.0	50	28	280
Ethanol	20	Not Detected	37	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	50	Not Detected	120	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	20	Not Detected	62	Not Detected
3-Chloropropene	20	Not Detected	62	Not Detected
Methylene Chloride	50	Not Detected	170	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	97	20	380
Hexane	5.0	8.5	17	30
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	58	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	110	17	380
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	54	20	220
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	33	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	22	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	150	19	560
trans-1,3-Dichloropropene	5.0	Not Detected	22	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	81	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR2A

Lab ID#: 1603595AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040414**	**Date of Collection: 3/24/16 6:56:00 PM**	
Dil. Factor:	**9.93**	**Date of Analysis: 4/5/16 12:57 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	210	22	920
m,p-Xylene	5.0	920	22	4000
o-Xylene	5.0	890	22	3900
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	51	Not Detected
Cumene	5.0	160	24	780
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	220	24	1100
4-Ethyltoluene	5.0	1100	24	5400
1,3,5-Trimethylbenzene	5.0	840	24	4100
1,2,4-Trimethylbenzene	5.0	1200	24	5900
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	116	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: SVR2B

Lab ID#: 1603595AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040412**	**Date of Collection: 3/24/16 7:24:00 PM**	
Dil. Factor:	**2.00**	**Date of Analysis: 4/5/16 12:09 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	4.9	Not Detected
Freon 114	1.0	Not Detected	7.0	Not Detected
Chloromethane	10	Not Detected UJ	21	Not Detected UJ
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Chloroethane	4.0	Not Detected	10	Not Detected
Freon 11	1.0	39	5.6	220
Ethanol	4.0	Not Detected	7.5	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Acetone	10	Not Detected	24	Not Detected
2-Propanol	4.0	Not Detected	9.8	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
3-Chloropropene	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.6	Not Detected
trans-1,2-Dichloroethene	1.0	330	4.0	1300
Hexane	1.0	Not Detected	3.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	2.9	Not Detected
Chloroform	1.0	2.1	4.9	10
1,1,1-Trichloroethane	1.0	Not Detected	5.4	Not Detected
Cyclohexane	1.0	Not Detected	3.4	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.3	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.0	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.6	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	1.0	Not Detected	6.7	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.5	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Toluene	1.0	2.3	3.8	8.6
trans-1,3-Dichloropropene	1.0	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.4	Not Detected
Tetrachloroethene	1.0	1.3	6.8	8.6
2-Hexanone	4.0	Not Detected	16	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR2B

Lab ID#: 1603595AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040412**	**Date of Collection:**	**3/24/16 7:24:00 PM**
Dil. Factor:	**2.00**	**Date of Analysis:**	**4/5/16 12:09 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.5	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.7	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Ethyl Benzene	1.0	Not Detected	4.3	Not Detected
m,p-Xylene	1.0	1.3	4.3	5.6
o-Xylene	1.0	Not Detected	4.3	Not Detected
Styrene	1.0	Not Detected	4.2	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	4.9	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
Propylbenzene	1.0	Not Detected	4.9	Not Detected
4-Ethyltoluene	1.0	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	4.9	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	4.9	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: SVR4A

Lab ID#: 1603595AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040413**	**Date of Collection: 3/25/16 11:50:00 AM**	
Dil. Factor:	**13.7**	**Date of Analysis: 4/5/16 12:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.8	Not Detected	34	Not Detected
Freon 114	6.8	Not Detected	48	Not Detected
Chloromethane	68	Not Detected UJ	140	Not Detected UJ
Vinyl Chloride	6.8	Not Detected	18	Not Detected
1,3-Butadiene	6.8	Not Detected	15	Not Detected
Bromomethane	68	Not Detected	270	Not Detected
Chloroethane	27	Not Detected	72	Not Detected
Freon 11	6.8	Not Detected	38	Not Detected
Ethanol	27	Not Detected	52	Not Detected
Freon 113	6.8	Not Detected	52	Not Detected
1,1-Dichloroethene	6.8	Not Detected	27	Not Detected
Acetone	68	Not Detected	160	Not Detected
2-Propanol	27	Not Detected	67	Not Detected
Carbon Disulfide	27	Not Detected	85	Not Detected
3-Chloropropene	27	Not Detected	86	Not Detected
Methylene Chloride	68	Not Detected	240	Not Detected
Methyl tert-butyl ether	6.8	Not Detected	25	Not Detected
trans-1,2-Dichloroethene	6.8	1900	27	7600
Hexane	6.8	Not Detected	24	Not Detected
1,1-Dichloroethane	6.8	Not Detected	28	Not Detected
2-Butanone (Methyl Ethyl Ketone)	27	Not Detected	81	Not Detected
cis-1,2-Dichloroethene	6.8	Not Detected	27	Not Detected
Tetrahydrofuran	6.8	Not Detected	20	Not Detected
Chloroform	6.8	Not Detected	33	Not Detected
1,1,1-Trichloroethane	6.8	Not Detected	37	Not Detected
Cyclohexane	6.8	Not Detected	24	Not Detected
Carbon Tetrachloride	6.8	Not Detected	43	Not Detected
2,2,4-Trimethylpentane	6.8	Not Detected	32	Not Detected
Benzene	6.8	Not Detected	22	Not Detected
1,2-Dichloroethane	6.8	Not Detected	28	Not Detected
Heptane	6.8	Not Detected	28	Not Detected
Trichloroethene	6.8	Not Detected	37	Not Detected
1,2-Dichloropropane	6.8	Not Detected	32	Not Detected
1,4-Dioxane	27	Not Detected	99	Not Detected
Bromodichloromethane	6.8	Not Detected	46	Not Detected
cis-1,3-Dichloropropene	6.8	Not Detected	31	Not Detected
4-Methyl-2-pentanone	6.8	Not Detected	28	Not Detected
Toluene	6.8	52	26	200
trans-1,3-Dichloropropene	6.8	Not Detected	31	Not Detected
1,1,2-Trichloroethane	6.8	Not Detected	37	Not Detected
Tetrachloroethene	6.8	14	46	95
2-Hexanone	27	Not Detected	110	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR4A

Lab ID#: 1603595AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040413**	**Date of Collection:**	**3/25/16 11:50:00 AM**
Dil. Factor:	**13.7**	**Date of Analysis:**	**4/5/16 12:33 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	6.8	Not Detected	58	Not Detected
1,2-Dibromoethane (EDB)	6.8	Not Detected	53	Not Detected
Chlorobenzene	6.8	Not Detected	32	Not Detected
Ethyl Benzene	6.8	11	30	50
m,p-Xylene	6.8	42	30	180
o-Xylene	6.8	13	30	56
Styrene	6.8	Not Detected	29	Not Detected
Bromoform	6.8	Not Detected	71	Not Detected
Cumene	6.8	Not Detected	34	Not Detected
1,1,2,2-Tetrachloroethane	6.8	Not Detected	47	Not Detected
Propylbenzene	6.8	Not Detected	34	Not Detected
4-Ethyltoluene	6.8	Not Detected	34	Not Detected
1,3,5-Trimethylbenzene	6.8	Not Detected	34	Not Detected
1,2,4-Trimethylbenzene	6.8	Not Detected	34	Not Detected
1,3-Dichlorobenzene	6.8	Not Detected	41	Not Detected
1,4-Dichlorobenzene	6.8	Not Detected	41	Not Detected
alpha-Chlorotoluene	6.8	Not Detected	35	Not Detected
1,2-Dichlorobenzene	6.8	Not Detected	41	Not Detected
1,2,4-Trichlorobenzene	27	Not Detected	200	Not Detected
Hexachlorobutadiene	27	Not Detected	290	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: SVR4B

Lab ID#: 1603595AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040615**	**Date of Collection: 3/25/16 12:14:00 PM**	
Dil. Factor:	**2.09**	**Date of Analysis: 4/6/16 04:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	1.7	5.2	8.4
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Freon 11	1.0	1.4	5.9	7.6
Ethanol	4.2	Not Detected	7.9	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	25	Not Detected
2-Propanol	4.2	450 E	10	1100 E
Carbon Disulfide	4.2	Not Detected	13	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.0	9.6	4.1	38
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
Benzene	1.0	2.1	3.3	6.6
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	1.5	4.3	6.3
Trichloroethene	1.0	21	5.6	110
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	72	3.9	270
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	220	7.1	1500
2-Hexanone	4.2	Not Detected	17	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR4B

Lab ID#: 1603595AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040615**	**Date of Collection: 3/25/16 12:14:00 PM**	
Dil. Factor:	**2.09**	**Date of Analysis: 4/6/16 04:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	8.6	4.5	38
m,p-Xylene	1.0	29	4.5	120
o-Xylene	1.0	7.6	4.5	33
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	2.7	5.1	13
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	1.5	5.1	7.3
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	44	Not Detected

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: SVR5

Lab ID#: 1603595AR1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040614**	**Date of Collection:**	**3/25/16 10:14:00 AM**
Dil. Factor:	**1.98**	**Date of Analysis:**	**4/6/16 04:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.99	2.7	4.9	13
Freon 114	0.99	Not Detected	6.9	Not Detected
Chloromethane	9.9	Not Detected	20	Not Detected
Vinyl Chloride	0.99	Not Detected	2.5	Not Detected
1,3-Butadiene	0.99	Not Detected	2.2	Not Detected
Bromomethane	9.9	Not Detected	38	Not Detected
Chloroethane	4.0	Not Detected	10	Not Detected
Freon 11	0.99	120	5.6	670
Ethanol	4.0	Not Detected	7.5	Not Detected
Freon 113	0.99	Not Detected	7.6	Not Detected
1,1-Dichloroethene	0.99	Not Detected	3.9	Not Detected
Acetone	9.9	Not Detected	24	Not Detected
2-Propanol	4.0	8.2	9.7	20
Carbon Disulfide	4.0	Not Detected	12	Not Detected
3-Chloropropene	4.0	Not Detected	12	Not Detected
Methylene Chloride	9.9	Not Detected	34	Not Detected
Methyl tert-butyl ether	0.99	Not Detected	3.6	Not Detected
trans-1,2-Dichloroethene	0.99	Not Detected	3.9	Not Detected
Hexane	0.99	Not Detected	3.5	Not Detected
1,1-Dichloroethane	0.99	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	0.99	Not Detected	3.9	Not Detected
Tetrahydrofuran	0.99	Not Detected	2.9	Not Detected
Chloroform	0.99	0.99	4.8	4.8
1,1,1-Trichloroethane	0.99	16	5.4	85
Cyclohexane	0.99	Not Detected	3.4	Not Detected
Carbon Tetrachloride	0.99	Not Detected	6.2	Not Detected
2,2,4-Trimethylpentane	0.99	Not Detected	4.6	Not Detected
Benzene	0.99	Not Detected	3.2	Not Detected
1,2-Dichloroethane	0.99	Not Detected	4.0	Not Detected
Heptane	0.99	Not Detected	4.0	Not Detected
Trichloroethene	0.99	8.7	5.3	47
1,2-Dichloropropane	0.99	Not Detected	4.6	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	0.99	Not Detected	6.6	Not Detected
cis-1,3-Dichloropropene	0.99	Not Detected	4.5	Not Detected
4-Methyl-2-pentanone	0.99	Not Detected	4.0	Not Detected
Toluene	0.99	2.6	3.7	9.8
trans-1,3-Dichloropropene	0.99	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	0.99	Not Detected	5.4	Not Detected
Tetrachloroethene	0.99	110	6.7	760
2-Hexanone	4.0	Not Detected	16	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR5

Lab ID#: 1603595AR1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040614**	**Date of Collection:**	**3/25/16 10:14:00 AM**
Dil. Factor:	**1.98**	**Date of Analysis:**	**4/6/16 04:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.99	Not Detected	8.4	Not Detected
1,2-Dibromoethane (EDB)	0.99	Not Detected	7.6	Not Detected
Chlorobenzene	0.99	Not Detected	4.6	Not Detected
Ethyl Benzene	0.99	Not Detected	4.3	Not Detected
m,p-Xylene	0.99	Not Detected	4.3	Not Detected
o-Xylene	0.99	Not Detected	4.3	Not Detected
Styrene	0.99	Not Detected	4.2	Not Detected
Bromoform	0.99	Not Detected	10	Not Detected
Cumene	0.99	Not Detected	4.9	Not Detected
1,1,2,2-Tetrachloroethane	0.99	Not Detected	6.8	Not Detected
Propylbenzene	0.99	Not Detected	4.9	Not Detected
4-Ethyltoluene	0.99	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	0.99	Not Detected	4.9	Not Detected
1,2,4-Trimethylbenzene	0.99	Not Detected	4.9	Not Detected
1,3-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,4-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
alpha-Chlorotoluene	0.99	Not Detected	5.1	Not Detected
1,2-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	29	Not Detected
Hexachlorobutadiene	4.0	Not Detected	42	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: DUP-1

Lab ID#: 1603595AR1-10A

EPA METHOD TO-15 GC/MS

File Name:	**14040807**	**Date of Collection:**	**3/25/16 1:07:00 PM**
Dil. Factor:	**211**	**Date of Analysis:**	**4/8/16 10:46 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1000	Not Detected	5200	Not Detected
Freon 114	1000	Not Detected	7400	Not Detected
Chloromethane	4200	Not Detected	8700	Not Detected
Vinyl Chloride	1000	Not Detected	2700	Not Detected
1,3-Butadiene	1000	Not Detected	2300	Not Detected
Bromomethane	1000	Not Detected	4100	Not Detected
Chloroethane	4200	Not Detected	11000	Not Detected
Freon 11	1000	Not Detected	5900	Not Detected
Ethanol	4200	Not Detected	8000	Not Detected
Freon 113	1000	Not Detected	8100	Not Detected
1,1-Dichloroethene	1000	Not Detected	4200	Not Detected
Acetone	4200	5200	10000	12000
2-Propanol	4200	130000	10000	320000
Carbon Disulfide	1000	Not Detected	3300	Not Detected
3-Chloropropene	4200	Not Detected	13000	Not Detected
Methylene Chloride	1000	Not Detected	3700	Not Detected
Methyl tert-butyl ether	1000	Not Detected	3800	Not Detected
trans-1,2-Dichloroethene	1000	Not Detected	4200	Not Detected
Hexane	1000	Not Detected	3700	Not Detected
1,1-Dichloroethane	1000	Not Detected	4300	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4200	Not Detected	12000	Not Detected
cis-1,2-Dichloroethene	1000	Not Detected	4200	Not Detected
Tetrahydrofuran	1000	Not Detected	3100	Not Detected
Chloroform	1000	Not Detected	5200	Not Detected
1,1,1-Trichloroethane	1000	Not Detected	5800	Not Detected
Cyclohexane	1000	Not Detected	3600	Not Detected
Carbon Tetrachloride	1000	Not Detected	6600	Not Detected
2,2,4-Trimethylpentane	1000	Not Detected	4900	Not Detected
Benzene	1000	Not Detected	3400	Not Detected
1,2-Dichloroethane	1000	Not Detected	4300	Not Detected
Heptane	1000	Not Detected	4300	Not Detected
Trichloroethene	1000	Not Detected	5700	Not Detected
1,2-Dichloropropane	1000	Not Detected	4900	Not Detected
1,4-Dioxane	4200	Not Detected	15000	Not Detected
Bromodichloromethane	1000	Not Detected	7100	Not Detected
cis-1,3-Dichloropropene	1000	Not Detected	4800	Not Detected
4-Methyl-2-pentanone	1000	Not Detected	4300	Not Detected
Toluene	1000	Not Detected	4000	Not Detected
trans-1,3-Dichloropropene	1000	Not Detected	4800	Not Detected
1,1,2-Trichloroethane	1000	Not Detected	5800	Not Detected
Tetrachloroethene	1000	Not Detected	7200	Not Detected
2-Hexanone	4200	Not Detected	17000	Not Detected

eurofins | Air Toxics

Client Sample ID: DUP-1

Lab ID#: 1603595AR1-10A

EPA METHOD TO-15 GC/MS

File Name:	**14040807**	**Date of Collection: 3/25/16 1:07:00 PM**	
Dil. Factor:	**211**	**Date of Analysis: 4/8/16 10:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1000	Not Detected	9000	Not Detected
1,2-Dibromoethane (EDB)	1000	Not Detected	8100	Not Detected
Chlorobenzene	1000	Not Detected	4800	Not Detected
Ethyl Benzene	1000	Not Detected	4600	Not Detected
m,p-Xylene	1000	Not Detected	4600	Not Detected
o-Xylene	1000	Not Detected	4600	Not Detected
Styrene	1000	Not Detected	4500	Not Detected
Bromoform	1000	Not Detected	11000	Not Detected
Cumene	1000	Not Detected	5200	Not Detected
1,1,2,2-Tetrachloroethane	1000	Not Detected	7200	Not Detected
Propylbenzene	1000	Not Detected	5200	Not Detected
4-Ethyltoluene	1000	Not Detected	5200	Not Detected
1,3,5-Trimethylbenzene	1000	Not Detected	5200	Not Detected
1,2,4-Trimethylbenzene	1000	Not Detected	5200	Not Detected
1,3-Dichlorobenzene	1000	Not Detected	6300	Not Detected
1,4-Dichlorobenzene	1000	Not Detected	6300	Not Detected
alpha-Chlorotoluene	1000	Not Detected	5500	Not Detected
1,2-Dichlorobenzene	1000	Not Detected	6300	Not Detected
1,2,4-Trichlorobenzene	4200	Not Detected	31000	Not Detected
Hexachlorobutadiene	4200	Not Detected	45000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: SVR6B

Lab ID#: 1603595AR1-12A

EPA METHOD TO-15 GC/MS

File Name:	**14040806**	**Date of Collection:**	**3/25/16 2:06:00 PM**
Dil. Factor:	**16.2**	**Date of Analysis:**	**4/8/16 10:14 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	81	Not Detected	400	Not Detected
Freon 114	81	Not Detected	570	Not Detected
Chloromethane	320	Not Detected	670	Not Detected
Vinyl Chloride	81	Not Detected	210	Not Detected
1,3-Butadiene	81	Not Detected	180	Not Detected
Bromomethane	81	Not Detected	310	Not Detected
Chloroethane	320	Not Detected	850	Not Detected
Freon 11	81	Not Detected	460	Not Detected
Ethanol	320	Not Detected	610	Not Detected
Freon 113	81	Not Detected	620	Not Detected
1,1-Dichloroethene	81	Not Detected	320	Not Detected
Acetone	320	450	770	1100
2-Propanol	320	14000	800	33000
Carbon Disulfide	81	Not Detected	250	Not Detected
3-Chloropropene	320	Not Detected	1000	Not Detected
Methylene Chloride	81	Not Detected	280	Not Detected
Methyl tert-butyl ether	81	Not Detected	290	Not Detected
trans-1,2-Dichloroethene	81	Not Detected	320	Not Detected
Hexane	81	Not Detected	280	Not Detected
1,1-Dichloroethane	81	Not Detected	330	Not Detected
2-Butanone (Methyl Ethyl Ketone)	320	Not Detected	960	Not Detected
cis-1,2-Dichloroethene	81	Not Detected	320	Not Detected
Tetrahydrofuran	81	Not Detected	240	Not Detected
Chloroform	81	Not Detected	400	Not Detected
1,1,1-Trichloroethane	81	Not Detected	440	Not Detected
Cyclohexane	81	Not Detected	280	Not Detected
Carbon Tetrachloride	81	Not Detected	510	Not Detected
2,2,4-Trimethylpentane	81	Not Detected	380	Not Detected
Benzene	81	Not Detected	260	Not Detected
1,2-Dichloroethane	81	Not Detected	330	Not Detected
Heptane	81	Not Detected	330	Not Detected
Trichloroethene	81	Not Detected	440	Not Detected
1,2-Dichloropropane	81	Not Detected	370	Not Detected
1,4-Dioxane	320	Not Detected	1200	Not Detected
Bromodichloromethane	81	Not Detected	540	Not Detected
cis-1,3-Dichloropropene	81	Not Detected	370	Not Detected
4-Methyl-2-pentanone	81	Not Detected	330	Not Detected
Toluene	81	Not Detected	300	Not Detected
trans-1,3-Dichloropropene	81	Not Detected	370	Not Detected
1,1,2-Trichloroethane	81	Not Detected	440	Not Detected
Tetrachloroethene	81	Not Detected	550	Not Detected
2-Hexanone	320	Not Detected	1300	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR6B

Lab ID#: 1603595AR1-12A

EPA METHOD TO-15 GC/MS

File Name:	**14040806**	**Date of Collection: 3/25/16 2:06:00 PM**	
Dil. Factor:	**16.2**	**Date of Analysis: 4/8/16 10:14 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	81	Not Detected	690	Not Detected
1,2-Dibromoethane (EDB)	81	Not Detected	620	Not Detected
Chlorobenzene	81	Not Detected	370	Not Detected
Ethyl Benzene	81	Not Detected	350	Not Detected
m,p-Xylene	81	Not Detected	350	Not Detected
o-Xylene	81	Not Detected	350	Not Detected
Styrene	81	Not Detected	340	Not Detected
Bromoform	81	Not Detected	840	Not Detected
Cumene	81	Not Detected	400	Not Detected
1,1,2,2-Tetrachloroethane	81	Not Detected	560	Not Detected
Propylbenzene	81	Not Detected	400	Not Detected
4-Ethyltoluene	81	Not Detected	400	Not Detected
1,3,5-Trimethylbenzene	81	Not Detected	400	Not Detected
1,2,4-Trimethylbenzene	81	Not Detected	400	Not Detected
1,3-Dichlorobenzene	81	Not Detected	490	Not Detected
1,4-Dichlorobenzene	81	Not Detected	490	Not Detected
alpha-Chlorotoluene	81	Not Detected	420	Not Detected
1,2-Dichlorobenzene	81	Not Detected	490	Not Detected
1,2,4-Trichlorobenzene	320	Not Detected	2400	Not Detected
Hexachlorobutadiene	320	Not Detected	3400	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: SVR-7

Lab ID#: 1603595AR1-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040617**	**Date of Collection:**	**3/25/16 11:15:00 AM**
Dil. Factor:	**1.90**	**Date of Analysis:**	**4/6/16 05:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.95	Not Detected	4.7	Not Detected
Freon 114	0.95	Not Detected	6.6	Not Detected
Chloromethane	9.5	Not Detected	20	Not Detected
Vinyl Chloride	0.95	Not Detected	2.4	Not Detected
1,3-Butadiene	0.95	Not Detected	2.1	Not Detected
Bromomethane	9.5	Not Detected	37	Not Detected
Chloroethane	3.8	Not Detected	10	Not Detected
Freon 11	0.95	3.7	5.3	21
Ethanol	3.8	Not Detected	7.2	Not Detected
Freon 113	0.95	Not Detected	7.3	Not Detected
1,1-Dichloroethene	0.95	Not Detected	3.8	Not Detected
Acetone	9.5	Not Detected	22	Not Detected
2-Propanol	3.8	28	9.3	70
Carbon Disulfide	3.8	Not Detected	12	Not Detected
3-Chloropropene	3.8	Not Detected	12	Not Detected
Methylene Chloride	9.5	Not Detected	33	Not Detected
Methyl tert-butyl ether	0.95	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.95	5.5	3.8	22
Hexane	0.95	Not Detected	3.3	Not Detected
1,1-Dichloroethane	0.95	Not Detected	3.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.95	Not Detected	3.8	Not Detected
Tetrahydrofuran	0.95	Not Detected	2.8	Not Detected
Chloroform	0.95	Not Detected	4.6	Not Detected
1,1,1-Trichloroethane	0.95	Not Detected	5.2	Not Detected
Cyclohexane	0.95	Not Detected	3.3	Not Detected
Carbon Tetrachloride	0.95	Not Detected	6.0	Not Detected
2,2,4-Trimethylpentane	0.95	Not Detected	4.4	Not Detected
Benzene	0.95	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.95	Not Detected	3.8	Not Detected
Heptane	0.95	1.2	3.9	4.8
Trichloroethene	0.95	Not Detected	5.1	Not Detected
1,2-Dichloropropane	0.95	Not Detected	4.4	Not Detected
1,4-Dioxane	3.8	Not Detected	14	Not Detected
Bromodichloromethane	0.95	Not Detected	6.4	Not Detected
cis-1,3-Dichloropropene	0.95	Not Detected	4.3	Not Detected
4-Methyl-2-pentanone	0.95	Not Detected	3.9	Not Detected
Toluene	0.95	12	3.6	44
trans-1,3-Dichloropropene	0.95	Not Detected	4.3	Not Detected
1,1,2-Trichloroethane	0.95	Not Detected	5.2	Not Detected
Tetrachloroethene	0.95	Not Detected	6.4	Not Detected
2-Hexanone	3.8	Not Detected	16	Not Detected

eurofins | Air Toxics

Client Sample ID: SVR-7

Lab ID#: 1603595AR1-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040617**	**Date of Collection:**	**3/25/16 11:15:00 AM**
Dil. Factor:	**1.90**	**Date of Analysis:**	**4/6/16 05:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.95	Not Detected	8.1	Not Detected
1,2-Dibromoethane (EDB)	0.95	Not Detected	7.3	Not Detected
Chlorobenzene	0.95	Not Detected	4.4	Not Detected
Ethyl Benzene	0.95	1.1	4.1	4.7
m,p-Xylene	0.95	3.1	4.1	13
o-Xylene	0.95	Not Detected	4.1	Not Detected
Styrene	0.95	Not Detected	4.0	Not Detected
Bromoform	0.95	Not Detected	9.8	Not Detected
Cumene	0.95	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	0.95	Not Detected	6.5	Not Detected
Propylbenzene	0.95	Not Detected	4.7	Not Detected
4-Ethyltoluene	0.95	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	0.95	Not Detected	4.7	Not Detected
1,2,4-Trimethylbenzene	0.95	Not Detected	4.7	Not Detected
1,3-Dichlorobenzene	0.95	Not Detected	5.7	Not Detected
1,4-Dichlorobenzene	0.95	Not Detected	5.7	Not Detected
alpha-Chlorotoluene	0.95	Not Detected	4.9	Not Detected
1,2-Dichlorobenzene	0.95	Not Detected	5.7	Not Detected
1,2,4-Trichlorobenzene	3.8	Not Detected	28	Not Detected
Hexachlorobutadiene	3.8	Not Detected	40	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: SV-12

Lab ID#: 1603595AR1-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040624**	**Date of Collection:**	**3/25/16 5:22:00 PM**
Dil. Factor:	**1.93**	**Date of Analysis:**	**4/6/16 11:18 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.96	3.4	4.8	17
Freon 114	0.96	Not Detected	6.7	Not Detected
Chloromethane	9.6	Not Detected	20	Not Detected
Vinyl Chloride	0.96	Not Detected	2.5	Not Detected
1,3-Butadiene	0.96	Not Detected	2.1	Not Detected
Bromomethane	9.6	Not Detected	37	Not Detected
Chloroethane	3.9	Not Detected	10	Not Detected
Freon 11	0.96	14	5.4	80
Ethanol	3.9	Not Detected	7.3	Not Detected
Freon 113	0.96	Not Detected	7.4	Not Detected
1,1-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Acetone	9.6	Not Detected	23	Not Detected
2-Propanol	3.9	89	9.5	220
Carbon Disulfide	3.9	Not Detected	12	Not Detected
3-Chloropropene	3.9	Not Detected	12	Not Detected
Methylene Chloride	9.6	Not Detected	34	Not Detected
Methyl tert-butyl ether	0.96	Not Detected	3.5	Not Detected
trans-1,2-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Hexane	0.96	Not Detected	3.4	Not Detected
1,1-Dichloroethane	0.96	Not Detected	3.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Tetrahydrofuran	0.96	Not Detected	2.8	Not Detected
Chloroform	0.96	Not Detected	4.7	Not Detected
1,1,1-Trichloroethane	0.96	Not Detected	5.3	Not Detected
Cyclohexane	0.96	1.4	3.3	4.8
Carbon Tetrachloride	0.96	Not Detected	6.1	Not Detected
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.96	Not Detected	3.1	Not Detected
1,2-Dichloroethane	0.96	Not Detected	3.9	Not Detected
Heptane	0.96	1.5	4.0	6.0
Trichloroethene	0.96	Not Detected	5.2	Not Detected
1,2-Dichloropropane	0.96	Not Detected	4.4	Not Detected
1,4-Dioxane	3.9	Not Detected	14	Not Detected
Bromodichloromethane	0.96	Not Detected	6.5	Not Detected
cis-1,3-Dichloropropene	0.96	Not Detected	4.4	Not Detected
4-Methyl-2-pentanone	0.96	Not Detected	4.0	Not Detected
Toluene	0.96	42	3.6	160
trans-1,3-Dichloropropene	0.96	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	0.96	Not Detected	5.3	Not Detected
Tetrachloroethene	0.96	4.0	6.5	27
2-Hexanone	3.9	Not Detected	16	Not Detected

eurofins | Air Toxics

Client Sample ID: SV-12

Lab ID#: 1603595AR1-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040624**	**Date of Collection:**	**3/25/16 5:22:00 PM**
Dil. Factor:	**1.93**	**Date of Analysis:**	**4/6/16 11:18 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.96	Not Detected	8.2	Not Detected
1,2-Dibromoethane (EDB)	0.96	Not Detected	7.4	Not Detected
Chlorobenzene	0.96	Not Detected	4.4	Not Detected
Ethyl Benzene	0.96	Not Detected	4.2	Not Detected
m,p-Xylene	0.96	1.8	4.2	7.9
o-Xylene	0.96	Not Detected	4.2	Not Detected
Styrene	0.96	Not Detected	4.1	Not Detected
Bromoform	0.96	Not Detected	10	Not Detected
Cumene	0.96	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	0.96	Not Detected	6.6	Not Detected
Propylbenzene	0.96	Not Detected	4.7	Not Detected
4-Ethyltoluene	0.96	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,2,4-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,3-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,4-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
alpha-Chlorotoluene	0.96	Not Detected	5.0	Not Detected
1,2-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,2,4-Trichlorobenzene	3.9	Not Detected	29	Not Detected
Hexachlorobutadiene	3.9	Not Detected	41	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: SV-13

Lab ID#: 1603595AR1-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040625**	**Date of Collection: 3/25/16 4:12:00 PM**	
Dil. Factor:	**2.10**	**Date of Analysis: 4/6/16 11:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	5.0	5.2	25
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Freon 11	1.0	12	5.9	67
Ethanol	4.2	Not Detected	7.9	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	25	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	1.0	15	5.1	75
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	3.0	4.0	12
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected

eurofins | Air Toxics

Client Sample ID: SV-13

Lab ID#: 1603595AR1-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040625**	**Date of Collection:**	**3/25/16 4:12:00 PM**
Dil. Factor:	**2.10**	**Date of Analysis:**	**4/6/16 11:44 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
m,p-Xylene	1.0	1.3	4.6	5.6
o-Xylene	1.0	Not Detected	4.6	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: SV-14

Lab ID#: 1603595AR1-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040626**	**Date of Collection:**	**3/25/16 2:47:00 PM**
Dil. Factor:	**2.14**	**Date of Analysis:**	**4/7/16 12:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	2.7	5.3	13
Freon 114	1.1	Not Detected	7.5	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Ethanol	4.3	Not Detected	8.1	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Acetone	11	40	25	94
2-Propanol	4.3	25	10	62
Carbon Disulfide	4.3	Not Detected	13	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	7.9	13	23
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.1	1.5	3.2	4.4
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	1.6	4.4	6.6
Toluene	1.1	21	4.0	79
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected

eurofins | Air Toxics

Client Sample ID: SV-14

Lab ID#: 1603595AR1-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040626**	**Date of Collection:**	**3/25/16 2:47:00 PM**
Dil. Factor:	**2.14**	**Date of Analysis:**	**4/7/16 12:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	2.2	4.6	9.4
m,p-Xylene	1.1	5.2	4.6	23
o-Xylene	1.1	1.4	4.6	6.0
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: SV-15

Lab ID#: 1603595AR1-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040627**	**Date of Collection: 3/25/16 3:38:00 PM**	
Dil. Factor:	**2.13**	**Date of Analysis: 4/7/16 12:37 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	5.5	5.3	27
Freon 114	1.1	Not Detected	7.4	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	11	Not Detected	41	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	5.7	6.0	32
Ethanol	4.3	Not Detected	8.0	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Acetone	11	Not Detected	25	Not Detected
2-Propanol	4.3	7.8	10	19
Carbon Disulfide	4.3	Not Detected	13	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.1	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.7	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Bromodichloromethane	1.1	Not Detected	7.1	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	1.3	4.0	5.0
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected
2-Hexanone	4.3	Not Detected	17	Not Detected

eurofins | Air Toxics

Client Sample ID: SV-15

Lab ID#: 1603595AR1-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040627**	**Date of Collection:**	**3/25/16 3:38:00 PM**
Dil. Factor:	**2.13**	**Date of Analysis:**	**4/7/16 12:37 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Styrene	1.1	Not Detected	4.5	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
Propylbenzene	1.1	Not Detected	5.2	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	45	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: DUP2

Lab ID#: 1603595AR1-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040628**	**Date of Collection: 3/25/16 4:07:00 PM**	
Dil. Factor:	**2.16**	**Date of Analysis: 4/7/16 01:03 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	2.6	5.3	13
Freon 114	1.1	Not Detected	7.6	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	Not Detected	6.1	Not Detected
Ethanol	4.3	Not Detected	8.1	Not Detected
Freon 113	1.1	Not Detected	8.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Acetone	11	33	26	80
2-Propanol	4.3	18	11	45
Carbon Disulfide	4.3	Not Detected	13	Not Detected
3-Chloropropene	4.3	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.9	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	6.1	13	18
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Tetrahydrofuran	1.1	1.3	3.2	3.7
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
1,4-Dioxane	4.3	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	1.1	1.5	4.4	6.2
Toluene	1.1	23	4.1	86
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	Not Detected	7.3	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected

eurofins | Air Toxics

Client Sample ID: DUP2

Lab ID#: 1603595AR1-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040628**	**Date of Collection: 3/25/16 4:07:00 PM**	
Dil. Factor:	**2.16**	**Date of Analysis: 4/7/16 01:03 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.2	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Ethyl Benzene	1.1	2.7	4.7	12
m,p-Xylene	1.1	7.3	4.7	32
o-Xylene	1.1	2.0	4.7	8.5
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.3	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected UJ	10	Not Detected UJ
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040606**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 12:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040606**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 12:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040706**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 12:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040706**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 12:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20D

EPA METHOD TO-15 GC/MS

File Name:	**14040805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 09:49 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603595AR1-20D

EPA METHOD TO-15 GC/MS

File Name:	**14040805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 09:49 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 03:12 PM**	

Compound	%Recovery
Freon 12	92
Freon 114	104
Chloromethane	62 Q
Vinyl Chloride	92
1,3-Butadiene	81
Bromomethane	111
Chloroethane	93
Freon 11	96
Ethanol	88
Freon 113	101
1,1-Dichloroethene	89
Acetone	106
2-Propanol	81
Carbon Disulfide	94
3-Chloropropene	91
Methylene Chloride	88
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	92
Hexane	84
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	94
Tetrahydrofuran	84
Chloroform	92
1,1,1-Trichloroethane	92
Cyclohexane	89
Carbon Tetrachloride	98
2,2,4-Trimethylpentane	85
Benzene	95
1,2-Dichloroethane	94
Heptane	90
Trichloroethene	95
1,2-Dichloropropane	92
1,4-Dioxane	92
Bromodichloromethane	97
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	81
Toluene	97
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	96
Tetrachloroethene	106
2-Hexanone	74

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 03:12 PM**	

Compound	%Recovery
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	98
Chlorobenzene	101
Ethyl Benzene	98
m,p-Xylene	98
o-Xylene	97
Styrene	85
Bromoform	109
Cumene	98
1,1,2,2-Tetrachloroethane	94
Propylbenzene	96
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	90
1,2-Dichlorobenzene	105
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	112

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 10:27 AM**	

Compound	%Recovery
Freon 12	87
Freon 114	99
Chloromethane	80
Vinyl Chloride	87
1,3-Butadiene	76
Bromomethane	108
Chloroethane	87
Freon 11	91
Ethanol	78
Freon 113	99
1,1-Dichloroethene	84
Acetone	82
2-Propanol	78
Carbon Disulfide	87
3-Chloropropene	85
Methylene Chloride	79
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	88
Hexane	82
1,1-Dichloroethane	82
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	87
Tetrahydrofuran	81
Chloroform	86
1,1,1-Trichloroethane	88
Cyclohexane	86
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	84
Benzene	92
1,2-Dichloroethane	88
Heptane	89
Trichloroethene	91
1,2-Dichloropropane	87
1,4-Dioxane	94
Bromodichloromethane	90
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	87
Toluene	95
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	93
Tetrachloroethene	106
2-Hexanone	86

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 10:27 AM**	

Compound	%Recovery
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	96
Chlorobenzene	100
Ethyl Benzene	98
m,p-Xylene	99
o-Xylene	97
Styrene	97
Bromoform	109
Cumene	98
1,1,2,2-Tetrachloroethane	93
Propylbenzene	97
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	95
1,2-Dichlorobenzene	103
1,2,4-Trichlorobenzene	83
Hexachlorobutadiene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 10:08 AM**	

Compound	%Recovery
Freon 12	83
Freon 114	97
Chloromethane	78
Vinyl Chloride	83
1,3-Butadiene	73
Bromomethane	104
Chloroethane	82
Freon 11	85
Ethanol	73
Freon 113	93
1,1-Dichloroethene	81
Acetone	77
2-Propanol	72
Carbon Disulfide	84
3-Chloropropene	81
Methylene Chloride	74
Methyl tert-butyl ether	81
trans-1,2-Dichloroethene	86
Hexane	78
1,1-Dichloroethane	79
2-Butanone (Methyl Ethyl Ketone)	85
cis-1,2-Dichloroethene	87
Tetrahydrofuran	76
Chloroform	84
1,1,1-Trichloroethane	84
Cyclohexane	84
Carbon Tetrachloride	92
2,2,4-Trimethylpentane	81
Benzene	93
1,2-Dichloroethane	83
Heptane	90
Trichloroethene	93
1,2-Dichloropropane	89
1,4-Dioxane	97
Bromodichloromethane	91
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	89
Toluene	99
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	91
Tetrachloroethene	107
2-Hexanone	83

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 10:08 AM**	

Compound	%Recovery
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	95
Chlorobenzene	99
Ethyl Benzene	98
m,p-Xylene	98
o-Xylene	98
Styrene	96
Bromoform	108
Cumene	98
1,1,2,2-Tetrachloroethane	90
Propylbenzene	94
4-Ethyltoluene	99
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21D

EPA METHOD TO-15 GC/MS

File Name:	**14040802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 08:32 AM**	

Compound	%Recovery
Freon 12	112
Freon 114	117
Chloromethane	105
Vinyl Chloride	102
1,3-Butadiene	101
Bromomethane	92
Chloroethane	115
Freon 11	120
Ethanol	120
Freon 113	113
1,1-Dichloroethene	107
Acetone	118
2-Propanol	110
Carbon Disulfide	105
3-Chloropropene	98
Methylene Chloride	104
Methyl tert-butyl ether	120
trans-1,2-Dichloroethene	110
Hexane	111
1,1-Dichloroethane	114
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	108
Tetrahydrofuran	109
Chloroform	113
1,1,1-Trichloroethane	120
Cyclohexane	104
Carbon Tetrachloride	126
2,2,4-Trimethylpentane	110
Benzene	111
1,2-Dichloroethane	115
Heptane	110
Trichloroethene	98
1,2-Dichloropropane	112
1,4-Dioxane	108
Bromodichloromethane	115
cis-1,3-Dichloropropene	115
4-Methyl-2-pentanone	118
Toluene	105
trans-1,3-Dichloropropene	127
1,1,2-Trichloroethane	107
Tetrachloroethene	114
2-Hexanone	111

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1603595AR1-21D

EPA METHOD TO-15 GC/MS

File Name:	**14040802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 08:32 AM**	

Compound	%Recovery
Dibromochloromethane	116
1,2-Dibromoethane (EDB)	116
Chlorobenzene	108
Ethyl Benzene	114
m,p-Xylene	114
o-Xylene	112
Styrene	116
Bromoform	125
Cumene	119
1,1,2,2-Tetrachloroethane	120
Propylbenzene	113
4-Ethyltoluene	115
1,3,5-Trimethylbenzene	120
1,2,4-Trimethylbenzene	116
1,3-Dichlorobenzene	113
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	129
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	113

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 03:39 PM**	

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	110	70-130
Chloromethane	69 Q	70-130
Vinyl Chloride	93	70-130
1,3-Butadiene	79	70-130
Bromomethane	111	70-130
Chloroethane	93	70-130
Freon 11	98	70-130
Ethanol	87	70-130
Freon 113	97	70-130
1,1-Dichloroethene	90	70-130
Acetone	88	70-130
2-Propanol	85	70-130
Carbon Disulfide	80	70-130
3-Chloropropene	84	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	83	70-130
1,1-Dichloroethane	86	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	89	70-130
Tetrahydrofuran	82	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	90	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	84	70-130
Benzene	93	70-130
1,2-Dichloroethane	91	70-130
Heptane	89	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	89	70-130
4-Methyl-2-pentanone	87	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	105	70-130
2-Hexanone	86	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 03:39 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	98	70-130
o-Xylene	99	70-130
Styrene	92	70-130
Bromoform	111	70-130
Cumene	98	70-130
1,1,2,2-Tetrachloroethane	80	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	103	70-130
alpha-Chlorotoluene	99	70-130
1,2-Dichlorobenzene	104	70-130
1,2,4-Trichlorobenzene	101	70-130
Hexachlorobutadiene	110	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 04:05 PM**	

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	111	70-130
Chloromethane	69 Q	70-130
Vinyl Chloride	93	70-130
1,3-Butadiene	80	70-130
Bromomethane	112	70-130
Chloroethane	97	70-130
Freon 11	98	70-130
Ethanol	87	70-130
Freon 113	100	70-130
1,1-Dichloroethene	90	70-130
Acetone	90	70-130
2-Propanol	84	70-130
Carbon Disulfide	81	70-130
3-Chloropropene	83	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	84	70-130
1,1-Dichloroethane	86	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	82	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	85	70-130
Benzene	94	70-130
1,2-Dichloroethane	92	70-130
Heptane	91	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	89	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	108	70-130
2-Hexanone	88	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/16 04:05 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	99	70-130
o-Xylene	100	70-130
Styrene	94	70-130
Bromoform	112	70-130
Cumene	99	70-130
1,1,2,2-Tetrachloroethane	81	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	99	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	113	70-130
Hexachlorobutadiene	120	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 10:53 AM**	

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	108	70-130
Chloromethane	63 Q	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	76	70-130
Bromomethane	102	70-130
Chloroethane	92	70-130
Freon 11	98	70-130
Ethanol	83	70-130
Freon 113	98	70-130
1,1-Dichloroethene	89	70-130
Acetone	84	70-130
2-Propanol	80	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	83	70-130
Methylene Chloride	81	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	92	70-130
Hexane	80	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	89	70-130
Tetrahydrofuran	80	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	90	70-130
Cyclohexane	88	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	83	70-130
Benzene	92	70-130
1,2-Dichloroethane	90	70-130
Heptane	89	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	87	70-130
4-Methyl-2-pentanone	87	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	106	70-130
2-Hexanone	85	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 10:53 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	98	70-130
o-Xylene	98	70-130
Styrene	92	70-130
Bromoform	112	70-130
Cumene	98	70-130
1,1,2,2-Tetrachloroethane	79	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	101	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	103	70-130
alpha-Chlorotoluene	96	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	99	70-130
Hexachlorobutadiene	111	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	81	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 11:20 AM**	

Compound	%Recovery	Method Limits
Freon 12	92	70-130
Freon 114	109	70-130
Chloromethane	62 Q	70-130
Vinyl Chloride	91	70-130
1,3-Butadiene	77	70-130
Bromomethane	104	70-130
Chloroethane	91	70-130
Freon 11	96	70-130
Ethanol	86	70-130
Freon 113	98	70-130
1,1-Dichloroethene	88	70-130
Acetone	85	70-130
2-Propanol	80	70-130
Carbon Disulfide	78	70-130
3-Chloropropene	81	70-130
Methylene Chloride	80	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	81	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	78	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	90	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	82	70-130
Benzene	94	70-130
1,2-Dichloroethane	89	70-130
Heptane	89	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	95	70-130
cis-1,3-Dichloropropene	88	70-130
4-Methyl-2-pentanone	87	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	107	70-130
2-Hexanone	86	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/6/16 11:20 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	99	70-130
o-Xylene	100	70-130
Styrene	93	70-130
Bromoform	112	70-130
Cumene	99	70-130
1,1,2,2-Tetrachloroethane	80	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	97	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	116	70-130
Hexachlorobutadiene	122	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 10:35 AM**	

Compound	%Recovery	Method Limits
Freon 12	89	70-130
Freon 114	112	70-130
Chloromethane	66 Q	70-130
Vinyl Chloride	90	70-130
1,3-Butadiene	76	70-130
Bromomethane	101	70-130
Chloroethane	90	70-130
Freon 11	93	70-130
Ethanol	80	70-130
Freon 113	99	70-130
1,1-Dichloroethene	88	70-130
Acetone	82	70-130
2-Propanol	75	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	81	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	80	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	78	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	89	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	84	70-130
Benzene	93	70-130
1,2-Dichloroethane	86	70-130
Heptane	89	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	95	70-130
cis-1,3-Dichloropropene	89	70-130
4-Methyl-2-pentanone	87	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	109	70-130
2-Hexanone	84	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 10:35 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	99	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	100	70-130
o-Xylene	100	70-130
Styrene	94	70-130
Bromoform	114	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	79	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	107	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	97	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	104	70-130
Hexachlorobutadiene	116	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 11:01 AM**	

Compound	%Recovery	Method Limits
Freon 12	88	70-130
Freon 114	109	70-130
Chloromethane	63 Q	70-130
Vinyl Chloride	90	70-130
1,3-Butadiene	75	70-130
Bromomethane	100	70-130
Chloroethane	90	70-130
Freon 11	92	70-130
Ethanol	80	70-130
Freon 113	99	70-130
1,1-Dichloroethene	88	70-130
Acetone	80	70-130
2-Propanol	73	70-130
Carbon Disulfide	78	70-130
3-Chloropropene	80	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	92	70-130
Hexane	79	70-130
1,1-Dichloroethane	82	70-130
2-Butanone (Methyl Ethyl Ketone)	89	70-130
cis-1,2-Dichloroethene	89	70-130
Tetrahydrofuran	78	70-130
Chloroform	88	70-130
1,1,1-Trichloroethane	89	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	92	70-130
2,2,4-Trimethylpentane	83	70-130
Benzene	93	70-130
1,2-Dichloroethane	85	70-130
Heptane	88	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	89	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	110	70-130
2-Hexanone	84	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17040704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/7/16 11:01 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	100	70-130
o-Xylene	101	70-130
Styrene	94	70-130
Bromoform	114	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	80	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	109	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	110	70-130
1,2,4-Trichlorobenzene	119	70-130
Hexachlorobutadiene	129	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	77	70-130
4-Bromofluorobenzene	113	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22D

EPA METHOD TO-15 GC/MS

File Name:	**14040803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 08:54 AM**	

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	97	70-130
Chloromethane	78	70-130
Vinyl Chloride	79	70-130
1,3-Butadiene	77	70-130
Bromomethane	79	70-130
Chloroethane	92	70-130
Freon 11	102	70-130
Ethanol	60 Q	70-130
Freon 113	94	70-130
1,1-Dichloroethene	87	70-130
Acetone	90	70-130
2-Propanol	86	70-130
Carbon Disulfide	75	70-130
3-Chloropropene	86	70-130
Methylene Chloride	83	70-130
Methyl tert-butyl ether	80	70-130
trans-1,2-Dichloroethene	91	70-130
Hexane	88	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	83	70-130
cis-1,2-Dichloroethene	84	70-130
Tetrahydrofuran	84	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	90	70-130
Benzene	89	70-130
1,2-Dichloroethane	96	70-130
Heptane	82	70-130
Trichloroethene	84	70-130
1,2-Dichloropropane	87	70-130
1,4-Dioxane	85	70-130
Bromodichloromethane	97	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	87	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	94	70-130
2-Hexanone	84	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1603595AR1-22D

EPA METHOD TO-15 GC/MS

File Name:	**14040803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 08:54 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	89	70-130
m,p-Xylene	91	70-130
o-Xylene	91	70-130
Styrene	96	70-130
Bromoform	102	70-130
Cumene	94	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	92	70-130
4-Ethyltoluene	95	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	92	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	92	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	90	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	112	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22DD

EPA METHOD TO-15 GC/MS

File Name:	**14040804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 09:18 AM**	

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	100	70-130
Chloromethane	80	70-130
Vinyl Chloride	86	70-130
1,3-Butadiene	81	70-130
Bromomethane	82	70-130
Chloroethane	99	70-130
Freon 11	107	70-130
Ethanol	63 Q	70-130
Freon 113	97	70-130
1,1-Dichloroethene	87	70-130
Acetone	99	70-130
2-Propanol	91	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	87	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	82	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	92	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	91	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	82	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	109	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	93	70-130
1,2-Dichloroethane	100	70-130
Heptane	87	70-130
Trichloroethene	89	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	89	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	99	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	100	70-130
2-Hexanone	87	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603595AR1-22DD

EPA METHOD TO-15 GC/MS

File Name:	**14040804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/8/16 09:18 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	97	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	93	70-130
Ethyl Benzene	88	70-130
m,p-Xylene	88	70-130
o-Xylene	96	70-130
Styrene	98	70-130
Bromoform	105	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Propylbenzene	95	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	92	70-130
alpha-Chlorotoluene	123	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	101	70-130
Hexachlorobutadiene	117	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130