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Technical Memorandum

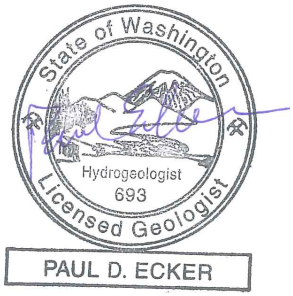
Status Report – SVE Monitoring (First Quarter 2017)

To: Jonathan Polonsky and Brent Chadwick, Plaid Pantries, Inc.

From: Paul Ecker LHG, and Chris Rhea, LG

Date: May 16, 2017

Regarding: Plaid Pantry Store #112
1002 West Fourth Plain Boulevard
Vancouver, WA
Ecology VCP Site ID SW1314
UST Facility ID 9158935
EES Project 1179-02



This memorandum provides a summary of soil vapor extraction (SVE) monitoring results and performance through March 2017 for the Plaid Pantries, Inc. (Plaid) convenience market and retail fueling station #112, located at 1002 West Fourth Plain Boulevard in Vancouver, Washington (Figure 1). Plaid operates an SVE system at the subject Property as an interim action to mitigate gasoline impacts associated with prior Site operations (EES, 12/27/2013). Figure 2 illustrates Property features.

SVE OPERATION

The SVE system includes application of vacuum to five well locations in a known gasoline release area near the southern Property margin. The SVE system has operated without major problems since full-time system startup in September 2013. EES turned the SVE system off temporarily between December 2015 and March 2016, in order to evaluate perched groundwater conditions observed during routine monitoring (EES, 3/30/2016). SVE operations were resumed on March 16, 2016, and with minor short-term exceptions the system has operated continuously since then. Monitoring data collected through March 21, 2017 is summarized below and on Figures 3 and 4, and presented on the attached data tables.

WELL INFRASTRUCTURE

Site well infrastructure consists of five active SVE treatment wells (SVE-1 through SVE-5), and seven monitoring wells (B-17, B-18, and S-27 through S-31). The two-inch diameter SVE and related monitoring wells are screened among vadose-zone soils in distinct intervals. Well construction details were documented in prior status reports and are available on request.

Note that seasonally perched groundwater is periodically observed during system operations, primarily during winter conditions at well SVE-5. However, the local water table has not been encountered during site drilling activities to date, and is not anticipated within 60 to 100 feet of the site ground surface.

AIR FLOW

Since January 2016, the system has produced between approximately 88 and 112 cubic feet per minute (CFM) of air flow from the subsurface (see Table 1, "AWS Inlet"). The major source of air flow is obtained from wells SVE-2 and SVE-4 which are screened between 15 and 20 feet depth in relatively coarse-grained soils (sand/gravel), each with typical extraction flow rates of approximately 30 to 50 CFM. In comparison, flow rates from the three shallow extraction wells (screened in fine-grained soils between 5 and 10 feet depth) are all individually around 5 to 10 CFM.

OBSERVED RADIUS OF INFLUENCE

On January 30, 2017, EES collected air flow, vacuum, and vapor headspace concentration field measurements at select site monitoring wells to evaluate the SVE system's radius of influence (ROI) and overall performance. Findings are summarized below and on Table 2:

- Well B-17 (located in the public sidewalk south of the subject Property) is influenced by the SVE system based on induced vacuum and air flow observed at that location during active SVE operations.
- Lesser effects are observed at wells B-18 and S-30, and these two wells typically appear to define the perimeter of the SVE well array's radius of influence.
- Although slight vacuum influence is periodically observed at other site monitoring wells (S-27, S-28, S-29, or S-31), these wells typically do not exhibit clear indications of SVE influence on a consistent basis. All but one (S-31) of these apparently unaffected wells are screened in shallow utility trench areas.

The continued ROI tests confirm that the system's zone of shallow vapor extraction influence generally covers the area of known gasoline soil impacts at the Property (Figure 3), with consistent measurable influence extending to off-Property sidewalk well B-17. The radius of influence for each SVE well is estimated at approximately 6 to 10 feet.

BIOGENIC DEGRADATION OF GASOLINE

In order to help evaluate naturally-occurring conditions which may indicate biological degradation of subsurface gasoline vapors, EES field-measured common biodegradation parameters (oxygen, carbon dioxide, and methane) and volatile chemical concentrations at all site wells on January 30, 2017. Generalized findings are as follows, and summarized on Table 2:

- Aerobic conditions (19-21% oxygen) were observed at SVE-1 through SVE-5 at the system manifold, indicating the remedial system is replenishing oxygen to the subsurface and enhancing conditions consistent with biodegradation of contaminants.
- The effects of active SVE are evident at treatment zone monitoring well B-17, where vacuum influence is measured. This well is screened in the interval between five and 10

feet depth, which is in contact with the pocket of residual soil contamination beneath the sidewalk. Data collected at well B-17 between March and October 2016 demonstrated decreases in methane (ranging from 1.3 to 0.0%) and carbon dioxide levels (ranging from 9.5 to 4.0%), and greatly reduced PID concentrations (ranging from 1,469 to 2.6 ppmv), with increases in overall oxygen (ranging from 15.4 to 5.4%). These observed levels represent suitable soil vapor conditions for promoting aerobic degradation of gasoline. However, in January 2017, methane (2.3%), carbon dioxide (13.2%), oxygen (0.5%), and PID (840 ppmv) levels were more indicative of anaerobic conditions. Based on these monitoring data, it appears well B-17 is on the perimeter of SVE influence with fluctuating effects of contaminant degradation. The cause for rebound in biodegradation parameter levels may be related to seasonal wet weather conditions limiting soil permeability and air flow, and will continue to be monitored.

- At other perimeter well locations B-18, S-27, S-28, S-30, and S-31, aerobic subsurface conditions (approximately 19-21%) were observed during this monitoring event. Such high oxygen levels likely indicate aerobic conditions expected to deplete or eliminate contaminant mass at these locations.
- Consistent conditions at shallow trench backfill well S-29 are unique at this site and indicate a reductive setting that may not support effective biogenic degradation, including measurable methane (0.2 to 1.2%) and substantially depleted oxygen. Limited 2016-2017 data at this location will be supplemented in the future.

Soil vapor biodegradation parameters will continue to be measured at the site well network during future quarterly monitoring activities.

CONTAMINANT CONCENTRATIONS AND MASS REMOVAL

Vapor samples collected from active SVE wells were analyzed to evaluate contaminant mass removal trends and to evaluate compliance with regulatory criteria for ongoing air discharges. Findings are summarized below, presented in Tables 3 and 4, and illustrated in Figure 4 and Charts 1 through 4. A copy of the laboratory analytical report for this monitoring period is presented in Attachment A.

- Within the SVE treatment zone, gasoline and related constituent vapors continue to be removed from the subsurface at concentrations indicating generally diminishing residual impacts and mass removal rates (Table 3, Figure 4, Charts 1 through 3). Although short-term elevated (rebounding) gasoline vapor conditions were observed as expected following the four-month SVE shutdown (November 2015 – March 2016), observations during the January 2017 monitoring event and the supplemental March 2017 sampling event were generally consistent with longer-term gasoline treatment trends over the past three years (Charts 1 through 3).
- During the January 2017 event, gasoline and/or related vapor constituents were detected at four of the five wells. No gasoline constituents were detected at well SVE-2. Gasoline was detected at an elevated concentration of 3,100,000 micrograms per cubic meter (ug/m^3) at SVE-1, which is unusually high compared to 2014-2016 trends (Table 3, Chart 1). Gasoline vapor concentrations measured at nearby wells SVE-4 and SVE-5 were slightly elevated, but at much lower concentrations compared to SVE-1 and within the range of variability observed during the past several years. Lower vapor concentrations were

observed at SVE-2 and SVE-3, and volatile constituents such as benzene were not identified. Due to the relatively high gasoline vapor concentration at this location, SVE-1 and the SVE Blower Inlet (system total) were resampled in March 2017. Gasoline was not detected in these two samples collected in March 2017 (Table 3). The elevated gasoline concentration at SVE-1 in January 2017 appears to have been a localized and short-term anomaly and not indicative of a discernable new release.

- Initial gasoline mass extraction rates at SVE startup in August 2013 were estimated at 1.4 pounds per day, and decreased to approximately 0.3 pounds per day by November 2013. Since then, gasoline mass extraction rates have fluctuated but generally decreased, and were calculated to be approximately 0.15 pounds per day based on the January 2017 monitoring results. The removal rate increased since October 2016, but has been generally consistent since mid-2015. From June 2015 through January 2017 approximately 20 pounds of gasoline mass were removed by SVE from the subsurface. Cumulative removal of gasoline range hydrocarbons through January 30, 2017 is estimated to be 168 pounds, or approximately 28 gallons (Table 4, Chart 3). Chart 3 illustrates these gasoline mass removal trends.
- Non-gasoline chlorinated solvent vapors, primarily tetrachloroethylene (PCE), continue to be removed from the subsurface during SVE operations (Table 3, Figure 4, Chart 4). Total PCE concentrations in SVE system exhaust are measured quarterly for regional air discharge compliance purposes. Since April 2016, overall higher levels of PCE have been observed in system exhausts compared to prior years. PCE in the system exhaust was detected in January 2017 at a concentration of 600 ug/m^3. This concentration exceeds Ecology's default regulatory soil gas screening level of 321 ug/m^3, but is far below air emissions permit thresholds and will continue to be monitored.
- PCE mass extraction rates are very low but have varied since system startup in 2013. PCE extraction rates have remained elevated since July 2016 compared to prior monitoring events but diminished between October 2016 and January 2017 (approximately 0.010 pounds per day PCE based on January 2017 data). Cumulative PCE mass removal between 2013 startup and January 30, 2017 is estimated to be 6.4 pounds, approximately half of which was accumulated during 2016 (Table 4, Chart 4).
- Per Southwest Washington Clean Air Agency (SWCAA) approval, SVE exhaust treatment controls were discontinued on March 28, 2014 due to low total emissions. Extracted VOC concentrations indicate SVE emissions remain in compliance with agency requirements for untreated exhausts. Both PCE and gasoline-related vapor emissions are far below the maximum allowable discharge limits (500 and 2,000 pounds/year, respectively) and exhaust treatment is not currently required by SWCAA based solely on gasoline/BTEX and PCE vapor exhausts (Table 4).

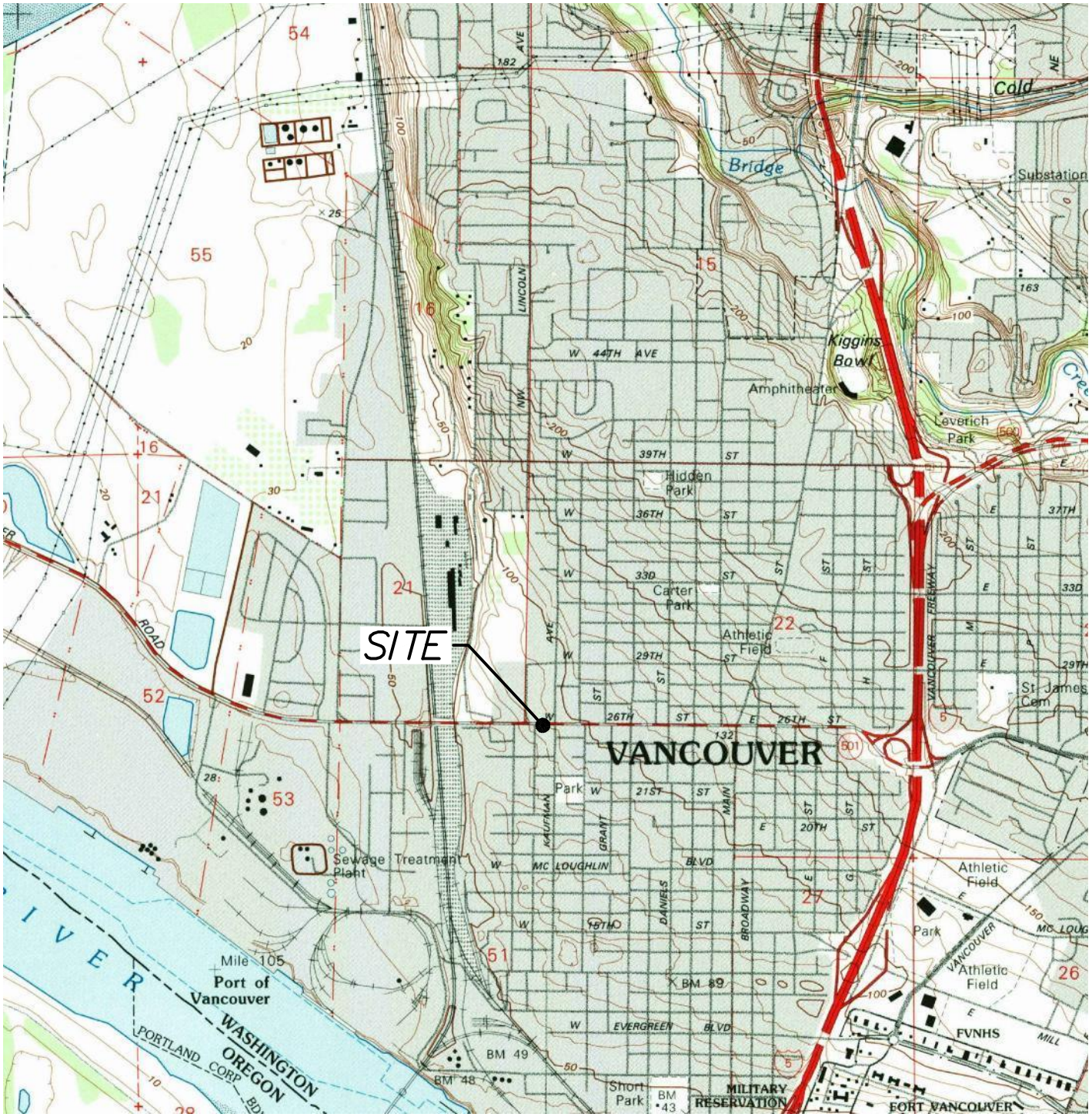
Routine SVE system monitoring and reporting is ongoing, with quarterly vapor sampling events scheduled for January, April, July, and October while the system is in operation.

Note that gasoline impacts in soil extend beyond Property boundaries to the south under the right-of-way, outside of the influence of the current SVE system. Regulatory requirements and potential response actions for the right-of-way area are under evaluation.

ATTACHMENTS

Figures	Figure 1: Vicinity Map Figure 2: Site Features Figure 3: Inferred Zone of Vacuum Influence Figure 4: Contaminated Vapor Concentrations during SVE Operations
Tables	Table 1: Soil Vapor Extraction Monitoring Data Table 2: Soil Vapor Extraction Radius of Influence Data Table 3: Soil Vapor Analytical Results – Volatile Organic Compounds Table 4: Soil Vapor Extraction Mass Removal
Charts	Chart 1: Gasoline Vapor Concentrations during SVE Operations Chart 2: Benzene Vapor Concentrations during SVE Operations Chart 3: Gasoline Mass Extraction Rates and Cumulative Mass Removal Chart 4: PCE Mass Extraction Rates and Cumulative Mass Removal
Attachments	Attachment A: Laboratory Analytical Data

Figures



SOURCE:
USGS, VANCOUVER QUADRANGLE
WASHINGTON–OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)

N

APPROXIMATE SCALE IN FEET

0 1000 2000 4000

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VICINITY MAP

PLAID PANTRY #112
1002 W. FOURTH PLAIN BLVD.
VANCOUVER, WA.

DATE:	7–14–15	PROJECT NO.
FILE:	1179–02	1179–02
DRAWN:	JJT	FIGURE NO.
APPROVED:	AG	1

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LEGEND

Property Boundary

Catch Basin

Dry Well

SITE FEATURES ARE APPROXIMATE.

APPROXIMATE SCALE IN FEET

0 10 20 40

N

Domino's Pizza

Plaid Pantry

Sidewalk

Sidewalk

Kauffman Ave.

Canopy/Pump Island

Sign

Existing UST Locations

Sidewalk

West Fourth Plain Blvd.

DATE:	7-30-15
FILE:	1179-01
DRAWN:	JJT
APPROVED:	AG
PROJECT NO.	1179-01
FIGURE NO.	2

SITE FEATURES

PLAID PANTRY #112
1002 W. FOURTH PLAIN BLVD.
VANCOUVER, WA.

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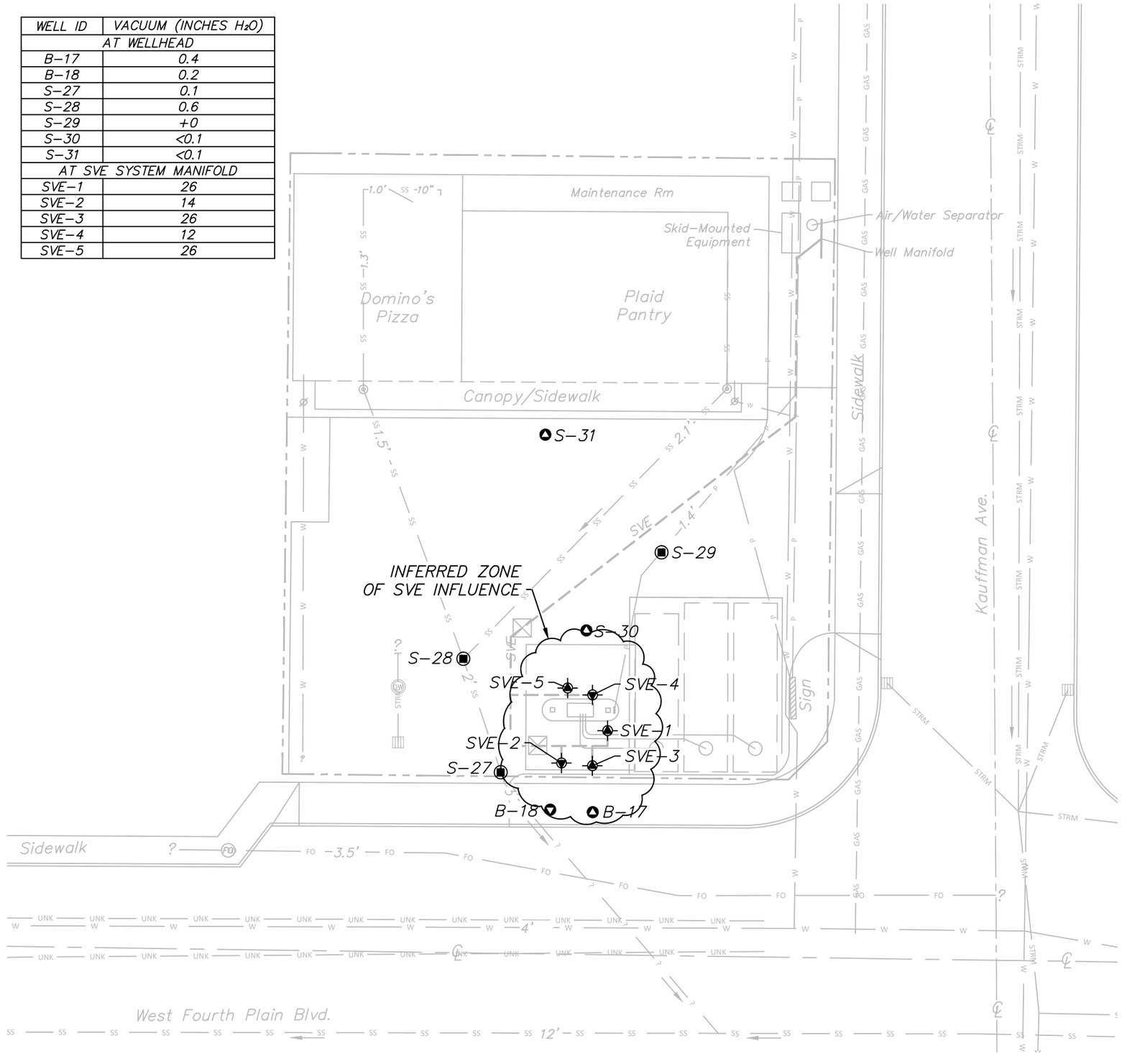
LEGEND

- Property Boundary
- Roadway Centerline
- Catch Basin
- Dry Well
- Vault
- SVE–1 — Shallow SVE Well (Screened 5–10' bgs)
- SVE–2 — Deep SVE Well (Screened 15–20' bgs)
- S–28 — Utility Vapor Monitoring Well (Screened at Various Shallow Depths in Trench Backfill)
- B–17 — Shallow Vapor Monitoring Well (Screened 5–10' bgs)
- B–18 — Deep Vapor Monitoring Well (Screened 15–20' bgs)
- SVE — SVE Piping
- W — Water Line
- SS — Sanitary Sewer & Flow Direction
- STRM — Storm Sewer & Flow Direction
- P — Power
- GAS — Natural Gas
- UNK — Unknown Utility
- FO — Fiber Optic
- Arrows Indicate Flow Direction Where Known

Approximate Utility Depths Indicated Where Known (Feet)

SITE FEATURES ARE APPROXIMATE.

WELL ID	VACUUM (INCHES H_2O)
AT WELLHEAD	
B–17	0.4
B–18	0.2
S–27	0.1
S–28	0.6
S–29	+0
S–30	<0.1
S–31	<0.1
AT SVE SYSTEM MANIFOLD	
SVE–1	26
SVE–2	14
SVE–3	26
SVE–4	12
SVE–5	26



APPROXIMATE SCALE IN FEET

0 10 20 40

N

INFERRED SVE RADIUS OF INFLUENCE (1/30/2017)

DATE:	4–26–17
FILE:	1179–02
DRAWN:	JJT
APPROVED:	DBP
PROJECT NO.	1179–02
FIGURE NO.	3

PLAID PANTRY #112
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LEGEND

- Property Boundary
- Catch Basin
- Dry Well
- Bollards
- Vault
- SVE-1 — Shallow SVE test well (screened 5–10' bgs)
- SVE-2 — Deep SVE test well (screened 15–20' bgs)
- Fiber Optic Manhole
- Water Valves
- Signal Control
- Sanitary Sewer
- Storm
- Water
- Fiber Optic
- Power
- SVE Piping

G = Gasoline

B = Benzene

PCE = Tetrachloroethylene

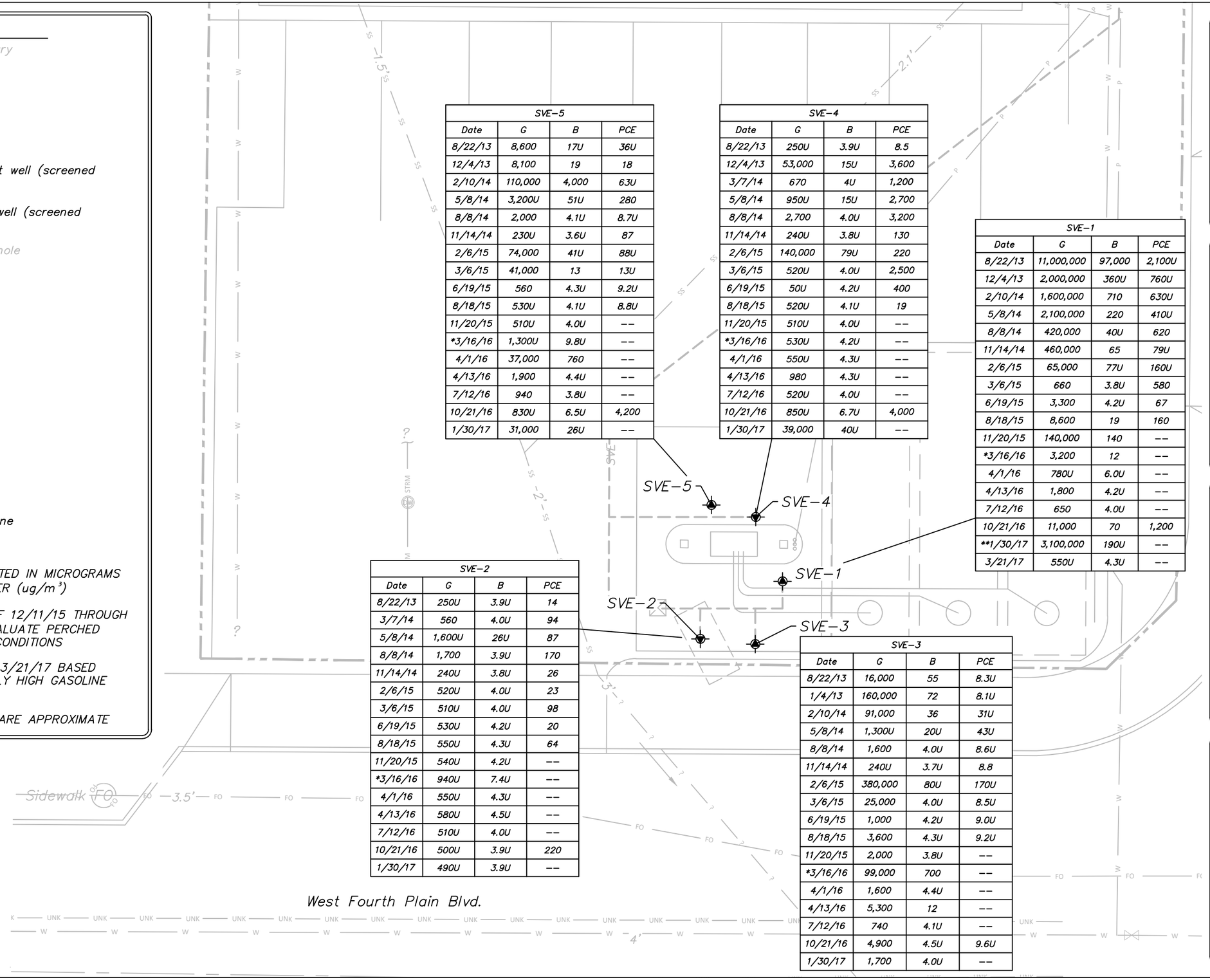
-- = Not Analyzed

RESULTS REPORTED IN MICROGRAMS PER CUBIC METER (ug/m³)

* = SVE SYSTEM OFF 12/11/15 THROUGH 3/16/16 TO EVALUATE PERCHED GROUNDWATER CONDITIONS

** = RESAMPLED ON 3/21/17 BASED ON ANOMALOUSLY HIGH GASOLINE DETECTION

SITE FEATURES ARE APPROXIMATE



SVE-5			
Date	G	B	PCE
8/22/13	8,600	17U	36U
12/4/13	8,100	19	18
2/10/14	110,000	4,000	63U
5/8/14	3,200U	51U	280
8/8/14	2,000	4.1U	8.7U
11/14/14	230U	3.6U	87
2/6/15	74,000	41U	88U
3/6/15	41,000	13	13U
6/19/15	560	4.3U	9.2U
8/18/15	530U	4.1U	8.8U
11/20/15	510U	4.0U	--
*3/16/16	1,300U	9.8U	--
4/1/16	37,000	760	--
4/13/16	1,900	4.4U	--
7/12/16	940	3.8U	--
10/21/16	830U	6.5U	4,200
1/30/17	31,000	26U	--

SVE-4			
Date	G	B	PCE
8/22/13	250U	3.9U	8.5
12/4/13	53,000	15U	3,600
3/7/14	670	4U	1,200
5/8/14	950U	15U	2,700
8/8/14	2,700	4.0U	3,200
11/14/14	240U	3.8U	130
2/6/15	140,000	79U	220
3/6/15	520U	4.0U	2,500
6/19/15	50U	4.2U	400
8/18/15	520U	4.1U	19
11/20/15	510U	4.0U	--
*3/16/16	530U	4.2U	--
4/1/16	550U	4.3U	--
4/13/16	980	4.3U	--
7/12/16	520U	4.0U	--
10/21/16	850U	6.7U	4,000
1/30/17	39,000	40U	--

SVE-1			
Date	G	B	PCE
8/22/13	11,000,000	97,000	2,100U
12/4/13	2,000,000	360U	760U
2/10/14	1,600,000	710	630U
5/8/14	2,100,000	220	410U
8/8/14	420,000	40U	620
11/14/14	460,000	65	79U
2/6/15	65,000	77U	160U
3/6/15	660	3.8U	580
6/19/15	3,300	4.2U	67
8/18/15	8,600	19	160
11/20/15	140,000	140	--
*3/16/16	3,200	12	--
4/1/16	780U	6.0U	--
4/13/16	1,800	4.2U	--
7/12/16	650	4.0U	--
10/21/16	11,000	70	1,200
**1/30/17	3,100,000	190U	--
3/21/17	550U	4.3U	--

SVE-2			
Date	G	B	PCE
8/22/13	250U	3.9U	14
3/7/14	560	4.0U	94
5/8/14	1,600U	26U	87
8/8/14	1,700	3.9U	170
11/14/14	240U	3.8U	26
2/6/15	520U	4.0U	23
3/6/15	510U	4.0U	98
6/19/15	530U	4.2U	20
8/18/15	550U	4.3U	64
11/20/15	540U	4.2U	--
*3/16/16	940U	7.4U	--
4/1/16	550U	4.3U	--
4/13/16	580U	4.5U	--
7/12/16	510U	4.0U	--
10/21/16	500U	3.9U	220
1/30/17	490U	3.9U	--

SVE-3			
Date	G	B	PCE
8/22/13	16,000	55	8.3U
1/4/13	160,000	72	8.1U
2/10/14	91,000	36	31U
5/8/14	1,300U	20U	43U
8/8/14	1,600	4.0U	8.6U
11/14/14	240U	3.7U	8.8
2/6/15	380,000	80U	170U
3/6/15	25,000	4.0U	8.5U
6/19/15	1,000	4.2U	9.0U
8/18/15	3,600	4.3U	9.2U
11/20/15	2,000	3.8U	--
*3/16/16	99,000	700	--
4/1/16	1,600	4.4U	--
4/13/16	5,300	12	--
7/12/16	740	4.1U	--
10/21/16	4,900	4.5U	9.6U
1/30/17	1,700	4.0U	--

PROJECT NO. 1179-02 | FIGURE NO. 4

DATE: 4-26-17 | DRAWN: JJT

FILE: 1179-02 | APPROVED: DBP

CONTAMINANT VAPOR CONCENTRATIONS DURING SVE OPERATIONS (THROUGH 3/21/17)

PLAID PANTRY #112
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VANCOUVER, WA.

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Tables

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-1	2013 Q3 Avg.	-	22	1,129	637	8
	2013 Q4 Avg.	-	41	205	1,099	9
	2014 Q1 Avg.	-	35	180	919	11
	2014 Q2 Avg.	-	26	101	807	9
	2014 Q3 Avg.	-	23	56	1,079	11
	2014 Q4 Avg.	-	25	17	933	11
	2015 Q1 Avg.	-	28	1.4	779	7
	2015 Q2 Avg.	-	25	5.8	813	8
	2015 Q3 Avg.	-	21	5.7	881	10
	2015 Q4 Avg.	-	21	2.9	816	10
	2016 Q1 Avg.	-	23	1.1	627	-
	04/01/2016	Yes	24	1.4	520	8
	04/08/2016	-	21	24	556	5
	04/13/2016	Yes	22	1.6	634	9
	05/13/2016	-	21	6.5	674	7
	06/10/2016	-	21	1.2	646	7
	06/24/2016	-	20	9.0	534	6
	07/12/2016	Yes	20	19	467	6
	08/02/2016	-	18	3.2	423	6
	09/02/2016	-	17	3.6	460	8
	09/15/2016	-	18	3.5	592	6
	09/23/2016	-	19	3.0	608	9
	10/21/2016	Yes	20	1.9	841	11
	12/30/2016	-	27	9.7	966	8
	01/30/2017	Yes	26	35	971	9
	02/27/2017	-	26	8.6	861	9
	03/10/2017	-	-	6.6	-	-
	03/17/2017	-	-	2.6	-	-
	03/21/2017	Yes	27	7.1	974	10
SVE-2	2013 Q3 Avg.	-	7	4.0	2,470	29
	2013 Q4 Avg.	-	9	3.9	3,043	32
	2014 Q1 Avg.	-	8	20	1,597	15
	2014 Q2 Avg.	-	12	6.5	2,664	29
	2014 Q3 Avg.	-	9	1.2	3,046	32
	2014 Q4 Avg.	-	11	0.8	2,414	31
	2015 Q1 Avg.	-	12	0.1	3,500	32
	2015 Q2 Avg.	-	9	0.5	3,272	35
	2015 Q3 Avg.	-	8	0.5	2,886	33
	2015 Q4 Avg.	-	9	0.6	2,562	32
	2016 Q1 Avg.	-	11	0.8	3,025	-
	04/01/2016	Yes	13	1.0	2,627	40
	04/08/2016	-	9	6.2	4,513	42
	04/13/2016	Yes	9	1.2	3,388	48
	05/13/2016	-	8	7.2	4,520	44
	06/10/2016	-	9	2.5	3,357	39
	06/24/2016	-	8	3.8	3,583	40
	07/12/2016	Yes	9	17	3,309	43
	08/02/2016	-	7	3.3	2,718	41
	09/02/2016	-	7	1.2	2,109	37
	09/15/2016	-	7	2.8	3,543	36
	09/23/2016	-	7	2.9	2,534	39
	10/21/2016	Yes	9	1.4	2,819	36
	12/30/2016	-	12	7.4	3,740	32

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-2 (cont'd)	01/30/2017	Yes	14	3.2	3,421	32
	02/27/2017	-	15	5.3	3,202	35
	03/10/2017	-	-	5.2	-	-
	03/17/2017	-	-	1.9	-	-
	03/21/2017	-	12	6.5	2,915	29
SVE-3	2013 Q3 Avg.	-	22	27	732	9
	2013 Q4 Avg.	-	39	11	1,077	9
	2014 Q1 Avg.	-	36	18	1,107	9
	2014 Q2 Avg.	-	26	6.1	808	8
	2014 Q3 Avg.	-	23	1.2	890	9
	2014 Q4 Avg.	-	26	3.7	951	11
	2015 Q1 Avg.	-	28	3.0	769	7
	2015 Q2 Avg.	-	24	1.6	763	8
	2015 Q3 Avg.	-	21	1.5	746	9
	2015 Q4 Avg.	-	21	0.8	588	7
	2016 Q1 Avg.	-	23	8	607	-
	04/01/2016	Yes	23	2.3	465	7
	04/08/2016	-	21	674	540	5
	04/13/2016	Yes	22	3.6	519	7
	05/13/2016	-	21	8.1	550	5
	06/10/2016	-	21	2.6	606	7
	06/24/2016	-	20	12	530	6
	07/12/2016	Yes	20	17	475	6
	08/02/2016	-	18	3.1	462	7
	09/02/2016	-	17	1.4	453	8
	09/15/2016	-	19	4.2	503	5
	09/23/2016	-	20	3.2	421	7
	10/21/2016	Yes	21	5.2	733	9
	12/30/2016	-	27	9.8	870	8
	01/30/2017	Yes	26	2.0	872	8
	02/27/2017	-	26	7.4	880	9
	03/10/2017	-	-	5.7	-	-
	03/17/2017	-	-	2.3	-	-
	03/21/2017	-	27	8.7	826	8
SVE-4	2013 Q3 Avg.	-	8	4.1	2,767	33
	2013 Q4 Avg.	-	13	9.0	2,743	27
	2014 Q1 Avg.	-	15	8.9	3,382	32
	2014 Q2 Avg.	-	15	5.1	3,525	40
	2014 Q3 Avg.	-	9	1.4	2,940	29
	2014 Q4 Avg.	-	11	2.9	2,489	32
	2015 Q1 Avg.	-	12	3.4	3,833	35
	2015 Q2 Avg.	-	9	1.1	3,254	33
	2015 Q3 Avg.	-	8	1.8	3,116	36
	2015 Q4 Avg.	-	9	1.1	3,187	39
	2016 Q1 Avg.	-	13	1.1	3,583	-
	04/01/2016	Yes	15	1.8	2,531	39
	04/08/2016	-	12	8.3	3,324	31
	04/13/2016	Yes	9	1.7	2,816	40
	05/13/2016	-	8	7.2	5,136	50
	06/10/2016	-	8	3.5	3,219	37
	06/24/2016	-	8	6.2	3,382	38
	07/12/2016	Yes	8	17	2,747	36
	08/02/2016	-	10	4.7	2,920	44

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-4 (cont'd)	09/02/2016	-	9	3.1	2,447	43
	09/15/2016	-	7	6.1	3,418	35
	09/23/2016	-	7	4.8	2,216	35
	10/21/2016	Yes	8	2.4	2,605	33
	12/30/2016	-	11	8.5	3,853	33
	01/30/2017	Yes	12	2.8	3,427	32
	02/27/2017	-	12	13	3,085	33
	03/10/2017	-	-	6.2	-	-
	03/17/2017	-	-	2.6	-	-
	03/21/2017	-	15	7.4	3,393	33
SVE-5	2013 Q3 Avg.	-	22	6.9	674	8
	2013 Q4 Avg.	-	39	10	1,079	9
	2014 Q1 Avg.	-	35	18	889	7
	2014 Q2 Avg.	-	26	7.8	790	9
	2014 Q3 Avg.	-	23	1.2	886	9
	2014 Q4 Avg.	-	25	2.7	766	9
	2015 Q1 Avg.	-	28	2.8	862	8
	2015 Q2 Avg.	-	24	0.6	812	8
	2015 Q3 Avg.	-	21	0.6	895	10
	2015 Q4 Avg.	-	21	3.9	559	7
	2016 Q1 Avg.	-	23	1.1	515	-
	04/01/2016	Yes	24	1.9	667	10
	04/08/2016	-	20	13	520	5
	04/13/2016	Yes	22	1.9	569	8
	05/13/2016	-	20	5.8	529	5
	06/10/2016	-	21	1.7	531	6
	06/24/2016	-	20	5.1	520	6
	07/12/2016	Yes	20	15	434	6
	08/02/2016	-	17	38	428	6
	09/02/2016	-	17	1.2	415	7
	09/15/2016	-	19	2.8	524	5
	09/23/2016	-	19	2.8	430	7
	10/21/2016	Yes	20	0.2	575	7
	12/30/2016	-	27	8.7	873	8
	01/30/2017	Yes	26	2.4	784	7
	02/27/2017	-	26	13	982	11
	03/10/2017	-	-	4.2	-	-
	03/17/2017	-	-	2.3	-	-
	03/21/2017	-	27	7.5	930	9
AWS Inlet	2013 Q3 Avg.	-	23	-	-	86
	2013 Q4 Avg.	-	42	-	-	65
	2014 Q1 Avg.	-	34	-	-	58
	2014 Q2 Avg.	-	27	-	-	87
	2014 Q3 Avg.	-	25	-	-	89
	2014 Q4 Avg.	-	26	-	-	93
	2015 Q1 Avg.	-	29	-	-	88
	2015 Q2 Avg.	-	26	-	-	91
	2015 Q3 Avg.	-	21	-	-	98
	2015 Q4 Avg.	-	22	-	-	95
	2016 Q1 Avg.	-	22	-	-	-
	04/01/2016	-	23	-	-	105
	04/08/2016	-	22	-	-	88

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
AWS Inlet (cont'd)	04/13/2016	-	23	-	-	112
	05/13/2016	-	21	-	-	110
	06/10/2016	-	22	-	-	96
	06/24/2016	-	21	-	-	96
	07/12/2016	-	21	-	-	96
	08/02/2016	-	19	-	-	104
	09/02/2016	-	18	-	-	104
	09/15/2016	-	20	-	-	88
	09/23/2016	-	20	-	-	97
	10/21/2016	-	22	-	-	97
	12/30/2016	-	28	-	-	89
	01/30/2017	-	26	-	-	89
	02/27/2017	-	26	-	-	97
	03/21/2017	-	28	-	-	89
SVE Blower Inlet	2013 Q3 Avg.	-	24	37	1,744	80
	2013 Q4 Avg.	-	43	21	1,643	76
	2014 Q1 Avg.	-	35	10	1,686	79
	2014 Q2 Avg.	-	28	3.6	1,918	88
	2014 Q3 Avg.	-	25	3.3	1,777	82
	2014 Q4 Avg.	-	27	1.7	1,874	86
	2015 Q1 Avg.	-	30	1.4	2,353	108
	2015 Q2 Avg.	-	27	0.6	2,203	101
	2015 Q3 Avg.	-	23	1.8	2,380	109
	2015 Q4 Avg.	-	22	0.9	2,223	102
	2016 Q1 Avg.	-	24	1.4	1,983	91
	04/01/2016	-	26	2.2	2,436	112
	04/08/2016	-	23	107	3,420	157
	04/13/2016	Yes	24	1.5	1,259	58
	05/13/2016	-	22	5.4	3,014	139
	06/10/2016	-	23	2.1	1,828	84
	06/24/2016	-	22	4.2	1,805	83
	07/12/2016	Yes	22	3.2	1,837	85
	08/02/2016	-	20	6.9	1,905	88
	09/02/2016	-	19	1.0	2,048	94
	09/15/2016	-	21	4.4	1,978	91
	09/23/2016	-	22	3.0	1,862	86
	10/21/2016	Yes	22	1.2	2,632	121
	12/30/2016	-	28	8.1	2,672	123
	01/30/2017	Yes	27	2.6	2,135	98
	02/27/2017	-	28	8.2	1,961	90
	03/10/2017	-	-	4.2	-	-
	03/17/2017	-	-	2.4	-	-
	03/21/2017	Yes	29	7.2	1,813	83
SVE Blower Outlet[c]	2013 Q3 Avg.	-	-	76	-	-
	2013 Q4 Avg.	-	-	24	-	-
	2014 Q1 Avg.	-	9.3	25	-	-
	2014 Q2 Avg.	-	0.4	4.5	-	-
	2014 Q3 Avg.	-	0.3	6.0	-	-
	2014 Q4 Avg.	-	0.4	4.2	-	-
	2015 Q1 Avg.	-	0.3	1.9	-	-
	2015 Q2 Avg.	-	0.3	0.7	-	-
	2015 Q3 Avg.	-	0.4	2.0	-	-
	2015 Q4 Avg.	-	0.4	1.7	-	-

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE Blower Outlet	2016 Q1 Avg.	-	0.2	2.9	-	-
(cont'd)	04/01/2016	-	0.5	1.4	-	-
	04/08/2016	-	0.5	110	-	-
	04/13/2016	-	0.4	1.2	-	-
	05/13/2016	-	0.6	4.2	-	-
	06/10/2016	-	0.5	1.3	-	-
	06/24/2016	-	0.5	3.8	-	-
	07/12/2016	-	0.5	2.4	-	-
	08/02/2016	-	0.5	5.4	-	-
	09/02/2016	-	0.5	1.2	-	-
	09/15/2016	-	0.5	3.7	-	-
	09/23/2016	-	0.5	2.8	-	-
	10/21/2016	-	0.5	1.3	-	-
	12/30/2016	-	0.5	5.9	-	-
	01/30/2017	-	0.4	6.9	-	-
	02/27/2017	-	0.5	8.1	-	-
	03/10/2017	-	-	4.2	-	-
	03/17/2017	-	-	2.0	-	-
	03/21/2017	-	0.4	8.0	-	-
GAC #2	2013 Q3 Avg.	-	-	0.0	-	-
	2013 Q4 Avg.	-	-	0.9	-	-
	2014 Q1 Avg.	-	-	2.9	-	-
	2014 Q2 Avg.	-	-	1.4	-	-
Post GAC	2013 Q3 Avg.	-	-	0.0	-	-
	2013 Q4 Avg.	-	-	0.0	-	-
	2014 Q1 Avg.	-	0.2	1.4	-	-
	2014 Q2 Avg.	-	0.1	2.5	-	-
	2014 Q3 Avg.	-	0.1	5.2	-	-
	2014 Q4 Avg.	-	0.1	-	-	-
	2015 Q1 Avg.	-	0.1	-	-	-

TABLE 1

Soil Vapor Extraction Monitoring Data

Plaid Pantry No. 112

Vancouver, Washington

Notes:

[a] Measured at SVE system manifold.

[b] Air flow calculated at individual well laterals (SVE-1 through -5), and measured at AWS Inlet (system total) using a dedicated pitot tube. Individual well air flow calculations corrected to reflect proportional contribution to the system total.

[c] Values in the vacuum column are positive pressure at the SVE Blower Outlet (inches H_2O).

Avg. = average

AWS = air/water separator

scfm = standard cubic feet per minute

cont'd = continued

fpm = feet per minute

ppmv = parts per million vapor

- = Not measured

GAC = Granular activated carbon

TABLE 2
Soil Vapor Extraction Radius of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[b]	PID (ppmv)[a]	CH_4 (%)[a]	CO_2 (%)[a]	O_2 (%)[a]
B-17	11/20/2015	0.30	-	-	-	-	-
	11/23/2015	0.22	No	123	-	-	-
	11/24/2015	*0.02*	-	*307*	-	-	-
	12/11/2015	0.21	-	1,210	-	-	-
	03/16/2016	*0.00*	-	*287*	-	-	-
	03/16/2016[1]	0.01	-	1,469	1.3	7.1	8.2
	03/16/2016[2]	0.03	-	359	0.6	9.5	5.4
	03/22/2016	1.5	-	-	-	-	-
	03/28/2016	0.25	-	-	-	-	-
	04/01/2016	0.24	No	315	0.3	4.0	15.4
	04/08/2016	0.24	-	-	-	-	-
	04/13/2016	0.25	-	-	-	-	-
	05/13/2016	0.30	Yes	-	-	-	-
	07/12/2016	0.21	Yes	2.6	0.0	4.6	15.3
	10/21/2016	0.30	Yes	305	0.2	8.8	9.7
	01/30/2017	0.40	Yes	840	2.3	13.2	0.5
B-18	11/20/2015	0.05	-	-	-	-	-
	11/23/2015	0.08	No	28	-	-	-
	11/24/2015	*0.00*	-	*0.6*	-	-	-
	12/11/2015	0.03	-	0.9	-	-	-
	03/16/2016	*0.00*	-	*1.3*	-	-	-
	03/16/2016[1]	0.02	-	1.4	0.1	0.9	20.1
	03/16/2016[2]	+0.04	-	1.5	0.1	1.6	19.3
	03/22/2016	0.09	-	-	-	-	-
	03/28/2016	0.07	-	-	-	-	-
	04/01/2016	0.06	No	1.3	0.0	1.7	18.8
	04/08/2016	0.05	-	-	-	-	-
	04/13/2016	0.06	-	-	-	-	-
	05/13/2016	0.08	No	-	-	-	-
	07/12/2016	0.07	-	2.7	0.0	2.0	18.4
	10/21/2016	0.18	No	0.9	0.0	2.2	18.4
	01/30/2017	0.20	Yes	6.9	0.0	0.6	20.1
S-27	11/20/2015	0.02	-	-	-	-	-
	11/23/2015	0.01	No	5.5	-	-	-
	11/24/2015	*0.00*	-	*0.8*	-	-	-
	12/11/2015	0.10	-	0.5	-	-	-
	03/16/2016	*0.00*	-	*1.3*	-	-	-
	03/16/2016[1]	0.00	-	1.4	0.0	0.5	19.8
	03/16/2016[2]	0.00	-	1.9	0.1	0.9	18.9
	03/22/2016	0.02	-	-	-	-	-
	03/28/2016	0.02	-	-	-	-	-
	04/01/2016	0.02	No	0.9	0.0	0.2	20.7
	04/08/2016	0.02		-	-	-	-
	05/13/2016	0.05	No	-	-	-	-
	07/12/2016	0.03	-	2.3	0.0	0.1	20.3
	10/21/2016	0.05	-	0.8	0.0	0.2	20.6
	01/30/2017	0.10	No	7.5	0.0	0.1	20.8
S-28	11/20/2015	0.03	-	-	-	-	-
	11/23/2015	0.00	No	0.8	-	-	-
	11/24/2015	*+0.75*	-	*1.0*	-	-	-
	12/11/2015	3.40	-	-	-	-	-
	03/16/2016	*+0.04*	-	-	-	-	-

TABLE 2
Soil Vapor Extraction Radius of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[b]	PID (ppmv)[a]	CH_4 (%)[a]	CO_2 (%)[a]	O_2 (%)[a]
S-28 (cont'd)	05/13/2016	0+	-	-	-	-	-
	07/12/2016	0.00	-	3.3	0.0	1.7	17.8
	10/21/2016	0.04	-	0.9	0.0	1.0	17.6
	01/30/2017	0.60	No	6.4	0.0	0.6	18.4
S-29	11/20/2015	0.02	-	-	-	-	-
	11/23/2015	0.00	No	2.6	-	-	-
	11/24/2015	*0.00*	-	*1.0*	-	-	-
	12/11/2015	0.09	-	0.4	-	-	-
	03/16/2016	*0.02*	-	-	-	-	-
	05/13/2016	0.00	No	-	-	-	-
	07/12/2016	0.10	No	3.7	1.2	0.0	1.2
	10/21/2016	0.20	No	1.5	0.2	0.0	0.0
	01/30/2017	0+	-	16	0.4	0.0	0.8
S-30	11/20/2015	0.00	-	-	-	-	-
	11/23/2015	0.00	No	1.0	-	-	-
	11/24/2015	*0.02*	-	*0.8*	-	-	-
	12/11/2015	0.08	-	0.5	-	-	-
	03/16/2016	*0.00*	-	-	-	-	-
	04/01/2016	0.05	No	1.0	0.0	1.2	20.2
	04/08/2016	0.08	-	-	-	-	-
	04/13/2016	0.06	-	-	-	-	-
	05/13/2016	0.06	No	-	-	-	-
	07/12/2016	0.06	-	4.0	0.0	1.1	19.2
	10/21/2016	0.05	-	2.8	0.0	0.8	19.6
	01/30/2017	0.08	-	5.7	0.0	0.5	20.3
S-31	11/20/2015	0.02	-	-	-	-	-
	11/23/2015	0.03	No	3.6	-	-	-
	11/24/2015	*0.00*	-	*0.9*	-	-	-
	12/11/2015	0.05	-	0.5	-	-	-
	03/16/2016	*0.04*	-	-	-	-	-
	05/13/2016	0.00	No	-	-	-	-
	07/12/2016	0.06	-	5.3	0.0	1.2	19.3
	10/21/2016	0.01	-	2.6	0.0	1.3	19.7
	01/30/2017	0.03	-	4.8	0.0	0.8	19.9
SVE-1	11/23/2015	20	Yes	2.8	-	-	-
	07/12/2016	19	Yes	19[c]	0.0[c]	1.0[c]	19.7[c]
	10/21/2016	19	Yes	1.9[c]	0.0[c]	0.1[c]	20.5[c]
	01/30/2017	26	Yes	35[c]	0.5[c]	0.2[c]	20.4[c]
SVE-2	11/23/2015	4.0	Yes	1.9	-	-	-
	07/12/2016	1.2	Yes	17[c]	0.0[c]	1.7[c]	19.3[c]
	10/21/2016	1.5	Yes	1.4[c]	0.0[c]	0.3[c]	20.5[c]
	01/30/2017	2.0	Yes	3.2[c]	0.0[c]	0.3[c]	20.5[c]
SVE-3	11/23/2015	21	Yes	2.8	-	-	-
	07/12/2016	19	Yes	17[c]	0.0[c]	0.3[c]	20.5[c]
	10/21/2016	16	Yes	5.2[c]	0.0[c]	0.5[c]	19.9[c]
	01/30/2017	25	Yes	2.0[c]	0.0[c]	0.1[c]	20.8[c]
SVE-4	11/23/2015	1.8	Yes	0.9	-	-	-
	07/12/2016	1.5	Yes	17[c]	0.0[c]	1.3[c]	19.4[c]
	10/21/2016	1.8	Yes	2.4[c]	0.0[c]	0.3[c]	20.3[c]
	01/30/2017	2.0	Yes	2.8[c]	0.0[c]	0.3[c]	20.5[c]

TABLE 2
Soil Vapor Extraction Radius of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[b]	PID (ppmv)[a]	CH_4 (%)[a]	CO_2 (%)[a]	O_2 (%)[a]
SVE-5	11/23/2015	6	Yes	0.8	-	-	-
	07/12/2016	20	Yes	15[c]	0.0[c]	0.1[c]	20.5[c]
	10/21/2016	10	Yes	1.7[c]	0.0[c]	0.2[c]	20.2[c]
	01/30/2017	20	Yes	2.4[c]	0.0[c]	0.2[c]	20.6[c]

Notes:

[a] Vacuum, PID and Biodegradation parameters measured at wellhead unless otherwise indicated.

[b] Qualitative field observation based on relative deflation rate of a 1-liter tedlar bag.

[c] Measured at SVE system manifold.

[1] Measurements taken while only SVE-2 open at SVE manifold.

[2] Measurements taken while only SVE-3 open at SVE manifold.

Italics indicate the measurements were taken while the SVE system was off.

ppmv = Parts per million vapor

- = Not measured

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			NA	10.7/32.1	76,200/229,000	15,200/45,700	1,520/4,570[2]	1,520/4,570	0.139/0.417	3.21/9.62	321/962	2.45/7.35	321/962	12.3/37	NA	13.9/41.7	76,200/229,000
August 2012 Soil Vapor Sampling																	
S-1	08/14/2012	5	-	6.1	50	9.6	37	12	*1.3 U*	0.68 U	0.60 U	**4.4**	3.7	0.90 U	30	3.8	0.92 U
S-2	08/15/2012	5	-	8.7	72	31	120	43	*1.2 U*	0.65 U	0.58 U	**4.4**	32	0.86 U	52	10	0.88 U
S-3	08/15/2012	5	-	3.8	18	2.6	8.2	3.3	*1.2 U*	0.62 U	0.55 U	**4.4**	28	0.82 U	16	8.4	0.83 U
S-4	08/14/2012	5	-	10	130	49	180	66	*1.2 U*	0.63 U	0.56 U	**6.2**	2.5	0.83 U	38	0.98 U	0.84 U
S-5/SVE-3	08/17/2012	5-10	-	**82,000**	**860,000**	**210,000**	**900,000**	**340,000**	*2,000 U*	*1,100 U*	*950 U*	*5,500 U*	**2,200**	*1,400 U*	3,100 U	*1,600 U*	1,400 U
S-6	08/14/2012	5	-	2.9	11	2.0	6.6	2.6	*1.4 U*	0.74 U	0.66 U	*4.8 U*	1.7	0.98 U	33	1.2 U	1.0 U
S-7	08/16/2012	5	-	7.7	14	3.1	9.0	5.0	*1.3 U*	0.71 U	0.63 U	**19**	2.0	0.94 U	32	1.1 U	0.95 U
S-8/SVE-5	08/17/2012	5-10	-	**7,900**	**220,000**	**86,000**	**340,000**	**160,000**	*1,000 U*	*530 U*	*470 U*	**7,700**	**2,500**	*710 U*	1,600 U	*830 U*	720 U
S-9	08/15/2012	5	-	2.1	8.1	1.7	6.0	2.5	*1.3 U*	0.66 U	0.59 U	*4.3 U*	6.8	0.88 U	16	1.2	0.89 U
S-10	08/14/2012	5	-	1.7	7.0	1.8	7.1	2.6	*1.1 U*	0.59 U	0.53 U	**6.4**	22	0.78 U	19	0.92 U	0.80 U
S-11	08/14/2012	15	-	1.3	9.7	2.2	6.6	2.1	*1.3 U*	0.69 U	0.62 U	4.5 U	100	0.92 U	12	3.5	1.1
S-12/SVE-2	08/20/2012	15-20	-	**3,900**	22,000	1,400	**25,000**	**17,000**	*120 U*	*65 U*	75	*340 U*	130	17 U	47 U	20 U	17 U
S-13	08/15/2012	15	-	1.1	11	0.71	3.1	1.2	*1.2 U*	0.65 U	0.58 U	4.2 U	230	0.86 U	5.9	**52**	0.88 U
SVE-4	08/17/2012	15-20	-	**560**	12,000	4,800	**22,000**	**9,300**	*130 U*	*66 U*	59 U	**620**	170	*88 U*	190 U	*100 U*	89 U
October 2012 SVE Pilot Test																	
SVE-1 START	10/04/2012	5-10	59,000,000	**240,000**	**2,100,000**	**200,000**	**1,100,000**	**380,000**	*14,000 U*	*7,300 U*	*6,500 U*	-	*12,000 U*	*9,700 U*	21,000 U	*11,000 U*	9,800 U
SVE-1 STOP	10/04/2012	5-10	74,000,000	**330,000**	**3,400,000**	**490,000**	**2,800,000**	**1,000,000**	*19,000 U*	*10,000 U*	*8,900 U*	-	*17,000 U*	*13,000 U*	29,000 U	*16,000 U*	13,000 U
SVE-2 START	10/05/2012	5-10	20,000	**50**	1,100	230	1,200	460	*91 U*	*48 U*	43 U	-	120	*64 U*	140 U	*75 U*	65 U
SVE-2 STOP	10/05/2012	5-10	42,000	**36**	1,300	410	**3,000**	1,200	*18 U*	*9.3 U*	8.3 U	-	130	12 U	27 U	**18**	12 U
SVE System Monitoring																	
SVE-1	08/22/2013	5-10	11,000,000	**97,000**	**350,000**	15,000	**82,000**	**25,000**	*2,400 U*	*1,200 U*	*1,100 U*	-	*2,100 U*	*1,600 U*	6,900	*1,900 U*	1,700 U
	12/04/2013	5-10	2,000,000	*360 U*	2,000	2,200	**62,000**	**31,000**	*860 U*	*450 U*	*400 U*	-	*760 U*	*600 U*	1,300 U	*700 U*	610 U
	02/10/2014	5-10	1,600,000	**710**	3,300	3,600	**38,000**	**15,000**	*710 U*	*370 U*	*330 U*	-	*630 U*	*500 U*	1,100 U	*580 U*	500 U
	05/08/2014	5-10	2,100,000	**220**	1,100	3,400	**60,000**	**34,000**	*460 U*	*240 U*	220 U	-	*410 U*	*320 U*	710 U	*380 U*	330 U
	08/08/2014	5-10	420,000	*40 U*	96	77	**3,700**	**3,300**	*95 U*	*50 U*	45 U	-	**620**	**73**	150 U	*78 U*	68 U
	11/14/2014	5-10	460,000 [a]	**65**	44 U	50 U	50 U	50 U	*90 U*	*47 U*	42 U	-	79 U	*63 U*	140 U	*73 U*	64 U
	02/06/2015	5-10	65,000	*77 U*	91 U	100 U	100 U	100 U	*190 U*	*98 U*	87 U	*510 U*	160 U	*130 U*	290 U	*150 U*	130 U
	03/06/2015	5-10	660	3.8 U	13	5.2	11	5.2 U	*9.2 U*	*4.8 U*	4.3 U	*25 U*	**580**	6.4 U	14 U	7.6 U	6.5 U
	06/19/2015	5-10	3,300	4.2 U	8.0	5.8 U	5.8 U	5.8 U	*10 U*	*5.4 U*	4.8 U	*14 U*	67	7.1 U	17	8.3 U	7.2 U
	08/18/2015	5-10	8,600	**19**	71	6.8	27	11	*10 U*	*5.5 U*	4.9 U	*14 U*	160	7.3 U	24	8.6 U	7.4 U
	11/20/2015	5-10	140,000	**140**	100 U	120 U	120 U	120 U	-	-	-	*570 U*	-	-	-	-	-
	03/16/2016	5-10	3,200	**12**	14 U	16 U	16 U	16 U	-	-	-	*39 U*	-	-	-	-	-
	04/01/2016	5-10	780 U	6.0 U	7.1 U	8.2 U	8.2 U	8.2 U	-	-	-	*40 U*	-	-	-	-	-
	04/13/2016	5-10	1,800	4.2 U	5.0 U	5.7 U	5.7 U	5.7 U	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	5-10	650	4.0 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	5-10	11,000	**70**	140	13	28	22	-	-	-	*27 U*	**1,200**	-	-	-	-
	01/30/2017	5-10	3,100,000 [a]	*190 U*	230 U	260 U	260 U	260 U	-	-	-	*1,300 U*	-	-	-	-	-
	03/21/2017	5-10	550 U	4.3 UJ	37 J	5.8 U	7.2	5.8 U	-	-	-	*14 U*	-	-	-	-	-
SVE-2	08/22/2013	15-20	250 U	3.9 U	4.6 U	5.3 U	5.3 U	5.3 U	*9.4 U*	5.0 U	4.4 U	-	14	6.6 U	290	7.7 U	6.7 U
	03/07/2014	15-20	560	4.0 U	4.7 U	5.4 U	5.6	5.4 U	*9.6 U*	5.1 U	4.5 U	-	94	6.7 U	86	7.9 U	6.8 U
	05/08/2014	15-20	1,600 U	26 U	30 U	35 U	35 U	35 U	*62 U*	*32 U*	29 U	-	87	*43 U*	95 U	*51 U*	44 U
	08/08/2014	15-20	1,700	3.9 U	17	5.3 U	16	6.6	*9.3 U*	4.9 U	4.4 U	-	170	20	28	7.6 U	6.6 U
	11/14/2014	15-20	240 U	3.8 U	4.5 U	5.2 U	6.7	5.2 U	*9.1 U*	4.8 U	4.3 U	-	26	6.4 U	14	7.5 U	6.5 U
	02/06/2015	15-20	520 U	4.0 U	4.8	5.5 U	5.5 U	5.5 U	*9.7 U*	5.1 U	4.5 U	*26 U*	23	6.8 U	15 U	7.9 U	6.9 U
	03/06/2015	15-20	510 U	4.0 U	4.8	5.4 U	5.9	5.4 U	*9.6 U*	5.0 U	4.5 U	*26 U*	98	6.7 U	15 U	7.9 U	6.8 U
	06/19/2015	15-20	530 U	4.2 U	4.9 U	5.6 U	5.6 U	5.6 U	*10 U*	5.3 U	4.7 U	*14 U*	20	7.0 U	15 U	8.2 U	7.1 U
	08/18/2015	15-20	550 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	*10 U*	5.5 U	4.9 U	*14 U*	64	7.2 U	16 U	8.5 U	7.4 U
	11/20/2015	15-20	540 U	4.2 U	4.9 U	5.7 U	5.7 U	5.7 U	-	-	-	*27 U*	-	-	-	-	-
	03/16/2016	15-20	940 U	7.4 U	8.7 U	10 U	10 U	10 U	-	-	-	*24 U*	-	-	-	-	-
	04/01/2016	15-20	550 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*28 U*	-	-	-	-	-
	04/13/2016	15-20	580 U	4.5 U	5.3 U	6.1 U	6.1 U	6.1 U	-	-	-	*15 U*	-	-	-	-	-
	07/12/2016	5-10	510 U	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			NA	10.7/32.1	76,200/229,000	15,200/45,700	1,520/4,570[2]	1,520/4,570	0.139/0.417	3.21/9.62	321/962	2.45/7.35	321/962	12.3/37	NA	13.9/41.7	76,200/229,000
SVE-2 (cont'd)	10/21/2016	5-10	500 U	3.9 U	4.6 U	5.4 U	5.4 U	5.4 U	-	-	-	*26 U*	220	-	-	-	-
	01/30/2017	5-10	490 U	3.9 U	4.6 U	5.2 U	5.2 U	5.2 U	-	-	-	*13 U*	-	-	-	-	-
SVE-3	08/22/2013	5-10	16,000	**55**	15	5.3 U	8.3	5.3 U	*9.4 U*	*4.9 U*	4.4 U	-	8.3 U	6.6 U	1,600 E	7.7 U	6.6 U
	12/04/2013	5-10	160,000	**72**	720	57	730	360	*9.1 U*	*4.8 U*	4.3 U	-	8.1 U	6.4 U	38	7.5 U	6.5 U
	02/10/2014	5-10	91,000	**36**	130	30	240	150	*35 U*	*19 U*	16 U	-	31 U	*25 U*	54 U	*29 U*	25 U
	05/08/2014	5-10	1,300 U	*20 U*	24 U	27 U	27 U	27 U	*48 U*	*25 U*	23 U	-	43 U	*34 U*	74 U	*40 U*	34 U
	08/08/2014	5-10	1,600	4.0 U	17	5.5 U	16	6.7	*9.8 U*	*5.1 U*	4.6 U	-	8.6 U	6.8 U	25	8.0 U	6.9 U
	11/14/2014	5-10	240 U	3.7 U	4.4 U	5.0 U	5.0 U	5.0 U	*8.9 U*	*4.7 U*	4.2 U	-	8.8	6.2 U	14 U	7.3 U	6.3 U
	02/06/2015	5-10	380,000	*80 U*	95 U	110 U	110 U	110 U	*190 U*	*100 U*	91 U	*530 U*	170 U	*140 U*	300 U	*160 U*	140 U
	03/06/2015	5-10	25,000	4.0 U	5.7	5.4 U	5.9	5.4 U	*9.6 U*	*5.1 U*	4.5 U	*26 U*	8.5 U	6.7 U	15 U	7.9 U	6.8 U
	06/19/2015	5-10	1,000	4.2 U	5.4	5.8 U	5.8 U	5.8 U	*10 U*	*5.4 U*	4.8 U	*14 U*	9.0 U	7.1 U	16 U	8.4 U	7.2 U
	08/18/2015	5-10	3,600	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	*10 U*	*5.5 U*	4.9 U	*14 U*	9.2 U	7.3 U	23	8.6 U	7.4 U
	11/20/2015	5-10	2,000	3.8 U	12	5.2 U	5.2 U	5.2 U	-	-	-	*25 U*	-	-	-	-	-
	03/16/2016	5-10	99,000	**700**	7,800	360	1,300	510	-	-	-	*54 U*	-	-	-	-	-
	04/01/2016	5-10	1,600	4.4 U	5.2 U	6.0 U	6.0 U	6.0 U	-	-	-	*29 U*	-	-	-	-	-
	04/13/2016	5-10	5,300	**12**	160	17	74	97	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	5-10	740	4.1 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	5-10	4,900	4.5 U	7.0	6.1 U	6.1 U	6.1 U	-	-	-	*30 U*	9.6 U	-	-	-	-
	01/30/2017	5-10	1,700	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-
SVE-4	08/22/2013	15-20	250 U	3.9 U	4.6 U	5.3 U	5.3 U	5.3 U	*9.4 U*	5.0 U	4.4 U	-	8.5	6.6 U	450	7.7 U	6.7 U
	12/04/2013	15-20	53,000	15 U	460	21 U	21 U	21 U	*36 U*	*19 U*	17 U	-	**3,600**	26 U	56 U	30 U	26 U
	03/07/2014	15-20	670	4.0 U	4.7 U	5.4 U	6.5	5.4 U	*9.5 U*	5.0 U	4.5 U	-	**1,200**	6.7 U	21	7.8 U	6.8 U
	05/08/2014	15-20	950 U	15 U	18 U	20 U	20 U	20 U	*36 U*	*19 U*	17 U	-	**2,700**	25 U	55 U	29 U	25 U
	08/08/2014	15-20	2,700	4.0 U	35	6.7	24	8.7	*9.6 U*	5.0 U	4.5 U	-	**3,200**	6.7 U	46	7.9 U	6.8 U
	11/14/2014	15-20	240 U	3.8 U	4.5 U	5.2 U	6.0	5.2 U	*9.2 U*	4.8 U	4.3 U	-	130	6.4 U	14 U	7.5 U	6.5 U
	02/06/2015	15-20	140,000	*79 U*	93 U	110 U	110 U	110 U	*190 U*	*100 U*	89 U	*520 U*	220	*130 U*	290 U	*160 U*	130 U
	03/06/2015	15-20	520 U	4.0 U	4.7 U	5.5 U	5.5 U	5.5 U	*9.7 U*	5.1 U	4.5 U	*26 U*	**2,500**	6.8 U	15 U	7.9 U	6.9 U
	06/19/2015	15-20	540 U	4.2 U	5.0	5.7 U	5.7 U	5.7 U	*10 U*	5.3 U	4.8 U	*14 U*	400	7.1 U	16 U	8.3 U	7.2 U
	08/18/2015	15-20	520 U	4.1 U	4.8 U	5.6 U	5.6 U	5.6 U	*9.9 U*	5.2 U	4.6 U	*13 U*	19	6.9 U	15 U	8.1 U	7.0 U
	11/20/2015	15-20	510 U	4.0 U	5.0	5.4 U	5.4 U	5.4 U	-	-	-	*26 U*	-	-	-	-	-
	03/16/2016	15-20	530 U	4.2 U	4.9 U	5.7 U	5.7 U	5.7 U	-	-	-	*14 U*	-	-	-	-	-
	04/01/2016	15-20	550 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*28 U*	-	-	-	-	-
	04/13/2016	15-20	980	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	15-20	520 U	4.0 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	15-20	850 U	6.7 U	22	9.1 U	10	9.1 U	-	-	-	*44 U*	**4,000**	-	-	-	-
	01/30/2017	15-20	39,000	*40 U*	47 U	55 U	55 U	55 U	-	-	-	*130 U*	-	-	-	-	-
SVE-5	08/22/2013	5-10	8,600	*17 U*	20 U	23 U	23 U	23 U	*41 U*	*21 U*	19 U	-	36 U	*28 U*	4,500	*33 U*	29 U
	12/04/2013	5-10	8,100	**19**	640	53	180	92	*8.8 U*	*4.6 U*	4.1 U	-	18	6.2 U	20	7.2 U	6.2 U
	02/10/2014	5-10	110,000	**4,000**	8,400	810	**2,800**	970	*71 U*	*38 U*	34 U	-	63 U	*50 U*	110 U	*58 U*	51 U
	05/08/2014	5-10	3,200 U	*51 U*	60 U	69 U	69 U	69 U	*120 U*	*64 U*	57 U	-	280	*85 U*	200	*100 U*	86 U
	08/08/2014	5-10	2,000	4.1 U	18	5.6 U	18	7.8	*9.8 U*	*5.2 U*	4.6 U	-	8.7 U	6.9 U	37	8.0 U	7.0 U
	11/14/2014	5-10	230 U	3.6 U	4.3 U	5.0 U	13	5.0 U	*8.8 U*	*4.6 U*	4.1 U	-	87	6.2 U	14 U	7.2 U	6.2 U
	02/06/2015	5-10	74,000	*41 U*	49 U	56 U	56 U	56 U	*99 U*	*52 U*	46 U	*270 U*	88 U	*69 U*	150 U	*81 U*	70 U
	03/06/2015	5-10	41,000	**13**	990	69	760	330	*14 U*	*7.6 U*	6.8 U	*39 U*	13 U	10 U	22 U	12 U	10 U
	06/19/2015	5-10	560 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	*10 U*	*5.5 U*	4.9 U	*14 U*	9.2 U	7.3 U	18	8.6 U	7.4 U
	08/18/2015	5-10	530 U	4.1 U	4.9 U	5.6 U	5.6 U	5.6 U	*9.9 U*	*5.2 U*	4.6 U	*14 U*	8.8 U	6.9 U	21	8.1 U	7.0 U
	11/20/2015	5-10	510 U	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*26 U*	-	-	-	-	-
	03/16/2016	5-10	1,300 U	9.8 U	12 U	13 U	13 U	13 U	-	-	-	*32 U*	-	-	-	-	-
	04/01/2016	5-10	37,000	**760**	1,200	40	170	67	-	-	-	*26 U*	-	-	-	-	-
	04/13/2016	5-10	1,900	4.4 U	5.2	6.0 U	82	100	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	5-10	940	3.8 U	7.1	5.2 U	10	12	-	-	-	*12 U*	-	-	-	-	-
	10/21/2016	5-10	830 U	6.5 U	8.6	8.8 U	8.8 U	8.8 U	-	-	-	*42 U*	**4,200**	-	-	-	-
	01/30/2017	5-10	31,000	*26 U*	31 U	36 U	36 U	36 U	-	-	-	*86 U*	-	-	-	-	-

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			NA	10.7/32.1	76,200/229,000	15,200/45,700	1,520/4,570[2]	1,520/4,570	0.139/0.417	3.21/9.62	321/962	2.45/7.35	321/962	12.3/37	NA	13.9/41.7	76,200/229,000
SVE Blower Inlet	08/22/2013	NA	160,000	**2,100**	2,100	65	290	85	*92 U*	*48 U*	43 U	-	81 U	*64 U*	140 U	*76 U*	65 U
	09/27/2013	NA	24,000	**95**	92	5.2	18	5.2 U	*9.2 U*	*4.8 U*	4.3 U	-	8.1 U	6.4 U	14 U	7.5 U	6.5 U
	11/01/2013	NA	68,000	**200**	1,200	450	**2,200**	630	*18 U*	*9.7 U*	8.6 U	-	300	*13 U*	28 U	*15 U*	13 U
	12/04/2013	NA	26,000	**12**	1,500	16	130	52	*8.8 U*	*4.6 U*	4.1 U	-	**1,200**	6.2 U	14 U	7.2 U	6.2 U
	12/18/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/07/2014	NA	50,000	8.3	65	70	1,100	470	*18 U*	*9.7 U*	8.6 U	-	**410**	*13 U*	28 U	*15 U*	13 U
	05/08/2014	NA	24,000	*39 U*	46 U	54 U	510	290	*95 U*	*50 U*	44 U	-	**1,200**	*66 U*	140 U	*78 U*	67 U
	08/08/2014	NA	25,000	3.8 U	35	8.3	130	100	*9.1 U*	*4.8 U*	4.2 U	-	**1,200**	9.4	21	7.4 U	6.4 U
	11/14/2014	NA	19,000 [a]	*36 U*	43 U	49 U	50 U	50 U	*88 U*	*46 U*	41 U	-	77 U	*61 U*	130 U	*72 U*	62 U
	02/06/2015	NA	94,000	*79 U*	93 U	110 U	110 U	110 U	*190 U*	*100 U*	89 U	*520 U*	170 U	**150**	290 U	*160 U*	140 U
	06/19/2015	NA	590 U	4.6 U	5.4 U	6.2 U	6.2 U	6.2 U	*11 U*	*5.8 U*	5.2 U	*15 U*	38	7.7 U	17 U	9.1 U	7.8 U
	08/18/2015	NA	540 U	4.2 U	5.0 U	5.8 U	5.8 U	5.8 U	*10 U*	*5.4 U*	4.8 U	*14 U*	26	7.1 U	16 U	8.3 U	7.2 U
	11/20/2015	NA	13,000	10 U	12 U	14 U	14 U	14 U	*24 U*	*13 U*	11 U	*33 U*	90	*17 U*	37 U	*20 U*	17 U
	04/13/2016	NA	540 U	4.2 U	10	5.7 U	5.7 U	5.7 U	*10 U*	*5.3 U*	4.7 U	*14 U*	**390**	7.1 U	16 U	8.3 U	7.2 U
	07/12/2016	NA	560 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*14 U*	**2,200**	-	-	-	-
	10/21/2016	NA	2,400	9.5	29	5.8 U	6.7	5.8 U	*10 U*	*5.4 U*	19 U	*14 U*	**1,800**	7.2 U	16 U	8.5 U	7.3 U
	01/30/2017	NA	34,000	*40 U*	48 U	55 U	55 U	55 U	*97 U*	*51 U*	180 U	*130 U*	**600**	*68 U*	150 U	*80 U*	69 U
	03/21/2017	NA	520 U	4.0 UJ	25 J	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
Post-GAC	08/22/2013	NA	230 U	3.6 U	4.3 U	4.9 U	4.9 U	4.9 U	*8.7 U*	*4.6 U*	4.1 U	-	7.7 U	6.1 U	13	7.1 U	6.2 U
	09/27/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/01/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/04/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/18/2013	NA	1,900	3.8 U	5.4	5.2 U	5.2 U	5.2 U	*9.2 U*	*4.8 U*	4.3 U	-	8.1 U	6.4 U	14 U	7.6 U	6.5 U
	03/07/2014	NA	43,000	*37 U*	44 U	51 U	51 U	51 U	*90 U*	*47 U*	42 U	-	79 U	*63 U*	140 U	*74 U*	64 U
	05/08/2014[b]	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

[1] Washington Department of Ecology (WDOE), CLARC database values (August 2015).

The numerator value is the screening level for sub-slab (<15 foot depth) soil gas measurements; the denominator value is for deep (>=15 foot depth) soil gas measurements.

[2] Screening levels for m-xylene

[a] The hydrocarbon profile present did not resemble that of commercial gasoline. Results calculated using the response factor derived from the gasoline calibration.

[b] Carbon treatment for system exhaust discontinued on March 28, 2014.

[c] Reporting limits were raised due to high levels of non-target analytes.

Volatiles by EPA Method TO-15

MTBE = Methyl tert-butyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

PCE = Tetrachloroethene

TCE = Trichloroethene

µg/m^3 = Micrograms per cubic meter

Bold values indicate concentrations exceed the Method B soil gas screening level for representative sample depth.

Italics indicate analytical reporting limits exceed Method B soil gas screening level for representative sample depth.

U = Undetected at method reporting limit shown

J = Estimated concentration. The associated numerical value is the approximate concentration of the analyte in the sample. See data validation report for additional information.

NA = Not Applicable/Not Available

E = Estimated concentration. Result exceeds calibration range for the instrument.

- = not analyzed for this parameter

TABLE 4

Soil Vapor Extraction Mass Removal

Plaid Pantry No. 112

Vancouver, Washington

Date	Cumulative Operating Days	Total System Flow (ft^3/min)	Pre-Treatment Lab Analysis (mg/m^3)		Estimated Mass Removal Rate Per Cycle (Pounds/Day)[a]		Estimated Cumulative Mass Removed (Pounds)		Estimated Cumulative Discharge Emissions (Pounds)[b]	
			Gasoline	PCE	Gasoline	PCE	Gasoline	PCE	Gasoline	PCE
08/22/2013	0.25	95	160	0.081 U	1.4	0.00069	0.34	0.00017	0.00049	0.000016
09/27/2013	23	79	24	0.0081 U	0.72	0.00035	17	0.0081	0.042	0.0014
11/01/2013	57	54	68	0.30	0.28	0.00092	26	0.039	0.088	0.0029
12/04/2013	89	98	26	1.2	0.32	0.0051	36	0.20	0.32	0.0047
03/07/2014	160	55	50	0.41	0.26	0.0055	55	0.60	11	0.026
05/09/2014	223	88	24	1.2	0.24	0.0052	70	0.92	25	0.28
08/08/2014	314	87	25	1.2	0.19	0.0095	87	1.8	42	1.1
11/14/2014	412	97	19	0.077 U	0.18	0.0053	105	2.3	60	1.7
02/06/2015	475	88	94	0.17 U	0.47	0.0010	135	2.4	90	1.7
03/06/2015	503	88	2.5 [e]	1.0 [e]	0.38	0.0047	145	2.5	101	1.9
06/19/2015	607	87	0.59 U	0.038	0.012	0.0041	147	2.9	102	2.3
08/18/2015	667	96	0.54 U	0.026	0.0047	0.00026	147	2.9	102	2.3
11/20/2015	758	89	13	0.090	0.056	0.00048	152	3.0	107	2.4
04/13/2016	803	112	0.54 U	0.39	0.061	0.0022	155	3.1	110	2.5
07/12/2016	881	96	0.56 U	2.2	0.0052	0.012	155	4.0	110	3.4
10/21/2016	975	97	2.4	1.8	0.013	0.017	156	5.7	112	5.0
01/30/2017	1052	89	34	0.60	0.15	0.010	168	6.4	123	5.8
							Estimated Emissions During Last 12 Months (Pounds/Year):		16	3.5
							Annual Emissions Threshold (Pounds/Year):		2,000[c]	500[d]

Notes:

[a] Concentrations are averaged between start and end of each time period

[b] Granular activated carbon used to treat emissions prior to discharge between 8/22/13 and 3/28/14. Emissions treatment discontinued on 3/28/14.

[c] Small Quantity Emissions Rate (SQER), per SWCAA 400, General Regulations for Air Pollution Sources, dated 11/15/09.

[d] Registration exemption threshold for criteria pollutants and VOCs, per Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants, dated 8/21/98.

[e] Estimated mass based upon historic data trends.

ft^3/min = Cubic feet per minute

mg/m^3 = Milligrams per cubic meter

- = Not measured

SVE system off from December 2015 through March 2016 for rebound monitoring and perched GW evaluation.

Charts

CHART 1

Gasoline Vapor Concentrations During SVE Operations (ug/m^3)

Plaid Pantry No. 112

Vancouver, Washington

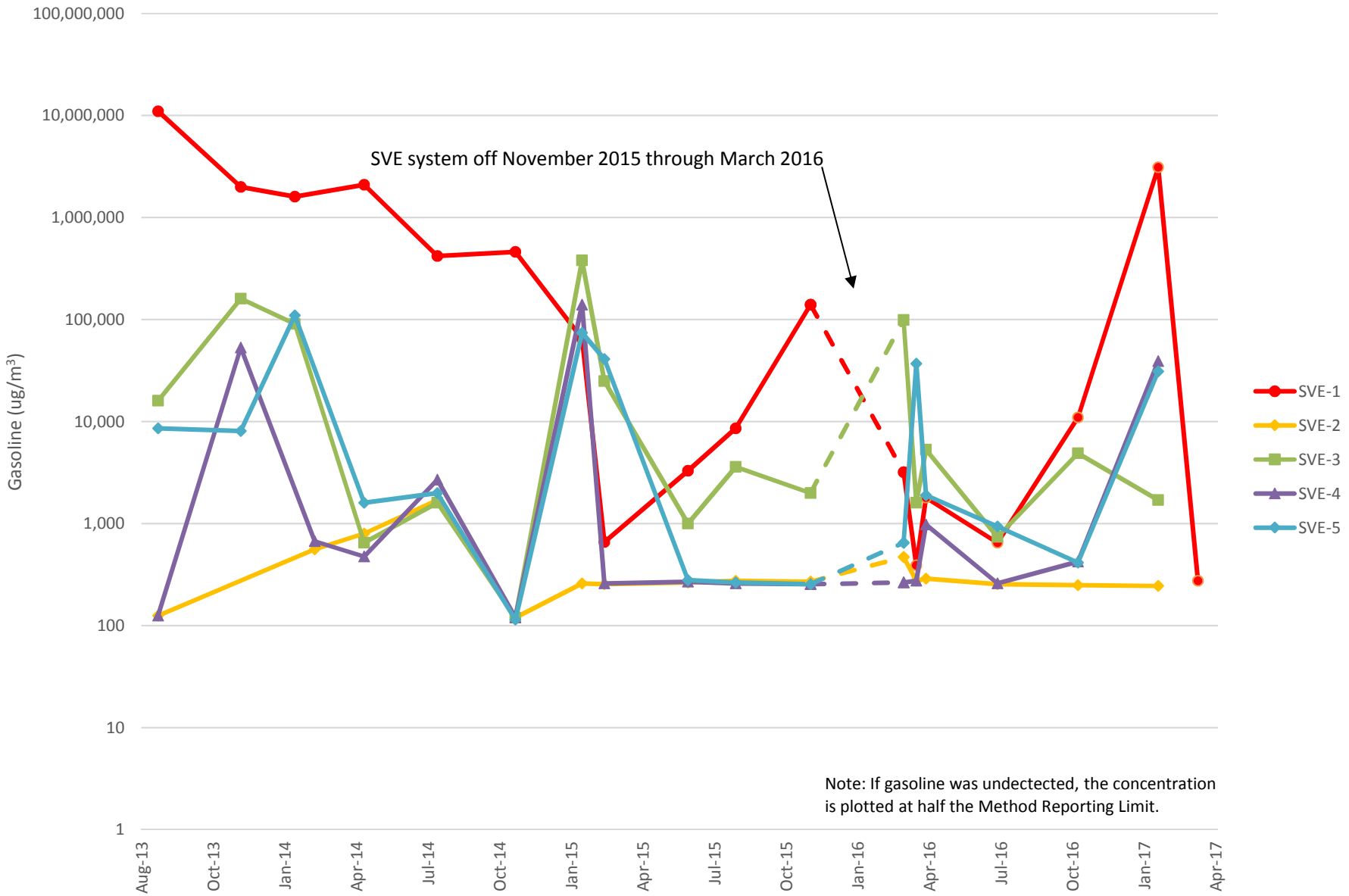


CHART 2

Benzene Vapor Concentrations During SVE Operations (ug/m^3)

Plaid Pantry No. 112

Vancouver, Washington

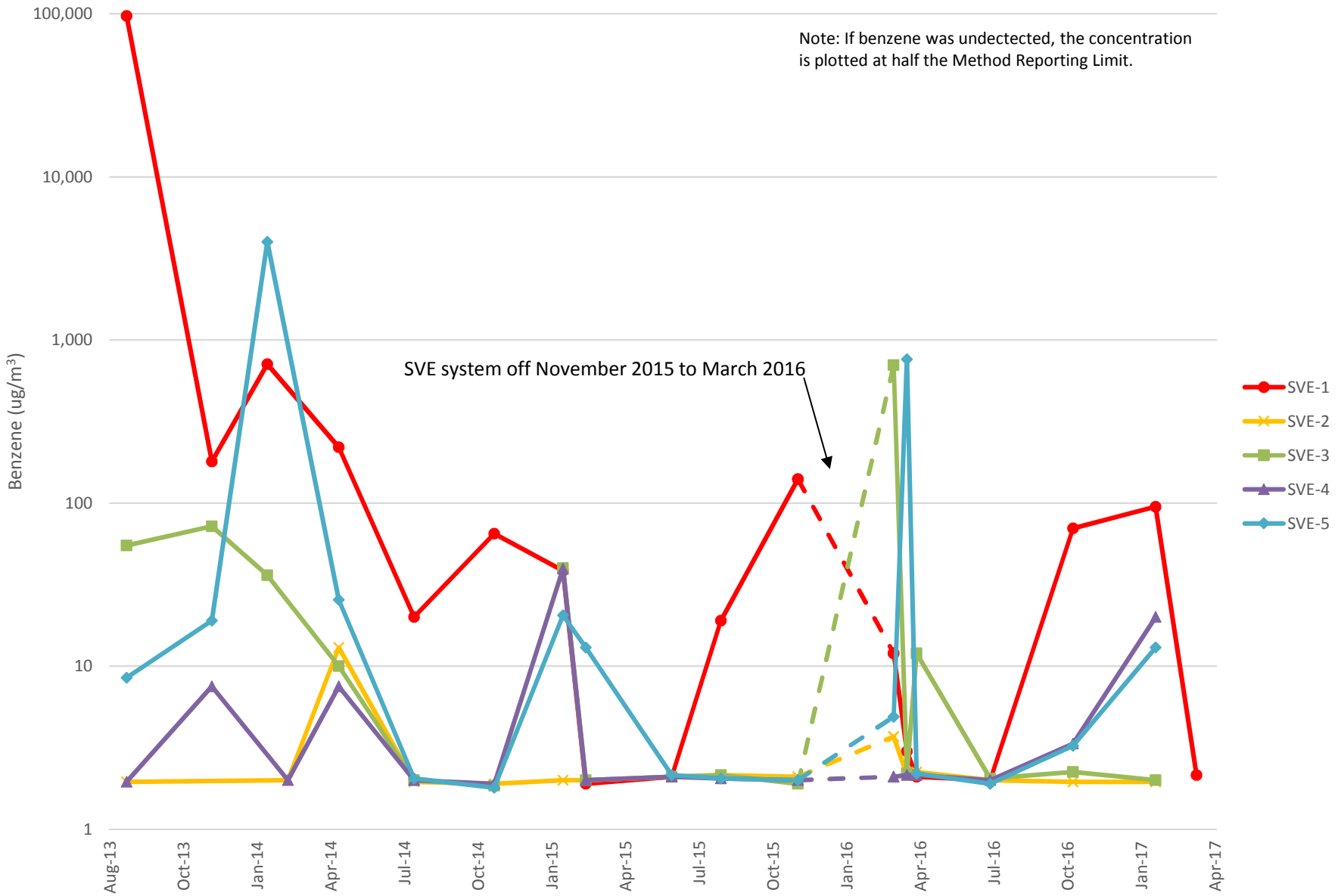


CHART 3

Gasoline Mass Extraction Rates and Cumulative Mass Removal

Plaid Pantry No. 112

Vancouver, Washington

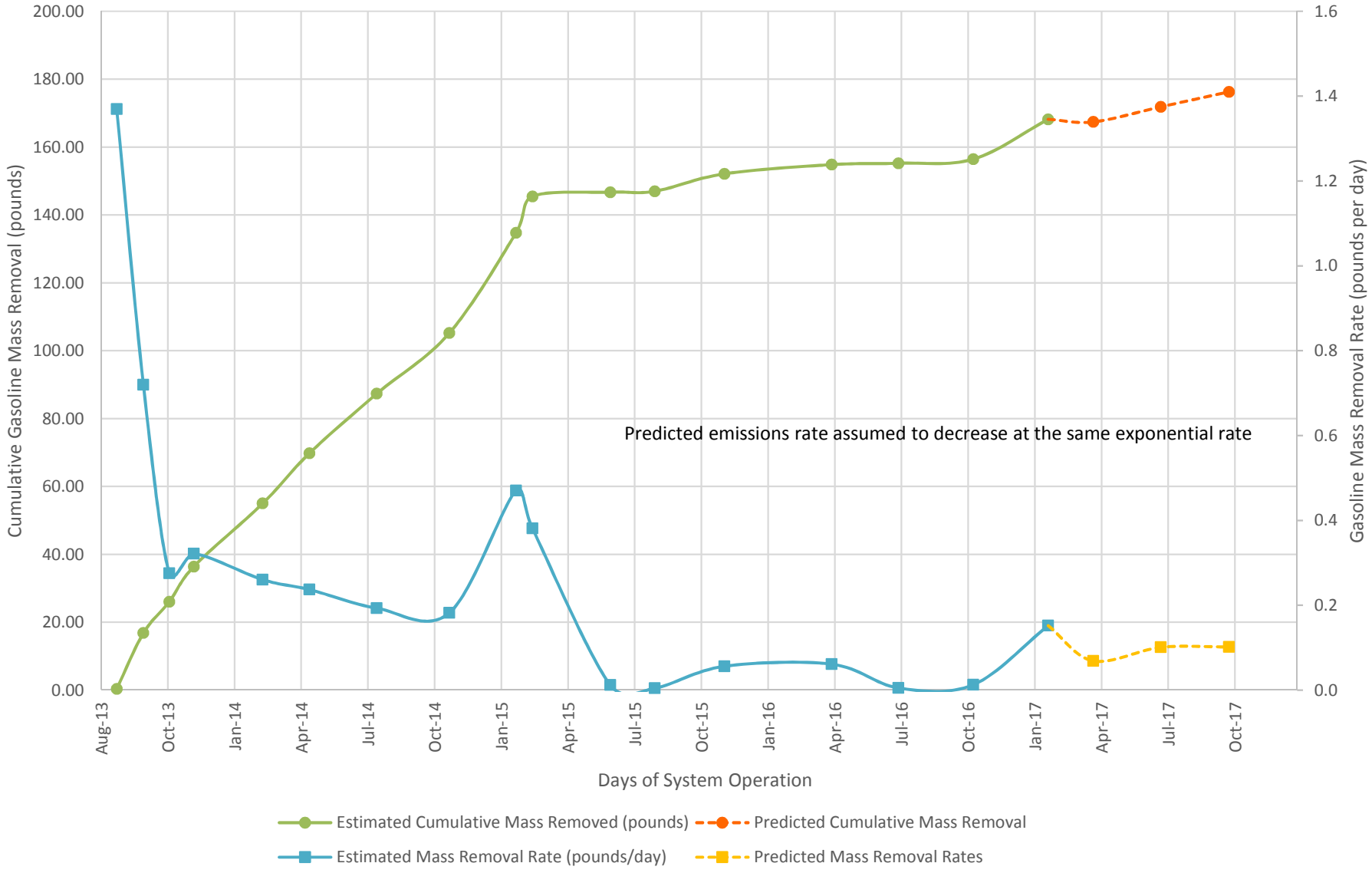
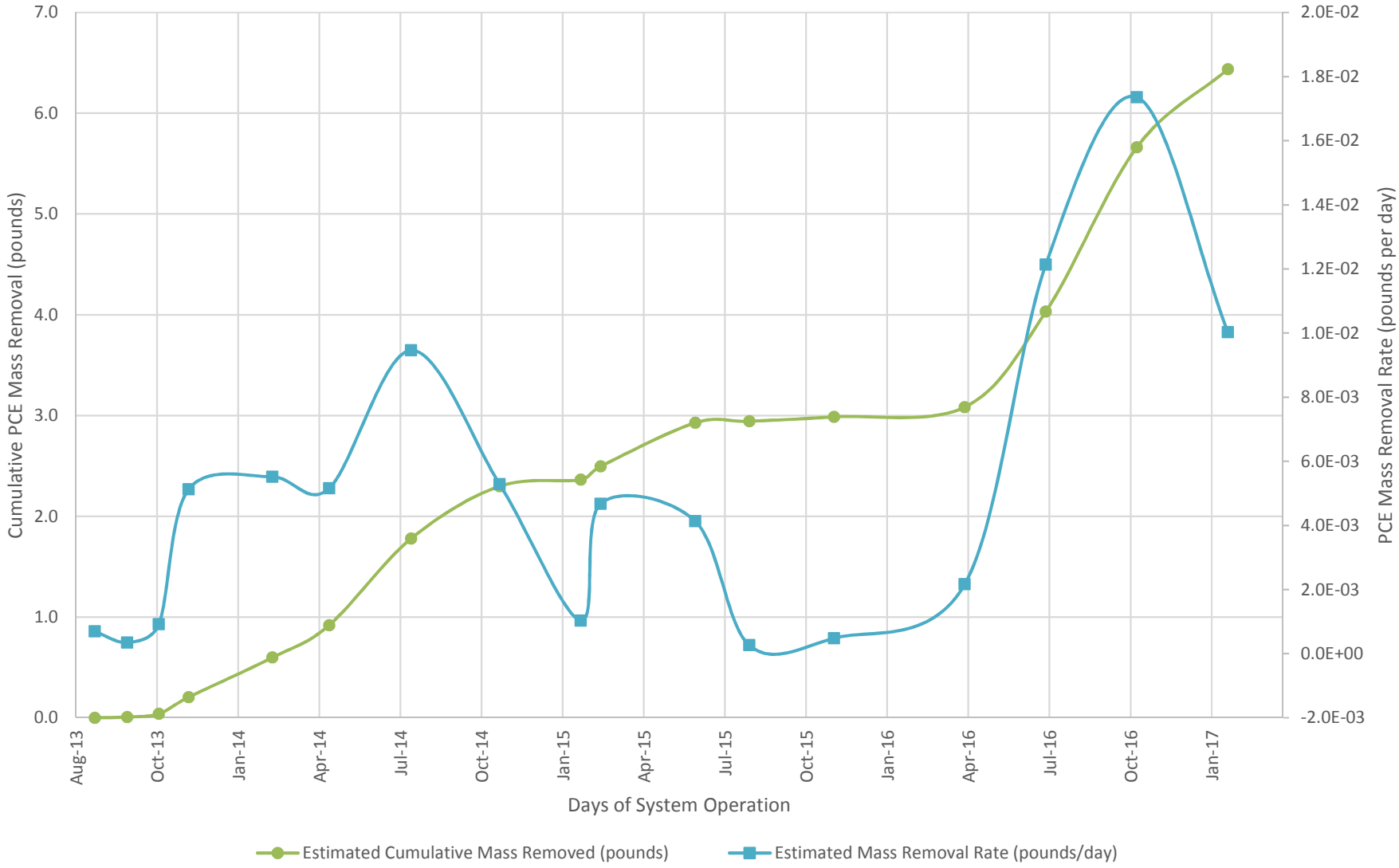


CHART 4

PCE Mass Extraction Rates and Cumulative Mass Removal

Plaid Pantry No. 112

Vancouver, Washington



Attachment A

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3/3/2017
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PLAID PANTRY #112
Project #: 1179-02
Workorder #: 1702025R1

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 2/1/2017 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 to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1702025R1

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	-
FAX:		**PROJECT #**	1179-02 PLAID PANTRY #112
DATE RECEIVED:	02/01/2017	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	02/13/2017		
DATE REISSUED:	03/02/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE BLOWER INLET	TO-15	5.9 "Hg	15.2 psi
02A	SVE-2	TO-15	4.9 "Hg	15.1 psi
03A	SVE-1	TO-15	4.9 "Hg	15.2 psi
04A	SVE-4	TO-15	5.7 "Hg	15.3 psi
05A	SVE-5	TO-15	5.3 "Hg	15 psi
06A	SVE-3	TO-15	5.5 "Hg	15.3 psi
07A	Lab Blank	TO-15	NA	NA
07B	Lab Blank	TO-15	NA	NA
08A	CCV	TO-15	NA	NA
08B	CCV	TO-15	NA	NA
09A	LCS	TO-15	NA	NA
09AA	LCSD	TO-15	NA	NA
09B	LCS	TO-15	NA	NA
09BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/02/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

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
EES Environmental Consulting, Inc.
Workorder# 1702025R1

Six 1 Liter Summa Canister samples were received on February 01, 2017. 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 was missing method information. EATL proceeded with the analysis as per the original contract or verbal agreement.

Analytical Notes

Dilution was performed on samples SVE BLOWER INLET, SVE-1, SVE-4 and SVE-5 due to the presence of high level non-target species.

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The Relative Percent Difference (RPD) of the LCS/LCSD exceeded acceptance limits on MSD14 for Naphthalene.

Due to the laboratory error, the workorder was reissued on 3/2/17 to include the following narrative:

The hydrocarbon profile present in sample SVE-1 did not resemble that of commercial gasoline. Results were calculated using the response factor derived from the gasoline calibration.

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

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

Client Sample ID: SVE BLOWER INLET

Lab ID#: 1702025R1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	13	37	44	130
Cyclohexane	13	39	44	130
2,2,4-Trimethylpentane	13	40	59	180
Tetrachloroethene	13	88	86	600
TPH ref. to Gasoline (MW=100)	1300	8400	5200	34000

Client Sample ID: SVE-2

Lab ID#: 1702025R1-02A

No Detections Were Found.

Client Sample ID: SVE-1

Lab ID#: 1702025R1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	2400	760000	10000	3100000

Client Sample ID: SVE-4

Lab ID#: 1702025R1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	1300	9500	5200	39000

Client Sample ID: SVE-5

Lab ID#: 1702025R1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	820	7600	3400	31000

Client Sample ID: SVE-3

Lab ID#: 1702025R1-06A

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

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

Client Sample ID: SVE-3

Lab ID#: 1702025R1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	120	410	510	1700

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Client Sample ID: SVE BLOWER INLET

Lab ID#: 1702025R1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020712**	**Date of Collection:**	**1/30/17 11:10:00 AM**
Dil. Factor:	**25.3**	**Date of Analysis:**	**2/7/17 05:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	13	Not Detected	62	Not Detected
Freon 114	13	Not Detected	88	Not Detected
Chloromethane	130	Not Detected	260	Not Detected
Vinyl Chloride	13	Not Detected	32	Not Detected
1,3-Butadiene	13	Not Detected	28	Not Detected
Bromomethane	130	Not Detected	490	Not Detected
Chloroethane	51	Not Detected	130	Not Detected
Freon 11	13	Not Detected	71	Not Detected
Ethanol	51	Not Detected	95	Not Detected
Freon 113	13	Not Detected	97	Not Detected
1,1-Dichloroethene	13	Not Detected	50	Not Detected
Acetone	130	Not Detected	300	Not Detected
2-Propanol	51	Not Detected	120	Not Detected
Carbon Disulfide	51	Not Detected	160	Not Detected
3-Chloropropene	51	Not Detected	160	Not Detected
Methylene Chloride	130	Not Detected	440	Not Detected
Methyl tert-butyl ether	51	Not Detected	180	Not Detected
trans-1,2-Dichloroethene	13	Not Detected	50	Not Detected
Hexane	13	37	44	130
1,1-Dichloroethane	13	Not Detected	51	Not Detected
2-Butanone (Methyl Ethyl Ketone)	51	Not Detected	150	Not Detected
cis-1,2-Dichloroethene	13	Not Detected	50	Not Detected
Tetrahydrofuran	13	Not Detected	37	Not Detected
Chloroform	13	Not Detected	62	Not Detected
1,1,1-Trichloroethane	13	Not Detected	69	Not Detected
Cyclohexane	13	39	44	130
Carbon Tetrachloride	13	Not Detected	80	Not Detected
2,2,4-Trimethylpentane	13	40	59	180
Benzene	13	Not Detected	40	Not Detected
1,2-Dichloroethane	13	Not Detected	51	Not Detected
Heptane	13	Not Detected	52	Not Detected
Trichloroethene	13	Not Detected	68	Not Detected
1,2-Dichloropropane	13	Not Detected	58	Not Detected
1,4-Dioxane	51	Not Detected	180	Not Detected
Bromodichloromethane	13	Not Detected	85	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	57	Not Detected
4-Methyl-2-pentanone	13	Not Detected	52	Not Detected
Toluene	13	Not Detected	48	Not Detected
trans-1,3-Dichloropropene	13	Not Detected	57	Not Detected
1,1,2-Trichloroethane	13	Not Detected	69	Not Detected
Tetrachloroethene	13	88	86	600
2-Hexanone	51	Not Detected	210	Not Detected

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Client Sample ID: SVE BLOWER INLET

Lab ID#: 1702025R1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020712**	**Date of Collection:**	**1/30/17 11:10:00 AM**
Dil. Factor:	**25.3**	**Date of Analysis:**	**2/7/17 05:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	13	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	13	Not Detected	97	Not Detected
Chlorobenzene	13	Not Detected	58	Not Detected
Ethyl Benzene	13	Not Detected	55	Not Detected
m,p-Xylene	13	Not Detected	55	Not Detected
o-Xylene	13	Not Detected	55	Not Detected
Styrene	13	Not Detected	54	Not Detected
Bromoform	13	Not Detected	130	Not Detected
Cumene	13	Not Detected	62	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	87	Not Detected
Propylbenzene	13	Not Detected	62	Not Detected
4-Ethyltoluene	13	Not Detected	62	Not Detected
1,3,5-Trimethylbenzene	13	Not Detected	62	Not Detected
1,2,4-Trimethylbenzene	13	Not Detected	62	Not Detected
1,3-Dichlorobenzene	13	Not Detected	76	Not Detected
1,4-Dichlorobenzene	13	Not Detected	76	Not Detected
alpha-Chlorotoluene	13	Not Detected	65	Not Detected
1,2-Dichlorobenzene	13	Not Detected	76	Not Detected
1,2,4-Trichlorobenzene	51	Not Detected	380	Not Detected
Hexachlorobutadiene	51	Not Detected	540	Not Detected
Naphthalene	25	Not Detected	130	Not Detected
TPH ref. to Gasoline (MW=100)	1300	8400	5200	34000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: SVE-2

Lab ID#: 1702025R1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020713**	**Date of Collection: 1/30/17 11:33:00 AM**	
Dil. Factor:	**2.42**	**Date of Analysis: 2/7/17 05:40 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	3.9	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Naphthalene	2.4	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	490	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-1

Lab ID#: 1702025R1-03A

EPA METHOD TO-15 GC/MS

File Name:	**14020717**	**Date of Collection:**	**1/30/17 11:54:00 AM**
Dil. Factor:	**12.2**	**Date of Analysis:**	**2/7/17 08:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	61	Not Detected	190	Not Detected
Toluene	61	Not Detected	230	Not Detected
Ethyl Benzene	61	Not Detected	260	Not Detected
m,p-Xylene	61	Not Detected	260	Not Detected
o-Xylene	61	Not Detected	260	Not Detected
Naphthalene	240	Not Detected	1300	Not Detected
TPH ref. to Gasoline (MW=100)	2400	760000	10000	3100000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-4

Lab ID#: 1702025R1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020714**	**Date of Collection: 1/30/17 12:23:00 PM**	
Dil. Factor:	**25.2**	**Date of Analysis: 2/7/17 06:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	13	Not Detected	40	Not Detected
Ethyl Benzene	13	Not Detected	55	Not Detected
Toluene	13	Not Detected	47	Not Detected
m,p-Xylene	13	Not Detected	55	Not Detected
o-Xylene	13	Not Detected	55	Not Detected
Naphthalene	25	Not Detected	130	Not Detected
TPH ref. to Gasoline (MW=100)	1300	9500	5200	39000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: SVE-5

Lab ID#: 1702025R1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020715**	**Date of Collection: 1/30/17 12:46:00 PM**	
Dil. Factor:	**16.4**	**Date of Analysis: 2/7/17 06:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	8.2	Not Detected	26	Not Detected
Ethyl Benzene	8.2	Not Detected	36	Not Detected
Toluene	8.2	Not Detected	31	Not Detected
m,p-Xylene	8.2	Not Detected	36	Not Detected
o-Xylene	8.2	Not Detected	36	Not Detected
Naphthalene	16	Not Detected	86	Not Detected
TPH ref. to Gasoline (MW=100)	820	7600	3400	31000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: SVE-3

Lab ID#: 1702025R1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020716**	**Date of Collection: 1/30/17 1:02:00 PM**	
Dil. Factor:	**2.50**	**Date of Analysis: 2/7/17 07:00 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	4.0	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	120	410	510	1700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1702025R1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020706**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 12:50 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	2.0	Not Detected	7.2	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

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Client Sample ID: Lab Blank

Lab ID#: 1702025R1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020706**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 12:50 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
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1702025R1-07B

EPA METHOD TO-15 GC/MS

File Name:	**14020705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 10:56 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	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
Naphthalene	20	Not Detected	100	Not Detected
TPH ref. to Gasoline (MW=100)	200	Not Detected	820	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: CCV

Lab ID#: 1702025R1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020702**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 08:39 AM**

Compound	%Recovery
Freon 12	101
Freon 114	99
Chloromethane	104
Vinyl Chloride	96
1,3-Butadiene	98
Bromomethane	91
Chloroethane	94
Freon 11	98
Ethanol	94
Freon 113	95
1,1-Dichloroethene	93
Acetone	97
2-Propanol	96
Carbon Disulfide	92
3-Chloropropene	91
Methylene Chloride	101
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	94
Hexane	96
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	94
Tetrahydrofuran	98
Chloroform	97
1,1,1-Trichloroethane	93
Cyclohexane	92
Carbon Tetrachloride	96
2,2,4-Trimethylpentane	98
Benzene	94
1,2-Dichloroethane	106
Heptane	94
Trichloroethene	95
1,2-Dichloropropane	95
1,4-Dioxane	96
Bromodichloromethane	102
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	95
Toluene	97
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	84
Tetrachloroethene	89
2-Hexanone	84

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Client Sample ID: CCV

Lab ID#: 1702025R1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 08:39 AM**	

Compound	%Recovery
Dibromochloromethane	89
1,2-Dibromoethane (EDB)	87
Chlorobenzene	87
Ethyl Benzene	83
m,p-Xylene	86
o-Xylene	86
Styrene	85
Bromoform	89
Cumene	85
1,1,2,2-Tetrachloroethane	87
Propylbenzene	85
4-Ethyltoluene	86
1,3,5-Trimethylbenzene	85
1,2,4-Trimethylbenzene	85
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	87
alpha-Chlorotoluene	85
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	91
Naphthalene	86
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: CCV

Lab ID#: 1702025R1-08B

EPA METHOD TO-15 GC/MS

File Name:	**14020702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 08:45 AM**	

Compound	%Recovery
Benzene	114
Toluene	109
Ethyl Benzene	107
m,p-Xylene	103
o-Xylene	106
Naphthalene	108
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCS

Lab ID#: 1702025R1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 09:05 AM**	

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	94	70-130
Chloromethane	101	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	89	70-130
Bromomethane	91	70-130
Chloroethane	91	70-130
Freon 11	96	70-130
Ethanol	81	70-130
Freon 113	93	70-130
1,1-Dichloroethene	91	70-130
Acetone	92	70-130
2-Propanol	96	70-130
Carbon Disulfide	91	70-130
3-Chloropropene	91	70-130
Methylene Chloride	97	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	100	70-130
Hexane	93	70-130
1,1-Dichloroethane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	86	70-130
Tetrahydrofuran	97	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	94	70-130
Benzene	90	70-130
1,2-Dichloroethane	101	70-130
Heptane	90	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	97	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	94	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	86	70-130
2-Hexanone	90	70-130

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Client Sample ID: LCS

Lab ID#: 1702025R1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 09:05 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	88	70-130
1,2-Dibromoethane (EDB)	86	70-130
Chlorobenzene	86	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	88	70-130
o-Xylene	86	70-130
Styrene	89	70-130
Bromoform	91	70-130
Cumene	84	70-130
1,1,2,2-Tetrachloroethane	86	70-130
Propylbenzene	86	70-130
4-Ethyltoluene	89	70-130
1,3,5-Trimethylbenzene	84	70-130
1,2,4-Trimethylbenzene	86	70-130
1,3-Dichlorobenzene	88	70-130
1,4-Dichlorobenzene	88	70-130
alpha-Chlorotoluene	90	70-130
1,2-Dichlorobenzene	87	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	88	70-130
Naphthalene	89	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1702025R1-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 09:30 AM**	

Compound	%Recovery	Method Limits
Freon 12	97	70-130
Freon 114	94	70-130
Chloromethane	103	70-130
Vinyl Chloride	95	70-130
1,3-Butadiene	93	70-130
Bromomethane	92	70-130
Chloroethane	94	70-130
Freon 11	98	70-130
Ethanol	83	70-130
Freon 113	93	70-130
1,1-Dichloroethene	90	70-130
Acetone	94	70-130
2-Propanol	97	70-130
Carbon Disulfide	93	70-130
3-Chloropropene	91	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	99	70-130
Hexane	93	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	87	70-130
Tetrahydrofuran	99	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	91	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	94	70-130
Benzene	91	70-130
1,2-Dichloroethane	105	70-130
Heptane	95	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	95	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	99	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	88	70-130
2-Hexanone	91	70-130

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Client Sample ID: LCSD

Lab ID#: 1702025R1-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a020704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 09:30 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	88	70-130
1,2-Dibromoethane (EDB)	86	70-130
Chlorobenzene	88	70-130
Ethyl Benzene	87	70-130
m,p-Xylene	87	70-130
o-Xylene	87	70-130
Styrene	90	70-130
Bromoform	93	70-130
Cumene	85	70-130
1,1,2,2-Tetrachloroethane	87	70-130
Propylbenzene	87	70-130
4-Ethyltoluene	89	70-130
1,3,5-Trimethylbenzene	86	70-130
1,2,4-Trimethylbenzene	87	70-130
1,3-Dichlorobenzene	89	70-130
1,4-Dichlorobenzene	90	70-130
alpha-Chlorotoluene	91	70-130
1,2-Dichlorobenzene	89	70-130
1,2,4-Trichlorobenzene	90	70-130
Hexachlorobutadiene	91	70-130
Naphthalene	94	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1702025R1-09B

EPA METHOD TO-15 GC/MS

File Name:	**14020703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 09:43 AM**	

Compound	%Recovery	Method Limits
Benzene	112	70-130
Toluene	105	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	106	70-130
o-Xylene	107	70-130
Naphthalene	125	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1702025R1-09BB

EPA METHOD TO-15 GC/MS

File Name:	**14020704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 10:20 AM**	

Compound	%Recovery	Method Limits
Benzene	111	70-130
Toluene	104	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	107	70-130
o-Xylene	107	70-130
Naphthalene	179 Q	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager CHRIS RHEA
Collected by: (Print and Sign) DANIELE PETERS Daniele Peters
Company EES ENVIRONMENTAL Email CHRIS@EES-ENV.COM
Address 240 N BROADWAY STE 203 City PORTLAND State OR Zip 97227
Phone 503.827.2740 Fax —

Project Info:
P.O. # —
Project # 1179-02
Project Name PLAID PANTRY #112

Turn Around Time:
☑ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SVE BLOWER INLET	IL2388	1-30-17	1110		30	8		
02A	SVE-2	40873		1133		30	8		
03A	SVE-1	IL2646		1154		30	8		
04A	SVE-4	IL2534		1223		30	7		
05A	SVE-5	IL2769		1246		30	8		
06A	SVE-3	IL2420		1302		30	8		

Relinquished by: (signature) Date/Time: Daniele Peters 1-30-17 1730
Received by: (signature) Date/Time: abeBy GAT 2/1/17 1210

Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Notes:
PLEASE CONFIRM ANALYSES WITH CHRIS RHEA

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
Fed Ex		NA	Good	Yes No (None)	1702025

Form 1293 rev.11

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4/4/2017
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PLAID PANTRY #112
Project #: 1179-02
Workorder #: 1703429

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 3/23/2017 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 to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1703429

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-02 PLAID PANTRY #112
DATE RECEIVED:	03/23/2017	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	04/04/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE BLOWER INLET	TO-15	6.1 "Hg	15 psi
02A	SVE-1	TO-15	7.3 "Hg	15 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 04/04/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards
Accreditation Body: ANAB (DoD-ELAP Testing). Accreditation#: ADE-1451, Eff. date: 11/11/2016, Exp. date: 04/27/2018.

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LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 1703429

Two 1 Liter Summa Canister samples were received on March 23, 2017. 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

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

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

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

Client Sample ID: SVE BLOWER INLET

Lab ID#: 1703429-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.3	6.6	4.8	25

Client Sample ID: SVE-1

Lab ID#: 1703429-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.3	9.7	5.0	37
m,p-Xylene	1.3	1.7	5.8	7.2

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Client Sample ID: SVE BLOWER INLET

Lab ID#: 1703429-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a032819**	**Date of Collection: 3/21/17 1:06:00 PM**	
Dil. Factor:	**2.54**	**Date of Analysis: 3/28/17 10:28 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	Not Detected	4.0	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	6.6	4.8	25
m,p-Xylene	1.3	Not Detected	5.5	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	130	Not Detected	520	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: SVE-1

Lab ID#: 1703429-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a032820**	**Date of Collection: 3/21/17 1:18:00 PM**	
Dil. Factor:	**2.67**	**Date of Analysis: 3/28/17 10:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	Not Detected	4.3	Not Detected
Ethyl Benzene	1.3	Not Detected	5.8	Not Detected
Toluene	1.3	9.7	5.0	37
m,p-Xylene	1.3	1.7	5.8	7.2
o-Xylene	1.3	Not Detected	5.8	Not Detected
Naphthalene	2.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	130	Not Detected	550	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1703429-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a032810**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/28/17 04:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: CCV

Lab ID#: 1703429-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a032806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/28/17 01:05 PM**	

Compound	%Recovery
Benzene	70
Ethyl Benzene	76
Toluene	70
m,p-Xylene	78
o-Xylene	81
Naphthalene	82
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCS

Lab ID#: 1703429-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a032804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/28/17 10:31 AM**	

Compound	%Recovery	Method Limits
Benzene	71	70-130
Ethyl Benzene	77	70-130
Toluene	73	70-130
m,p-Xylene	79	70-130
o-Xylene	84	70-130
Naphthalene	81	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1703429-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a032805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/28/17 12:40 PM**	

Compound	%Recovery	Method Limits
Benzene	63 Q	70-130
Ethyl Benzene	71	70-130
Toluene	66 Q	70-130
m,p-Xylene	73	70-130
o-Xylene	77	70-130
Naphthalene	72	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager CHRIS RHEA
Collected by: (Print and Sign) DANIELE PETERS [signature]
Company EES ENVIRONMENTAL Email CHRIS@EES-ENV.COM
Address 240 N. BROADWAY STE 203 City PORTLAND State OR Zip 97227
Phone 503.847.2740 Fax —

Project Info:
P.O. # —
Project # 1179-02
Project Name PLAID PANTRY #112

Turn Around Time:
☑ Normal
☐ Rush
specify ______

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SVE BLOWER INLET	1L2459	3-21-17	1306	TO-15 Gx, FULL LIST VOCs + N	30	8		
02A	SVE-1	1L1791	3-21-17	1318	TO-15 Gx, BTEX + N	30	8		

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Danielle Biume Peters 3-21-17 1700	[signature] EATL 03/23/17 1515
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes:
PLEASE CONFIRM ANALYSES WITH CHRIS RHEA.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No (None)	1703429

Form 1293 rev.11