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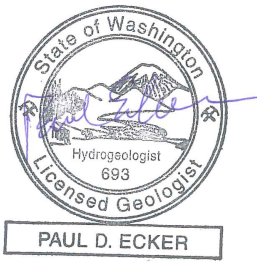
Technical Memorandum
Vapor Intrusion Assessment

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

From: Chris Rhea, LG and Paul Ecker, LHG

Date: May 18, 2017

Regarding: Plaid Pantries Store #112
1002 West Fourth Plain Boulevard
Vancouver, Washington
Ecology VCP File #SW1314
EES Project #1179-01



EES Environmental Consulting, Inc. has completed Tier 1 and Tier 2 Vapor Intrusion Assessment (VIA) activities at the Plaid Pantry (Plaid) Store #112 Site located in Vancouver, Washington (Figure 1). Remedial Investigation (RI) and interim cleanup actions are being conducted at this Site to address historic subsurface gasoline impacts as detailed in prior status reports (EES 2016). The most recent VIA tasks discussed in this memorandum were conducted to supplement Site RI activities as required under the Model Toxics Control Act (MTCA Chapter 173-340 and -360 WAC), and as detailed in the EES work plan dated May 23, 2016 and subsequent discussions with Aaren Fiedler of the Washington Department of Ecology's Voluntary Cleanup Program (Ecology VCP).

BACKGROUND

SITE CHARACTERIZATION STATUS

Gasoline contamination associated with historic facility operations originates in shallow soil at the fuel dispenser area, where an old previously unidentified (pre-Plaid) buried tank was discovered in 2011. Contaminants of Interest (COIs) at the Site include gasoline and related constituents which appear to be limited to shallow subsurface soil and vapors beneath the Property and the adjacent public sidewalk and Fourth Plain Boulevard right-of-way (ROW). Gasoline-related groundwater impacts are not known or suspected at this time.

As an interim remedy, Plaid installed a soil vapor extraction system (SVE) in the gasoline source area in 2013 and has operated the system since that time. Regular Interim Remedial Action Measure (IRAM) status reports are provided to Ecology. Preliminary RI data collected between 2012 and 2015 identified COIs in Site soil gas, including several locations near the Property building at levels exceeding default MTCA Method B screening criteria. As indicated by Ecology, the 2015 soil gas data require further assessment of potential vapor migration into the building, which is the subject of the VIA work described

in this memo. Table 1 summarizes soil gas data collected at the Site between 2012 and 2015. Figures 2a, 2b, and 3 illustrate pertinent Site layout and generalized soil vapor delineation features based on the 2015 investigation data.

Non-gasoline chlorinated solvents including tetrachloroethene (PCE) are also present in subsurface vapors at this Site, but are not known or suspected to be related to any current or past fueling or other operations conducted by Plaid. Chlorinate solvent have not been identified in soil during RI activities to date, and the source(s) of these VOCs is not currently known. As discussed with and confirmed by Ecology in a meeting on April 30, 2015, Plaid is not responsible for the release or cleanup of non-gasoline chemical impacts. As requested by Ecology, however, PCE testing was included in the most recent vapor intrusion assessment for the Property building.

REGULATORY SETTING

Ongoing Site investigation and cleanup activities are being conducted by Plaid in accordance with MTCA rules. Plaid enrolled in Ecology's Voluntary Cleanup Program (VCP) in 2013 to facilitate necessary response activities and has maintained ongoing communication and submitted pertinent technical documents to the Department for review and comment.

Because gasoline impacts identified at the Site exceed default MTCA Method A soil cleanup criteria and Method B vapor intrusion screening levels, Plaid began interim cleanup actions in 2013 before completion of the RI to control vapor migration and to begin mitigating identified gasoline impacts. The interim remedy includes ongoing SVE operations at the gasoline source area and is consistent with elements of an Interim Action as defined under MTCA (WAC 173-340-430), as supplemented by published guidance for evaluating potential vapor intrusion and the remediation of petroleum-contaminated sites (Ecology 2009, 2016a, 2016b). Interim action operations and performance trends are reported to Ecology on a regular basis.

Plaid intends to complete the RI and (to the extent required) prepare a focused Feasibility Study (FS) as directed by Ecology. As discussed with Ecology during 2015 and 2016, the results of this VIA work are intended to help resolve remaining RI data gaps such that the RI can be completed and final cleanup actions for gasoline impacts can be evaluated and implemented.

ECOLOGY VAPOR INTRUSION GUIDANCE

Ecology's 2009 draft vapor intrusion assessment guidance is currently being applied in Washington State, subject to 2016 revisions and supporting implementation guidance (see Ecology 2016a, 2016b). The published regulatory guidance establishes a general methodology for characterizing and evaluating the VI exposure pathway, and provides a decision matrix including triggers for supplemental investigation and cleanup tasks based on comparing Site-specific vapor concentrations to default numeric MTCA B soil gas and/or indoor air screening levels. Alternatively, for sites where screening data are below published criteria, the vapor intrusion pathway can generally be ruled out.

During 2015-2016, Ecology VCP Site managers confirmed the Department's opinion that the published VIA guidance is generally appropriate for this Site, and required Plaid to proceed with VIA

implementation based on available site characterization data indicating subsurface volatile contaminants may be present near the Property building. Ecology's request for VIA was based primarily on the following site contaminant characteristics.

- Identified source-area gasoline contaminants in soil and soil vapors include volatile constituents of potential human health concern, primarily benzene. The gasoline source area in vadose-zone soil is located approximately 50 to 70 feet south of the Property building. At the time of its technical review, Ecology guidance relied on a 100-foot lateral inclusion zone rule of thumb for determining whether buildings should be subject to vapor intrusion assessment (Ecology 2009).
- Soil gas data collected in 2015 indicated gasoline and constituent soil vapors approach the Property building. Benzene concentrations up to 100 micrograms per cubic meter (ug/m^3) were measured adjacent to the building, exceeding the preliminary screening level of 10.7 ug/m^3 by a factor of 10 (see Table 1 and Figure 3).
- Between 2012 and 2015, PCE was detected in subsurface vapors at concentrations up to 3,600 ug/m^3, exceeding the soil gas screening level for PCE by a factor of 10. The source of PCE at this site is unknown but not attributed to Plaid's operations.

OTHER CONSIDERATIONS, UNCERTAINTIES, AND VIA CHALLENGES

EES notes that several factors should be considered with regard to the challenges and uncertainties regarding Site-specific applicability of the VIA guidance in this case.

- The primary gasoline contaminant source that is the focus of this RI is located near the Property's southern margin, at distances greater than 30 feet from the building. Acknowledging that the most current Ecology VIA Implementation Memo was published and circulated in 2016 after this site-specific scope of work was requested by Ecology's VCP, we point out that current state and other implementation guidance documents promote a 30-foot (formerly 100 feet) horizontal separation distance extending from the edge of the petroleum source area to adjacent buildings for establishing a "lateral inclusion zone," beyond which VIA is generally not necessary (Ecology 2016b; ITRC 2014). Since site impacts are limited to vadose-zone soil near the southern Property boundary and no groundwater impacts are known or suspected, the recently-updated 30-foot rule is pertinent and should be considered in the evaluation of VIA findings as detailed in this report.
- The focus of VIA efforts is to evaluate subsurface vapor migration into buildings. However, multiple gasoline vapor sources contributing to ambient air quality surround the Property and Site building, including active fueling operations on the Property, heavy customer vehicle traffic adjacent to the building, busy urban roadways and an intersection with high traffic flow, and a populous urban and industrial/commercial-use neighborhood. Standard technical references including Ecology's own VIA guidance, urge caution when developing and interpreting indoor air quality data, particularly for (1) active fueling facilities and (2) urban facilities where many common ambient sources are present and distinct from subsurface contaminants. As discussed with Ecology, on-Site fueling activities and traffic activities result in considerable indoor and outdoor air quality impacts that may predominate and are difficult to discern from subsurface contaminant sources, resulting in a complicated and confounding VIA determination. Recent air toxics studies in Washington indicate that urban air quality is significantly impacted by common volatile chemicals in outdoor ambient air, including contaminants measured during

this VIA study at the subject Site such as benzene, naphthalene, carbon tetrachloride, and tetrachloroethene (WSDOH 2014). Older studies have quantified various hazardous air pollutants in the Vancouver area based on annual averaging data (SWCAA 2007). The 2016 site VIA results described in this report should be reviewed from the perspective of the Property's complex urban setting.

- Subsurface petroleum vapor concentrations are commonly affected and diminished by naturally-occurring aerobic conditions, which if present at the site may result in partial or complete biodegradation of fuel-related vapor contaminants. Ecology recognizes the potential for petroleum vapor intrusion to be mitigated by this mechanism, and biodegradation parameters are an important consideration in this VIA work scope. Non-gasoline vapors such as chlorinated solvents are less likely to be degraded under typical subsurface aerobic conditions (Ecology 2009, 2016b; EPA 2015a).

VAPOR INTRUSION ASSESSMENT

As directed by Ecology, EES and Plaid developed a written work plan to evaluate potential vapor intrusion conditions for the Property building (EES 2016). Following Ecology's approval of the VIA Work Plan and as authorized by Plaid and the Property owner, EES implemented the work plan during the period between June and September 2016. As specified in Ecology guidance, EES used a phased or "tiered" approach to VI evaluation, as follows.

- Tier 1 Assessment includes screening-level evaluation to determine whether subsurface contaminant conditions exist that could lead to indoor air vapor intrusion. Tier 1 soil gas samples were collected adjacent to the existing Property building nearest to the gasoline source area. These soil gas data were found to exceed various published MTCA Method B screening levels, triggering supplemental Tier 2 assessment.
- Tier 2 VIA characterization was conducted to support evaluation of possible vapor intrusion into the building's indoor air. This effort included simultaneous sampling of indoor and outdoor ambient air at the Property, measuring ambient barometric and wind conditions during the sampling event, and comparing ambient air quality to sub-slab soil vapor data collected immediately beneath the Property building's concrete floor slab.
- In an effort to establish baseline environmental conditions, Plaid's active SVE system (operating at the fueling area) was shut down one week prior to the Tier 1 and Tier 2 VIA sampling activities. The store building's HVAC system operated normally during this time.

TIER 1 VAPOR INTRUSION ASSESSMENT

Soil Gas Sampling Activities

EES performed Tier 1 VIA sampling on June 22, 2016. Sampling activities included the collection of five soil gas samples at locations immediately south of the existing Property building, as illustrated on Figure 4. Field sampling methodologies used for the assessment were detailed in the Ecology-approved work plan (EES 2016) and are summarized below. Field sampling forms are presented in Attachment A.

EES collected four soil gas samples from temporary soil gas borings (S-33 through S-36) advanced to terminal depths of five feet. Drilling activities were performed using direct-push drilling equipment

operated by Cascade Drilling of Clackamas, Oregon. A fifth soil gas sample was collected from existing vapor monitoring well S-31, which is screened from 5 to 10 feet below ground surface (bgs).

Discrete soil gas samples were collected using specially-designed soil-gas sampling equipment and laboratory-certified six-liter Summa canisters. Soil gas sampling point installation, sampling equipment leak detection testing using helium tracer gas, field quality control verification, and soil gas sampling methods were performed in accordance with EES protocols and Ecology VI guidance. The five soil gas samples were submitted to Eurofins Air Toxics (Folsom, California) for laboratory analysis of volatile organic compounds (VOCs) by EPA Method TO-15 Hi/Lo SIM.

Laboratory Analytical Results

Laboratory analytical results for the five Tier 1 soil gas samples are reported below and summarized in Figure 4 and Table 2. Laboratory analytical reports and chain of custody documents are presented in Attachment B.

Gasoline and Related Vapors

- Gasoline was detected in soil gas samples S-33, S-34, and S-36 at concentrations ranging from 1,100 to 2,700 ug/m^3. Gasoline was not detected in samples S-31 or S-35. MTCA does not provide a numeric soil gas screening level for gasoline.
- Benzene was detected in four of the five soil gas samples at concentrations ranging from 4.6 to 14 ug/m^3. Among these detected values, benzene concentrations in soil gas samples S-33 and S-36 (14 and 12 ug/m^3, respectively) slightly exceeded the MTCA Method B soil gas screening level of 10.7 ug/m^3.

Non-Gasoline Vapors

- PCE in four of the five soil gas samples was measured at concentrations ranging from 4.6 to 27 ug/m^3, well below the corresponding MTCA Method B screening level of 321 ug/m^3. The sample collected at S-35 indicated a PCE concentration of 3,500 ug/m^3, which exceeds the MTCA Method B screening level by a factor of about 10.
- Carbon tetrachloride was detected in sample S-31 at a concentration of 0.76 ug/m^3, significantly below the MTCA Method B screening level is 13.9 ug/m^3.

Several other VOCs, including some common gasoline-related constituents, were detected in one or more of the soil gas samples at concentrations that do not exceed their respective MTCA Method B screening levels.

Based on Tier 1 findings indicating exceedances of MTCA soil gas screening levels at several locations near the Property building, potential vapor intrusion could not be ruled out and Tier 2 assessment was triggered as required under MTCA.

Subsurface Biodegradation Conditions

Common petroleum biodegradation parameters (oxygen, carbon dioxide, and methane) in soil vapor were measured at each soil gas sample location (S-31, S-33 through S-36) during Tier 1 activities on June 22, 2016. Oxygen (18.7 to 19.7%) and carbon dioxide (1.3 to 2.8%) were measured at levels indicating strong oxidation conditions. No methane was detected at any of the five locations. Recent technical

literature (ITRC 2014; EPA 2015b), indicate that oxygen levels greater than 1-2% are supportive of active biodegradation of petroleum vapors. Based on the Tier 1 data collected at the five soil gas locations, subsurface conditions near the Property building appear to be conducive to natural aerobic biodegradation of gasoline. Site biodegradation data is summarized on Table 3.

TIER 2 VAPOR INTRUSION ASSESSMENT

EES conducted Tier 2 VIA activities in August and September 2016 to further evaluate potential indoor air vapor intrusion to the Property building, as described below.

Building Construction and Use Summary

EES evaluated building conditions and store inventories on August 2, 2016 to document basic construction and layout, and to facilitate development of a conceptual site and exposure model (CSM). This information was used to support and implement the Tier 2 vapor sampling and analysis plan for the Property building.

The Property is located at the northwest corner of Kauffman Avenue and West Fourth Plain Boulevard in Vancouver, Washington (Figure 1). The 0.26-acre Property is owned by Louise Piacentini and is occupied by a single one-story commercial building located on the northern portion of the Property. At the time of EES work, building tenants included a Plaid convenience market with retail gasoline station, and a Domino's Pizza carry-out restaurant (Figure 2). The building was constructed in 1982, and has a footprint of approximately 4,350 square feet. The building foundation consists of concrete stem walls and slab-on-grade floor (no basement or crawlspace is present). The remainder of the Property consists of an asphalt covered parking and fueling area, with a single covered fuel dispenser island near the southern boundary of the Property.

Based on field observations made during previous RI drilling activities at the Property, subsurface soil beneath the building likely consists of silts and silty sands to a depth of approximately 10 to 20 feet bgs, underlain by sands and gravels to a depth of 40 feet bgs. Groundwater has not been encountered at maximum Site exploration depths exceeding 40 feet, and is not anticipated within at least 60 to 80 feet of the ground surface in the Site vicinity based on topography. The inferred migration pathway for gasoline vapors would be from vadose zone soil to indoor air. Additionally, underground utility trenches and conduits serve the building (Figure 2b) and these underground features represent potential vapor migration pathways which have previously been evaluated. The source(s) of identified PCE vapors at this site is not currently known but is not attributed to Plaid's operations.

Building heating/cooling/ventilation is provided by a forced-air heat pump system, with mechanical components and air intake located on the roof of the building and inside the Plaid maintenance room. Ventilation ducts are routed through the ceiling of the building, with system air forced through approximately two HVAC registers located in the Plaid store routed through walls near the ceiling, and approximately two HVAC registers located in the Domino's store routed through the ceiling. No specific operational information regarding HVAC system design or operational specifications was provided to EES by the building owner.

A total of five interior rooms (Plaid store, Domino's Pizza work area, two restrooms, and Plaid's maintenance room) were identified by EES. Building survey forms are presented in Attachment C. No locked drawers or cabinets were encountered during the survey.

EES attempted to identify likely sources of volatile chemicals that could represent indoor or interference detections for planned indoor air sampling. According to Ecology vapor intrusion guidance, any substances that contain VOCs should be removed, isolated, or controlled as much as possible prior to and during air sampling, and the area should be well-ventilated before sampling begins. Ecology further states that "failure to identify and then remove or isolate indoor VOC emitters can lead to false indication of VI (vapor intrusion) impact." Several products containing VOCs were identified during the building survey and the store operators were advised to remove all products and follow the provided occupant instructions (Attachment C). However, some of these VOC-containing products were not removed prior to vapor/air sampling. Based on a review of product labels and/or available information for the products from manufacturers' safety data sheets (MSDS) available online, the identified products generally appear not to contain benzene or PCE. Other common building materials containing VOCs such as carpeting, adhesives, flooring, paints and finishes, vinyl or plastic surfaces, fire retardants, roofing compounds, etc., may be present at the building.

Utilities identified at the building include electric power, potable water, and sanitary sewer. Various underground utility corridors service the building and surrounding Property as illustrated in Figure 2b.

Ambient Air and Sub-slab Soil Vapor Sampling Activities

Following Site inventory/survey work, EES performed Tier 2 VIA sampling activities at the Site on September 21 and 22, 2016, respectively. In an effort to avoid cross-contaminating sensitive air/vapor samples, EES collected non-disruptive baseline indoor and outdoor air samples during the first day, followed by sub-slab soil vapor sampling on the second day. All indoor and outdoor air samples were collected using eight-hour flow controllers, intended to represent a typical occupational work-day shift when greatest potential inhalation exposures and cross-slab atmospheric pressure differentials are anticipated. Sub-slab samples were collected using flow controllers over a 30-minute sampling period. Sampling locations are described below and illustrated on Figure 5.

Field sampling methodologies used for the assessment were detailed in the Ecology-approved Work Plan (EES 2016). Discrete air and sub-slab vapor samples were collected using laboratory-certified six-liter Summa canisters. Sampling equipment leak detection testing using helium tracer gas (where applicable for sub-slab sampling), field quality control verification and air sampling methods were performed in accordance with EES protocols and Ecology VIA guidance. The three sub-slab soil vapor and nine indoor/outdoor air samples were submitted for laboratory analysis of low level VOCs by EPA Method TO-15 Hi/Lo SIM. Field sampling forms are presented in Attachment A.

Outdoor Air

EES collected eight-hour integrated ambient outdoor air samples at building entrances, rooftop and HVAC intake locations, and upwind, crosswind, and downwind perimeter locations. Sample locations were determined based on the predominant wind direction on the day of sampling, which was from the

northwest (i.e. a northwesterly wind). Wind direction and barometric pressure was measured during the complete eight-hour sampling period using a weather station and data-logger. Air sampling heights were within the average breathing zone of three to six feet, with the exception of the HVAC system intake sample which was collected at a height of two feet above the roof surface.

Outdoor air samples were collected as follows:

- A-4 – Rooftop: Domino's Pizza HVAC intake vent.
- A-5 – Rooftop: northwest (upwind) corner of the building.
- A-6 – Immediately west of the Domino's Pizza entrance to the building.
- A-7 – Immediately west of the Plaid store entrance to the building.
- A-8 – Western Property boundary, up/cross-wind from the building.
- A-9 – Southeastern corner of the Property, adjacent to the fueling area and generally downwind from the building.

Indoor Air

EES collected eight-hour integrated indoor air samples at three locations within the Property building. Air sampling heights corresponded with the average breathing zone of three to six feet above the floor surface.

Indoor air samples were collected as follows:

- A-1 – Main work area in the Domino's Pizza portion of the building.
- A-2 – Main store area in the Plaid portion of the building.
- A-3 – Plaid maintenance room near a utility penetration through the concrete slab foundation of the building.

Sub-Slab Soil Vapor

EES collected three sub-slab soil vapor samples at locations corresponding with the previous day's indoor air samples. Sub-slab samples were collected from immediately below the building's concrete slab foundation using a 30-minute flow controller.

- A-1SS – Main work area in the Domino's Pizza portion of the building.
- A-2SS – Main store area in the Plaid portion of the building.
- A-3SS – Maintenance room near utility penetrations in the east portion of the building.

Barometric Pressure and Wind Direction Measurements

EES conducted barometric pressure monitoring to document site-specific conditions throughout the eight-hour indoor/outdoor air sampling and 30-minute sub-slab soil vapor sampling events. EES collected barometric pressure data from separate, co-calibrated instruments located in the vicinity of the three indoor air sampling locations. In addition, EES collected simultaneous barometric pressure data from one outdoor station located on the roof of the building. Barometric pressure monitoring was

conducted using a Davis Vantage Pro 2 wireless weather station and Kestrel 4500 Pocket Weather Trackers for temperature/humidity/barometric pressure data logging.

As summarized in Table 5, the indoor barometric pressure measurements within the three areas of the building interior were consistent with and similar to the outdoor barometric pressure measured throughout the sampling period. The average indoor/outdoor barometric pressure difference was virtually neutral (0.00181), indicating no discernable gradient between indoor and outdoor air pressures at the time of this sampling event.

The weather station collected 117 automated wind measurements during the eight-hour indoor/outdoor air sampling period on September 21, and 47 wind measurements the following day during the sub-slab soil vapor sampling period. For the air sampling period on September 21, the wind was predominantly from the north-northwest with an average velocity of 4 miles per hour (mph). Wind directions fluctuated on September 22 between the southeast and southwest, with an average velocity of 1 mph from the southeast. Based on these data, the Plaid building was generally up-wind or cross-wind from the on-site gasoline fueling area during the indoor/outdoor air sampling activities, and slightly downwind of the fueling area during sub-slab sampling. Prevailing winds during this period were generally light, and ambient airflow through the building was promoted by both the HVAC system and heavy in-and-out retail foot-traffic from frequent fueling and retail store customers. Weather station data are presented in Attachment D.

Laboratory Analytical Results

Volatile organic compounds measured in ambient outdoor air at the subject Property, where identified, generally were present at relatively low concentrations that are consistent with typical urban background levels previously documented for the Vancouver area (SWCAA 2007). Both upwind and downwind samples contained gasoline and related constituents, and all outdoor samples contained nearly identical concentrations of carbon tetrachloride. Several volatiles were detected at slightly higher outdoor air levels compared to the published 2007 background data, as expected for an active fueling station located in a busy urban roadway setting. Collectively, the outdoor air data confirm ambient background volatiles are present at the site (including upwind locations) at concentrations that in some cases approach or marginally exceed MTCA air screening criteria.

Indoor air testing identified gasoline-related and other volatiles at concentrations that were generally similar to or greater than those observed for adjacent outdoor locations on the same day. However, indoor air benzene concentrations both at the Plaid store and the Dominos restaurant were very similar to the outdoor air concentrations as measured at the corresponding building entrances, with the Plaid store indoor/outdoor benzene data being nearly identical (see Figure 5).

Sub-slab soil gas sample contaminant concentrations were uniformly below MTCA vapor intrusion screening criteria. The three sub-slab samples (collected at building locations corresponding to the indoor air samples) indicated vapor concentrations that were variable and either greater or less than indoor air concentrations for the same compounds, but in some cases included other chemicals (notably PCE) that were not identified in indoor air. Based on the comparison of sub-slab to indoor air data, no obvious or discernable vapor intrusion across the building slab has been identified.

Laboratory analytical results are described below and summarized in Figure 5 and Table 4. Laboratory analytical reports and chain of custody documents are presented in Attachment B.

GASOLINE AND RELATED VAPORS

- The site's greatest gasoline vapor concentrations were measured in all three indoor air samples, at concentrations ranging from 530 to 980 ug/m^3. Gasoline in outdoor air samples A-6, A-8, and A-9 was measured at concentrations ranging from 64 to 350 ug/m^3. Gasoline was present both upwind (64 to 110 ug/m^3) and downwind (350 ug/m^3) from the building and fueling areas. Gasoline was not detected in any of the sub-slab soil vapor samples, although elevated method reporting limits over 1,000 ug/m^3 were indicated by the laboratory. No sub-slab soil vapor or indoor air screening levels are established by Ecology for gasoline.
- Benzene was detected in all three indoor air samples at concentrations ranging from 0.93 to 1.5 ug/m^3 (averaging 1.3 ug/m^3), and in outdoor air samples A-6, A-7, A-8, and A-9 at concentrations ranging from 0.30 to 3.3 ug/m^3 (averaging 0.94 ug/m^3). As with gasoline, benzene in ambient outdoor air was measured at a greater concentration for the downwind sampling location adjacent to the fueling area and roadway intersection (3.3 ug/m^3) compared to two upwind locations (both 0.30 ug/m^3). Sub-slab benzene concentrations between 4.7 and 5.0 mg/m^3 were reported for samples A-1SS and A-2SS but were not detected at A-3SS, with a combined sub-slab sample average of 3.8 ug/m^3. The following lines of evidence indicate no discernable vapor intrusion is identified for the Property building based on this VIA data.
  - Among the three indoor air samples, benzene concentrations averaging 1.3 ug/m^3 uniformly exceeded the MTCA air screening level of 0.32 ug/m^3. For reference, EPA's median indoor air background level for benzene is 2.4 ug/m^3 (EPA 2008) and Vancouver's average ambient outdoor air benzene concentration is 0.98 ug/m^3 (SWCAA, 2007; see Table 4). The site's outdoor air average benzene concentration of 0.94 ug/m^3 is nearly identical to the published background concentration of 0.98 ug/m^3 reported for the Vancouver area in 2007.
  - Based on MTCA guidance, the net "corrected" value for site-specific indoor air is the difference between indoor and outdoor air concentrations, which at this site ranges between 0.32 ug/m^3 (1.3 – 0.98 = 0.32) and 0.36 ug/m^3 (1.3 – 0.94 = 0.36), depending on whether the published average for Vancouver or the site-specific outdoor average concentrations are used for correction. This range of corrected indoor air values is essentially equivalent to the MTCA cleanup level of 0.32 ug/m^3.
  - With a maximum sub-slab benzene concentration measured at 5.0 ug/m^3, none of the Property building's sub-slab samples exceeded MTCA's protective soil gas screening level of 10.7 ug/m^3 for vapor intrusion.
  - The EPA's standard technical guidance as adopted by Ecology indicates that vapors intruding into indoor air across a floor slab would be reduced by an attenuation factor of 0.03 based on high-confidence empirical statistics derived from many sites (EPA 2015a and 2015b). This very protective attenuation factor is the basis for MTCA's calculated soil gas to indoor air screening level (the indoor air cleanup level of 0.32 ug/m^3 divided by 0.03 = the sub-slab soil gas screening level of 10.7 ug/m^3). Applying this attenuation factor to site-specific conditions, the maximum measured sub-slab benzene concentration of 5 ug/m^3 corresponds to an attenuated indoor air concentration attributed to vapor intrusion

of 0.15 ug/m^3, which is more than two times below the air cleanup level of 0.32 ug/m^3 (i.e., 5 * 0.03 = 0.15).

- Other fuel-related volatiles were identified in indoor and outdoor air at relatively low concentrations, but (like gasoline and benzene) do not appear to be associated with vapor intrusion from below the building. For example, naphthalene was detected at concentrations above MTCA screening criteria in all indoor air and outdoor air samples collected during the Tier 2 assessment. However, naphthalene was not detected in any of the three sub-slab soil vapor samples (analytical reporting limits were greater than for air samples), and these results are consistent with Tier 1 findings where naphthalene also was not identified in any of the five soil gas samples collected near the Property building. The source of naphthalene and other volatiles identified in indoor and outdoor air was not determined but is consistent with urban background and vehicle emissions that are prevalent in the site vicinity.

NON-GASOLINE VAPORS

- PCE was not detected in any indoor air samples. Where detected in two of the 12 vapor samples collected during this VIA study, PCE was measured at relatively low concentrations approaching laboratory analytical reporting limits, and below regulatory screening limits. PCE was detected in outdoor air sample A-4 at a concentration of 0.31 ug/m^3, and in sub-slab soil vapor sample A-1SS at a concentration of 23 ug/m^3. These site-measured values are significantly below MTCA screening levels for indoor air and sub-slab soil vapors, which are 9.62 and 321 ug/m^3, respectively. Although the 2007 published data for ambient outdoor air quality in Vancouver does not quantify PCE, the national median background indoor air and outdoor air concentrations for PCE are 0.7 and 0.237 ug/m^3, respectively. Site data from this 2016 VIA work are generally consistent with the national ambient air quality data, as would be expected for this urban setting.
- Carbon tetrachloride was not detected in sub-slab soil gas, but was identified in all indoor and outdoor air samples at very consistent concentrations, ranging from 0.46 to 0.54 ug/m^3 indoors, and ranging from 0.47 to 0.50 ug/m^3 outdoors. The MTCA screening level for this compound in indoor air is 0.417 ug/m^3, and the national median background indoor air and outdoor air concentrations are 0.5 and 2.7 ug/m^3, respectively.
  - The average indoor air concentration of carbon tetrachloride measured during this study was 0.49 ug/m^3. When corrected for average ambient outdoor air levels at the subject property (0.49 ug/m^3), the resulting indoor air concentration was negligible, indicating that indoor air quality is equivalent to ambient outdoor conditions regarding this compound.
  - Because carbon tetrachloride was uniformly not detected among three sub-slab soil gas samples, no vapor intrusion related to this chemical is suspected.

As summarized on Table 4, several other VOCs, including various common gasoline constituents, were detected in one or more of the sub-slab vapor samples. However, those compounds were measured at concentrations that are far below MTCA screening criteria and no associated vapor intrusion is therefore anticipated based on these data.

Corrected Indoor Air Results

Per Ecology Vapor Intrusion Guidance (Ecology 2009, 2016a, 2016b), the focus of the vapor intrusion assessment is limited to subsurface contributions to indoor air contamination (if any), and not on general indoor air contamination which originates from other ambient and/or building material sources. Since most measurements of indoor air vapor concentrations are expected to be affected by "background" sources, Ecology recommends that measured indoor air concentrations be corrected for this contribution. Therefore, as noted in the preceding data discussion, EES calculated the difference between indoor air and ambient outdoor air concentrations to evaluate potential vapor intrusion contribution compared to acceptable indoor air levels. For comparison to regional air quality conditions, Vancouver-area outdoor air data was used to correct indoor air concentrations, where available (SWCAA 2007). Corrected indoor air concentrations are discussed above and shown on Table 6.

Findings indicate that corrected indoor air concentrations, where applicable, are comparable to or below default MTCA Method B indoor air screening levels. The source of identified indoor air contaminants does not appear to originate from under-slab vapors associated with the known gasoline release which is the subject of this Remedial Investigation, based on the distribution and relative concentrations of sub-slab vapors compared to indoor air vapors. The collective lines of evidence presented above indicate that vapor intrusion does not discernably contribute to indoor air quality.

Biodegradation Parameters

EES collected biodegradation parameters (oxygen, carbon dioxide, and methane) at each of the three sub-slab vapor sampling locations (A-1SS, A-2SS, and A-3SS) during sampling activities on September 22, 2016. Measured levels of oxygen (19.5 to 19.9%) and carbon dioxide (0.3 to 0.6%) demonstrate oxygen-enriched conditions and are consistent with Tier 1 soil gas observations adjacent to the building. No methane was found at any of the three sub-slab or soil gas locations. In general, oxygen concentrations in sub-slab soil vapor approach ambient atmospheric levels, and are conducive to natural aerobic degradation of petroleum vapors. Subsurface biodegradation data is summarized on Table 3.

Conceptual Site Model

The CSM evaluates current and reasonably likely future Site conditions, and identifies potential sources of hazardous substances, potentially affected media, and potential migration and exposure pathways for anticipated human and ecological receptors. The CSM is a required element of Site cleanup planning (Ecology 2011).

The CSM for the Site was presented in the Interim Remedial Measures Status Report (EES 2014). A diagram of the CSM is provided as Figure 6. Tier 2 activities were conducted, in part, to determine the need for revising the CSM. Based on field observations and sampling conducted as part of the Tier 2 investigation, the CSM presented in the Interim Remedial Measures Status Report accurately characterizes potential sources of hazardous substances, potentially affected media, and potential migration and exposure pathways for anticipated human and ecological receptors. Current and potential future human receptors include:

- Commercial Store & Restaurant Workers: employees/workers/vendors/tenants (typical work shift exposures).
- Store & Restaurant Customers: members of the public, including children (brief exposures).
- Construction Workers: personnel temporarily working at the Site during maintenance or construction activities (typical work shift exposures but for less than one year).
- Trench or Excavation Workers: personnel temporarily working at the Site, and conducting activities that involve excavation and/or trenching for utility work (typical work shift exposures but for less than one month).

No ecological receptors are known or suspected at the Site. Furthermore, terrestrial ecological exposure is considered unlikely based on the Site's paved setting based on a Terrestrial Ecological Evaluation conducted in 2014 (EES 2014).

Identified complete exposure pathways will be detailed in a future Remedial Investigation report.

CONCLUSIONS AND RECOMMENDATIONS

As directed by Ecology in 2016, Plaid conducted a vapor intrusion assessment to evaluate possible underground vapor migration into indoor air at the Property building. The initial Tier 1 VIA soil gas sampling was conducted in June 2016 at five locations adjacent to the Property building, with findings indicating the presence of subsurface gasoline-related and non-gasoline vapors at concentrations exceeding regulatory screening criteria. Based on those findings, follow-up Tier 2 VIA tasks were conducted in September 2016 to further evaluate whether site-related soil vapors may be migrating into the Property building and affecting indoor air quality. Tier 2 VIA work included sampling and analyzing soil gas vapors from three widespread locations immediately below the building slab, and comparing those data to indoor air and ambient outdoor air samples.

The findings of this VIA indicate no discernable vapor intrusion conditions were observed. Relatively low concentrations of various chemicals, including gasoline and non-gasoline volatiles, were identified in indoor and outdoor air at the subject property, but the presence of these chemicals in air is not attributed to vapor intrusion from below the building.

- Sub-slab gasoline and related constituent vapor concentrations (including benzene, EDB, and naphthalene) measured in September 2016 were either not detected or were measured at concentrations below MTCA soil gas screening criteria. Where detected, the Tier 2 sub-slab concentrations of gasoline-related compounds were lower than Tier 1 soil gas concentrations measured adjacent to the building (and closer to the gasoline source area), which would be expected as petroleum vapor concentrations degrade and diminish with increasing distance from the source area.
- PCE and other non-gasoline volatiles were generally not detected in Tier 2 sub-slab soil gas. Where detected at one of the three sub-slab locations, PCE (23 ug/m^3) was far below the corresponding MTCA soil gas screening level of 321 ug/m^3, and much diminished compared to the maximum identified Tier 1 soil gas concentration of 3,500 ug/m^3. The source of non-gasoline volatiles in Site soil gas has not been confirmed but is not attributed to Plaid's current or historical retail gasoline fueling operations at this property.

- Indoor air samples from the Plaid and Domino's building and outdoor air samples collected at the Property in September 2016 identified gasoline-related vapors at levels that in some cases marginally exceed Ecology screening criteria for indoor air. However, the sources of those vapors (1) do not appear to originate from under the building where no significant sub-slab vapors were identified, and (2) are likely associated with widespread ambient urban air quality and normal retail fueling operations at the Property.
- Because this is a self-service fueling station, customers and employees frequently walk between the fueling area and the store interior, and fuel vapors are expected to be present both indoors and outside the store building. Building materials and retail inventory may also contribute to the observed air quality conditions. A neutral atmospheric pressure gradient between indoor and outdoor air indicates no obvious preferential airflow, although some slight vapor accumulation inside the building may occur based on the observed air sampling data.

Current literature indicates that concentrations of benzene, PCE, and other volatile contaminants in indoor and outdoor air in typical urban environments are comparable to concentrations measured at the Site during this Tier 2 VIA study (see Table 6). Although EES is not aware of a formal background indoor or outdoor air VOC evaluation at the subject Site or (since 2007) in the Vancouver area, many published studies provide empirical data that can be used to approximate the reasonable bounds of background indoor and outdoor air concentrations in similar localities (DEQ 2006; Ecology 2009; EPA 1998, 1999, 2002, 2006, 2008, 2015; NYSDOH 2006; CalARB 2001; ITRC 2014). Based on these and other published studies, indoor air background concentrations are frequently observed to be greater than values reported for outdoor air, likely due to the contribution of common indoor air sources of volatile chemicals (EPA 2008; EPRI 2005).

Based on the findings of this VIA work at the Plaid facility, no evidence of gasoline-related vapor intrusion from subsurface contaminants into the building has been identified. Following discussion with Ecology, the results of this investigation will be used to support completion of the Remedial Investigation, which (subject to Ecology input) we expect will be completed in 2017.

ATTACHMENTS

Figure 1 – Site Location
Figure 2a – Site Features
Figure 2b – Utility Layout
Figure 3 – Soil Gas Concentrations (August-September 2015)
Figure 4 – Tier 1 VIA Soil Gas Analytical Results (June 22, 2016)
Figure 5 – Tier 2 VIA Sub-Slab, Indoor, and Outdoor Air Analytical Results (September 21-22, 2016)
Figure 6 – Conceptual Site Model

Table 1 – Soil Vapor Analytical Results – VOCs (ug/m^3)
Table 2 – Tier 1 VIA Soil Gas Analytical Results – VOCs (ug/m^3)
Table 3 – Biodegradation Parameter Data
Table 4 – Tier 2 VIA Sub-Slab, Indoor, and Outdoor Air Analytical Results– VOCs (ug/m^3)
Table 5 – Barometric Pressure (inches)
Table 6 – Tier 2 VIA Corrected Indoor Air Results (ug/m^3)

Attachment A – Field Sampling Forms
Attachment B – Laboratory Analytical Reports and Chain of Custody Forms
Attachment C – Building Survey Forms
Attachment D – Weather Station Data

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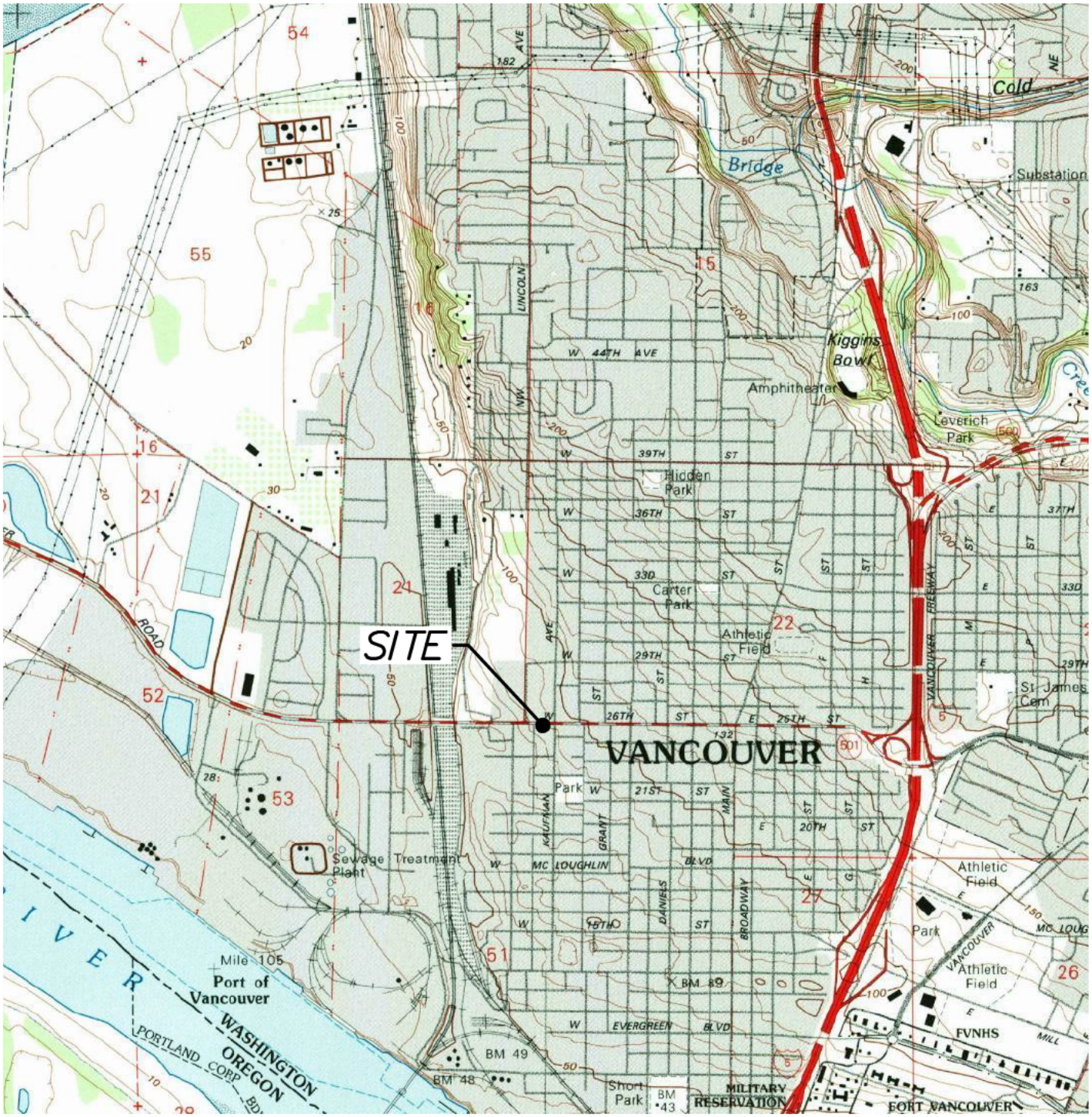
Figures



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

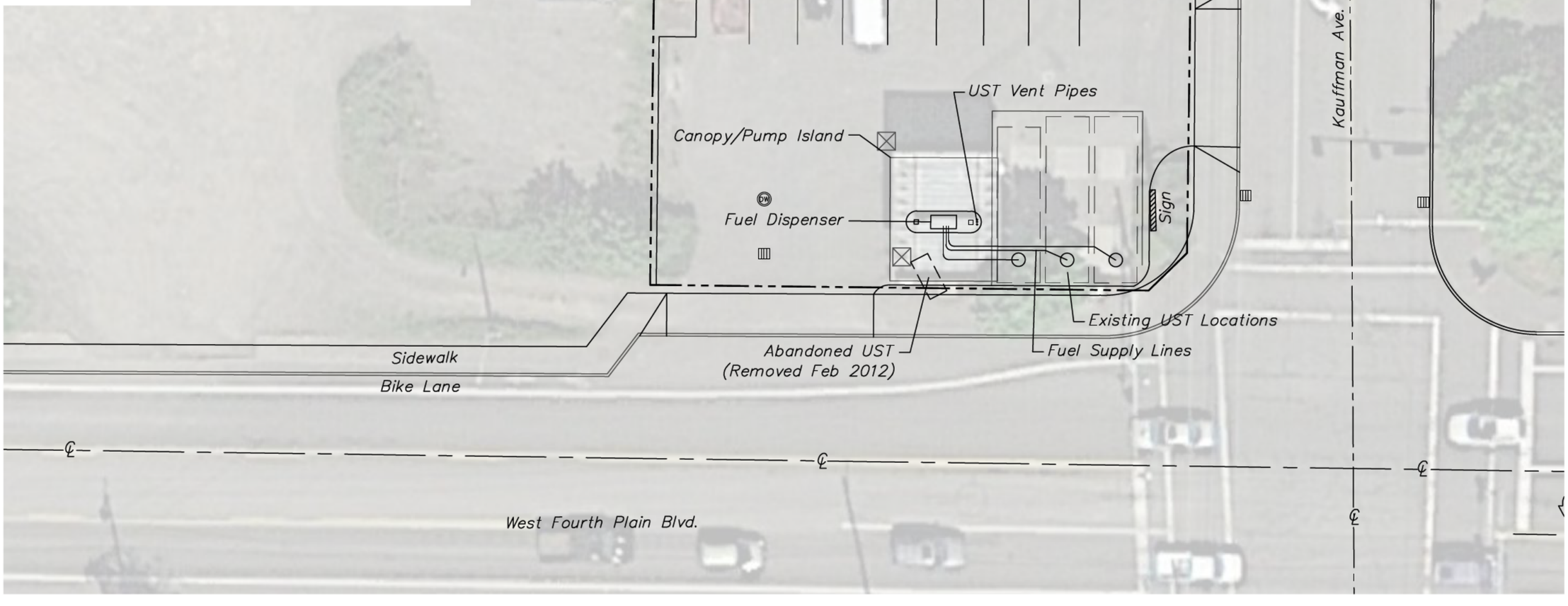
- Property Boundary
- Roadway Centerline
- Catch Basin
- Dry Well
- Vault

SITE FEATURES ARE APPROXIMATE

APPROXIMATE SCALE IN FEET

0 10 20 40

N



DATE:	1-16-17
FILE:	1179-01
DRAWN:	JJT
APPROVED:	CR
PROJECT NO.	1179-01
FIGURE NO.	2A

SITE FEATURES

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LEGEND

- Property Boundary
- Roadway Centerline
- Catch Basin
- Dry Well
- Vault
- Water Line
- Sanitary Sewer
- Storm Sewer
- Power
- Natural Gas
- Unknown Utility
- Fiber Optic
- Arrows Indicate Utility Flow Direction Where Known
- Water Shutoff Valve
- Sewer Cleanout

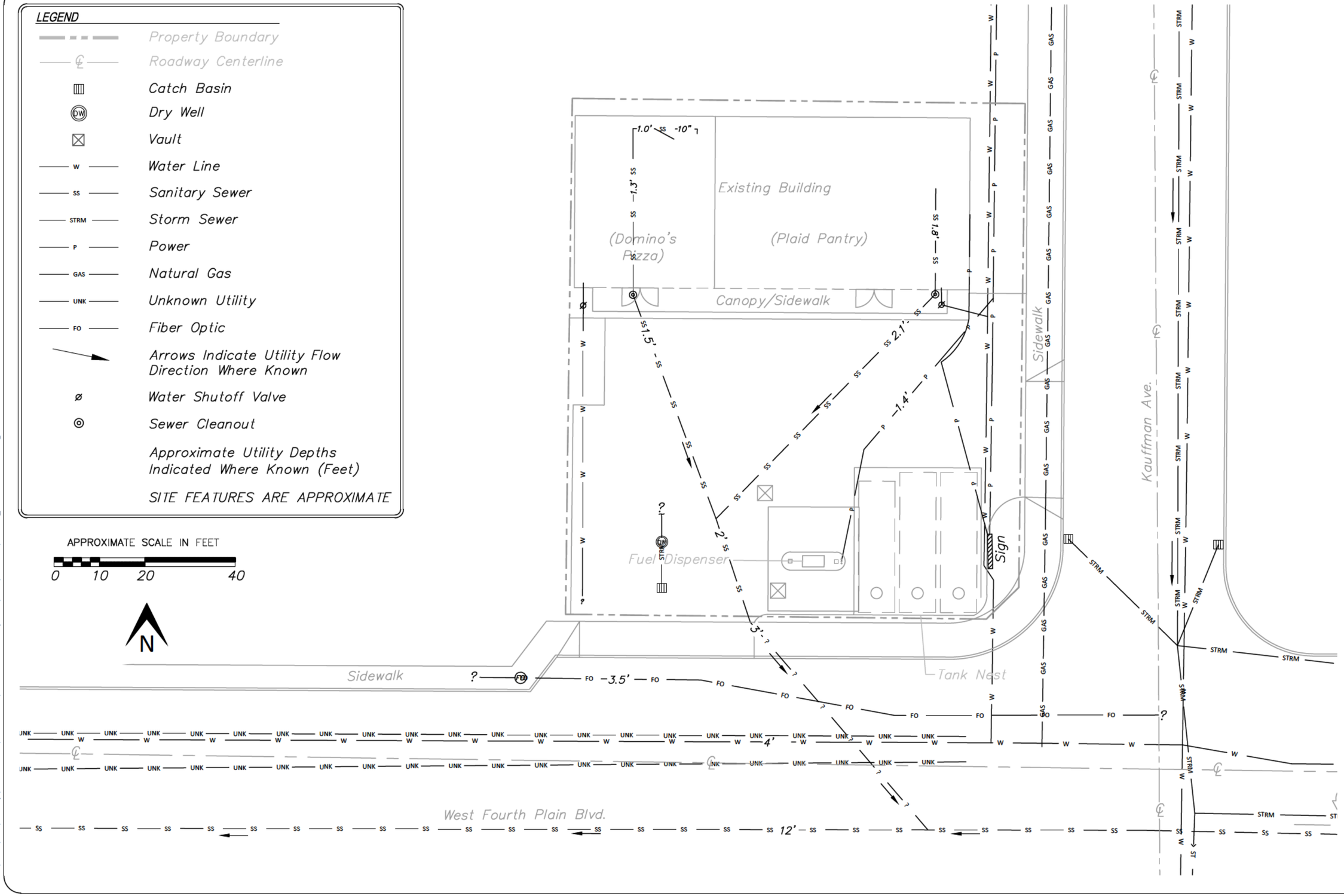
Approximate Utility Depths Indicated Where Known (Feet)

SITE FEATURES ARE APPROXIMATE

APPROXIMATE SCALE IN FEET

0 10 20 40

N



DATE:	1-16-17
FILE:	1179-01
DRAWN:	JJT
APPROVED:	CR
PROJECT NO.	1179-01
FIGURE NO.	2B

SITE FEATURES AND UTILITY LAYOUT

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VANCOUVER, WA.

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LEGEND

- Property Boundary
- Vault
- SVE Piping
- Shallow Soil Vapor Sample (5' bgs, Aug 2012)
- Deep Soil Vapor Sample (15' bgs, Aug 2012)
- 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)
- S-21 — Soil Vapor Sample (5' bgs)
- S-32 — Utility Vapor Sample (Various Depths)
- G = Gasoline
- B = Benzene
- * = Samples Collected During Active SVE Operations in August 2015. All Other Data Shown Collected in September 2015)
- 10 — Approximate Benzene Vapor Isoconcentration Contour (ug/m³)

Results in micrograms per cubic meter (ug/m³)

SITE FEATURES ARE APPROXIMATE

N

APPROXIMATE SCALE IN FEET

0 15 30

Existing Building

(Domino's Pizza)

(Plaid Pantry)

Canopy/Sidewalk

Sidewalk

Kauffman Ave.

West Fourth Plain Blvd.

S-21 G=7,200 B=100

S-31 G=740 B=5.4

S-29 G=4,600U B=36U

S-22 G=8,600 B=140

S-30 G=560U B=4.3U

S-23 G=2,000 B=20

S-28 G=570U B=4.4U

SVE-5* G=530U B=4.1U

SVE-4* G=520U B=4.1U

SVE-1* G=8,600 B=19

SVE-2* G=550U B=4.3U

SVE-3* G=3,600 B=4.3U

S-27 G=540U B=4.2U

S-24 G=520U B=4.7

B-18 G=17,000 B=3.9U

B-17 G=4,900,000 B=120

S-14 G=8,600 B=130

S-15 G=46,000 B=500

S-16 G=5,000 B=130

S-32 (5 ft) G=550U B=4.3U

S-25 G=600 B=5.9

S-26 G=560U B=4.4U

S-20 G=540U B=4.5

S-17 (4 ft) G=590U B=4.6U

S-18 G=580U B=4.5U

S-19 (1.3 ft) G=540U B=4.2U

DATE:	2-15-17
FILE:	1179-01
DRAWN:	JJT
APPROVED:	CR
PROJECT NO.	1179-01
FIGURE NO.	3

SOIL VAPOR CONCENTRATIONS
(AUGUST-SEPTEMBER 2015)

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LEGEND

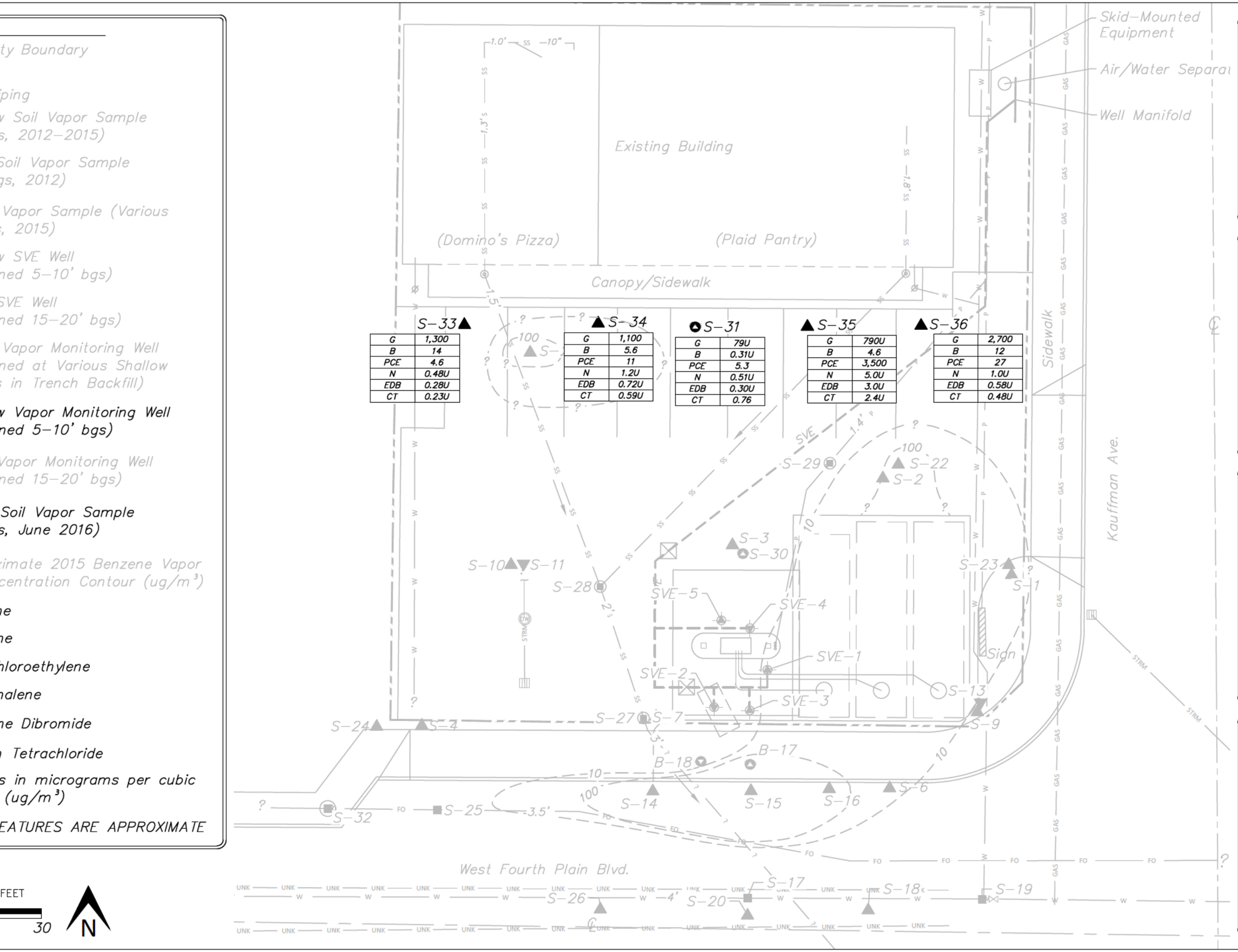
- Property Boundary
- Vault
- SVE Piping
- S–3 ▲ Shallow Soil Vapor Sample (5' bgs, 2012–2015)
- S–11 ▼ Deep Soil Vapor Sample (15' bgs, 2012)
- S–32 ■ Utility Vapor Sample (Various Depths, 2015)
- SVE–1 ⊕ Shallow SVE Well (Screened 5–10' bgs)
- SVE–2 ⊕ Deep SVE Well (Screened 15–20' bgs)
- S–28 ▣ Utility Vapor Monitoring Well (Screened at Various Shallow Depths in Trench Backfill)
- S–31 ◘ Shallow Vapor Monitoring Well (Screened 5–10' bgs)
- B–18 ▼ Deep Vapor Monitoring Well (Screened 15–20' bgs)
- S–33 ▲ Tier 1 Soil Vapor Sample (5' bgs, June 2016)
- 10 Approximate 2015 Benzene Vapor Isoconcentration Contour (ug/m³)

G = Gasoline
B = Benzene
PCE = Tetrachloroethylene
N = Naphthalene
EDB = Ethylene Dibromide
CT = Carbon Tetrachloride

Results in micrograms per cubic meter (ug/m³)

SITE FEATURES ARE APPROXIMATE

APPROXIMATE SCALE IN FEET
0 15 30
N



TIER 1 VIA SOIL GAS
ANALYTICAL RESULTS
(JUNE 22, 2016)

DATE:	5–11–17	PROJECT NO.	1179–01
FILE:	1179–01	FIGURE NO.	4
DRAWN:	JJT		
APPROVED:	CR		

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LEGEND

- Property Boundary
- Vault
- SVE Piping
- S-3 — Shallow Soil Vapor Sample (5' bgs, 2012–2015)
- S-11 — Deep Soil Vapor Sample (15' bgs, 2012)
- S-32 — Utility Vapor Sample (Various Depths, 2015)
- 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)
- A-1 — Tier 2 Sub-Slab Vapor, Indoor or Outdoor Air Sample (Sept 2016)
- 10 — Approximate 2015 Benzene Vapor Isoconcentration Contour (ug/m³)

G = Gasoline
B = Benzene
PCE = Tetrachloroethylene
N = Naphthalene
EDB = Ethylene Dibromide
CT = Carbon Tetrachloride

Results in micrograms per cubic meter (ug/m³)

SITE FEATURES ARE APPROXIMATE

APPROXIMATE SCALE IN FEET
0 15 30
N

Predominant Wind Direction

A-1	INDOOR	SUB-SLAB
G	530	1,000U
B	0.93	5.0J
PCE	0.25U	23
N	0.12J	3.4U
EDB	0.0076U	1.8U
CT	0.78	2.0U

A-1(Indoor)

A-5	OUTDOOR
G	70U
B	0.27U
PCE	0.23U
N	0.10J
EDB	0.0071U
CT	0.50

A-5(Roof)

A-2	INDOOR	SUB-SLAB
G	970	1,200U
B	1.5	4.7J
PCE	0.22U	21U
N	0.33J	4.3U
EDB	0.022J	2.3U
CT	0.46	2.5U

A-2(Indoor)

A-3	INDOOR	SUB-SLAB
G	980	1,500U
B	1.4	1.7U
PCE	0.23U	25U
N	0.36J	5.2U
EDB	0.0071U	2.8U
CT	0.54	3.0U

A-3(Indoor)

A-4	OUTDOOR
G	72U
B	0.28U
PCE	0.31
N	0.065J
EDB	0.0073U
CT	0.50

A-4(Roof)

A-6	OUTDOOR
G	64
B	0.30
PCE	0.22U
N	0.84
EDB	0.0068U
CT	0.48

A-6(Outdoor)

A-7	OUTDOOR
G	67U
B	1.2
PCE	0.22U
N	0.17J
EDB	0.0068U
CT	0.50

A-7(Outdoor)

A-8	OUTDOOR
G	110
B	0.30
PCE	0.24U
N	0.079J
EDB	0.0074U
CT	0.47

A-8(Outdoor)

A-9	OUTDOOR
G	350
B	3.3
PCE	0.24U
N	0.27J
EDB	0.0073U
CT	0.49

A-9(Outdoor)

Existing Building
(Domino
(Plaid Pantry)
Canopy/Sidewalk
Skid-Mounte Equipment
Air/Water Se
Well Manifold
Sidewalk
Kauffman Ave.
Sign
West Fourth Plain Blvd.
S-1 S-2 S-3 S-4 S-6 S-7 S-9 S-11 S-13 S-14 S-15 S-16 S-17 S-18 S-19 S-20 S-21 S-22 S-23 S-24 S-25 S-26 S-27 S-28 S-29 S-30 S-31 S-32 S-33 S-34 S-36
SVE-1 SVE-2 SVE-3 SVE-4 SVE-5
B-17 B-18

PROJECT NO.	1179-01
DATE:	5-1-17
FILE:	1179-01
FIGURE NO.	5
DRAWN:	JJT
APPROVED:	CR

TIER 2 VIA SUB-SLAB, INDOOR, AND OUTDOOR AIR ANALYTICAL RESULTS
(SEPTEMBER 21-22, 2016)

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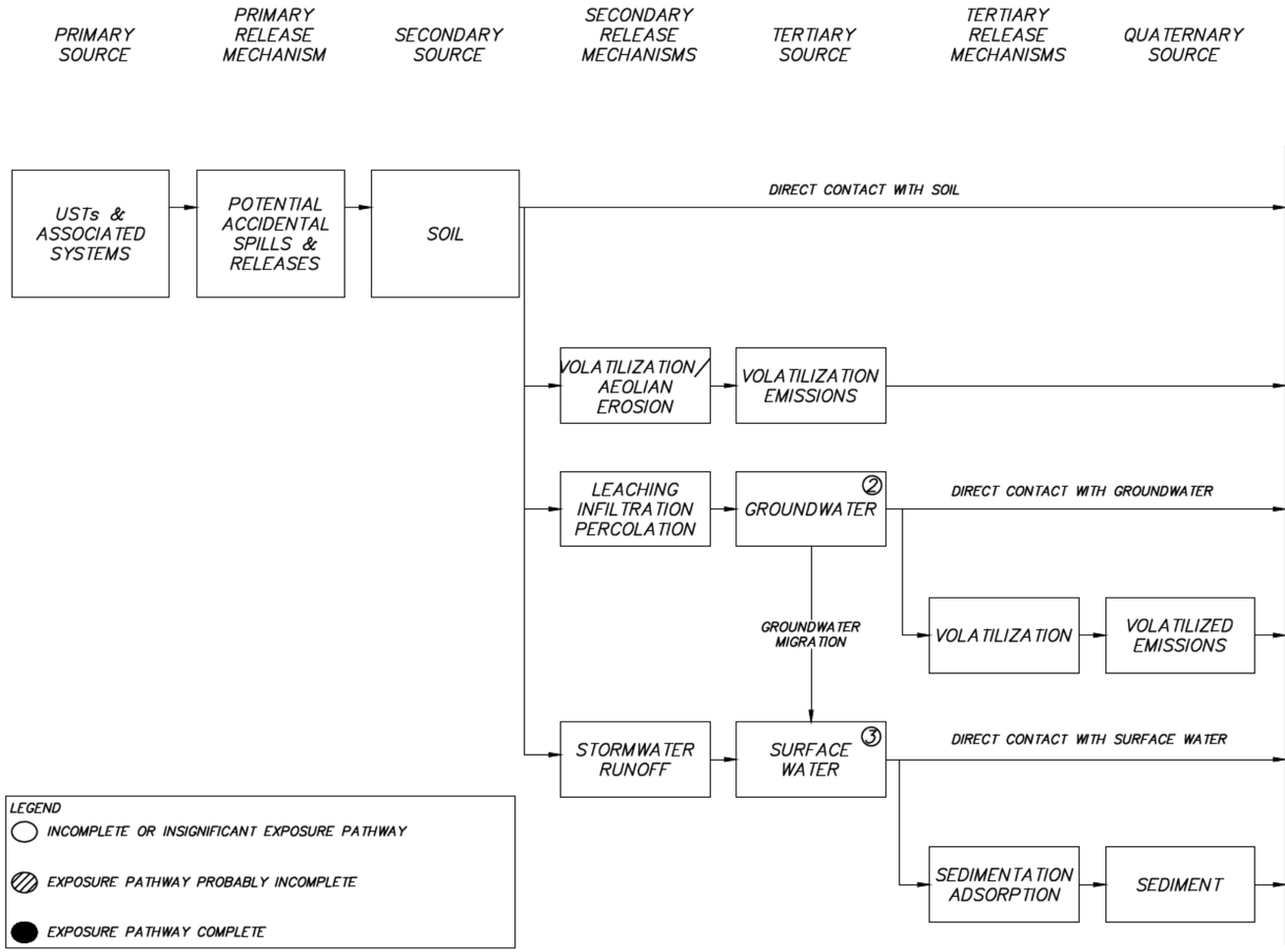
C:\Users\Josh\Desktop\Autocad Files\EES-Autocad\1179-01 Plaid Pantry #112\2017\Feb 2017\1179-01_BM-Data-031317.dwg 11.3 2015

CONCEPTUAL SITE MODEL OF COMPLETE EXPOSURE PATHWAYS



1. VAPOR INTRUSION PATHWAY IS COMPLETE BUT NOT APPLICABLE AT THIS ACTIVE RETAIL GASOLINE FUELING STATION PER ECOLOGY "GUIDANCE FOR EVALUATING SOIL VAPOR INTRUSION IN WASHINGTON STATE INVESTIGATION AND REMEDIAL ACTION" OCTOBER 2009.
2. GROUNDWATER IS NOT AN AFFECTED MEDIA AT THIS SITE.
3. THE SITE IS ENTIRELY PAVED. NO SURFACE WATER CONTACT WITH CONTAMINATED MEDIA IS ANTICIPATED.

DATE: 2-16-17
FILE: 1179-01
DRAWN: JJT
APPROVED: CR
PROJECT NO. 1179-01
FIGURE NO. 6

CONCEPTUAL SITE MODEL

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

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Tables

TABLE 1
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
August-September 2015 Soil Vapor Sampling																	
B-17	09/14/2015	5-10	4,900,000	**120**	120	140	120 U	120 U	-	-	-	-	-	-	-	-	-
B-18	09/14/2015	15-20	17,000	3.9 U	14	5.4 U	7.7	5.4 U	-	-	-	-	-	-	-	-	-
S-14	08/31/2015	5	8,600	**130**	130	25	42	16	-	-	-	-	-	-	-	-	-
S-15	08/31/2015	5	46,000	**500**	880	190	360	180	-	-	-	-	-	-	-	-	-
S-16	08/31/2015	5	5,000	**130**	150	22	35	16	-	-	-	-	-	-	-	-	-
S-17	09/01/2015	4	590 U	4.6 U	8.1	6.3 U	7.3	6.3 U	-	-	-	-	-	-	-	-	-
S-18	09/01/2015	5	580 U	4.5 U	12	6.1 U	12	6.1 U	-	-	-	-	-	-	-	-	-
S-19	09/01/2015	1	540 U	4.2 U	5.9	5.7 U	5.7 U	5.7 U	-	-	-	-	-	-	-	-	-
S-20	09/02/2015	5	540 U	4.5	7.4	5.7 U	7.3	5.7 U	-	-	-	-	-	-	-	-	-
S-21	08/31/2015	5	7,200	**100**	140	35	71	35	-	-	-	-	-	-	-	-	-
S-22	08/31/2015	5	8,600	**140**	220	49	100	44	-	-	-	-	-	-	-	-	-
S-23	08/31/2015	5	2,000	**20**	29	6.5	12	6.2	-	-	-	-	-	-	-	-	-
S-24	08/31/2015	5	520 U	4.7	7.8	5.5 U	5.5 U	5.5 U	-	-	-	-	-	-	-	-	-
S-25	09/02/2015	3.4	600	5.9	31	12	44	13	-	-	-	-	-	-	-	-	-
S-26	09/01/2015	5	560 U	4.4 U	5.2 U	6.0 U	8.4	6.0 U	-	-	-	-	-	-	-	-	-
S-27	09/14/2015	2.3-2.9	540 U	4.2 U	5.0 U	5.8 U	11	7.7	-	-	-	-	-	-	-	-	-
S-28	09/11/2015	1.8-2.2	570 U	4.4 U	5.2 U	6.0 U	6.0 U	6.0 U	-	-	-	-	-	-	-	-	-
S-29	09/11/2015	1.25-1.5	4,600 U[c]	*36 U*[c]	43 U[c]	49 U[c]	49 U[c]	49 U[c]	-	-	-	-	-	-	-	-	-
S-30	09/11/2015	5-10	560 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	-	-	-	-	-	-
S-31	09/11/2015	5-10	740	5.4	16	8.1	33	8.7	-	-	-	-	-	-	-	-	-
S-32	09/02/2015	5	550 U	4.3 U	6.0	5.8 U	5.8 U	5.8 U	-	-	-	-	-	-	-	-	-

TABLE 1
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 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**	-	-	-	-
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*	-	-	-	-	-
	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	-	-	-	-
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	-	-	-	-

TABLE 1
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-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**	-	-	-	-
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**	-	-	-	-
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

TABLE 1

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
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) Soil Vapor Intrusion DRAFT Guidance, Method B Soil Gas Screening Levels (WDOE, October 2009). Updated based on 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

NA = Not Applicable/Not Available

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

- = not analyzed for this parameter

TABLE 2

Tier 1 Vapor Intrusion Assessment 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
June 2016 Tier 1 VIA - Soil Gas																	
S-31	06/22/2016	5-10[3]	79 U	0.31 U	0.33	0.17 U	0.48	0.27	*0.30 U*	0.16 U	0.70 U	0.51 U	5.3	0.21 U	4.0	0.76	0.21 U
S-33	06/22/2016	5	1,300	**14**	17	3.1	6.7	3.2	*0.28 U*	0.15 U	0.66 U	0.48 U	4.6	0.20 U	35	0.23 U	0.20 U
S-34	06/22/2016	5	1,100	5.6	9.1	7.4	34	17	*0.72 U*	0.38 U	1.7 U	1.2 U	11	0.50 U	53	0.59 U	0.51 U
S-35	06/22/2016	5	790 U	4.6	5.8	21	91	34	*3.0 U*	1.6 U	7.0 U	*5.0 U*	**3,500**	2.1 U	31	2.4 U	2.1 U
S-36	06/22/2016	5	2,700	**12**	17	78	330	120	*0.58 U*	0.31 U	1.4 U	1.0 U	27	0.87	50	0.48 U	0.41 U
MTCA Method B Soil Gas Screening Levels[1]																	
Sub-Slab (<15 foot depth)			NA	10.7	76,200	15,200	1,520[2]	1,520	0.139	3.21	321	2.45	321	12.3	NA	13.9	76,200
Deep (>=15 foot depth)			NA	32.1	229,000	45,700	4,570[2]	4,570	0.417	9.62	962	7.35	962	37	NA	41.7	229,000

Notes:

[1] Washington Department of Ecology (WDOE) Soil Vapor Intrusion DRAFT Guidance, Method B Soil Gas Screening Levels (WDOE, October 2009, revised February 2016). Updated based on CLARC database values (August 2015).

[2] Screening levels for m-xylene

[3] Sample collected from vapor monitoring well S-31, which is screened from approximately 5-10 feet below ground surface.

Volatile Organic Compounds analyzed by EPA Method TO-15

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

MTBE = Methyl tert-butyl ether

PCE = Tetrachloroethene

TCE = Trichloroethene

µg/m^3 = Micrograms per cubic meter

ppmv = parts per million volume

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

bgs = below ground surface

NA = Not Applicable/Not Available

TABLE 3
Biodegradation Parameter Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	PID (ppmv)[a]	CH_4 (%)[a]	CO_2 (%)[a]	O_2 (%)[a]
SVE Wells					
SVE-1	11/23/2015	2.8	-	-	-
	07/12/2016	19[b]	0.0[b]	1.0[b]	19.7[b]
	10/21/2016	1.9[b]	0.0[b]	0.1[b]	20.5[b]
SVE-2	11/23/2015	1.9	-	-	-
	07/12/2016	17[b]	0.0[b]	1.7[b]	19.3[b]
	10/21/2016	1.4[b]	0.0[b]	0.3[b]	20.5[b]
SVE-3	11/23/2015	2.8	-	-	-
	07/12/2016	17[b]	0.0[b]	0.3[b]	20.5[b]
	10/21/2016	5.2[b]	0.0[b]	0.5[b]	19.9[b]
SVE-4	11/23/2015	0.9	-	-	-
	07/12/2016	17[b]	0.0[b]	1.3[b]	19.4[b]
	10/21/2016	2.4[b]	0.0[b]	0.3[b]	20.3[b]
SVE-5	11/23/2015	0.8	-	-	-
	07/12/2016	15[b]	0.0[b]	0.1[b]	20.5[b]
	10/21/2016	1.7[b]	0.0[b]	0.2[b]	20.2[b]
Vapor Monitoring Wells					
B-17	11/23/2015	123	-	-	-
	11/24/2015	*307*	-	-	-
	12/11/2015	1,210	-	-	-
	03/16/2016	*287*	-	-	-
	03/16/2016[1]	1,469	1.3	7.1	8.2
	03/16/2016[2]	359	0.6	9.5	5.4
	04/01/2016	315	0.3	4.0	15.4
	07/12/2016	2.6	0.0	4.6	15.3
	10/21/2016	305	0.2	8.8	9.7
B-18	11/23/2015	28	-	-	-
	11/24/2015	*0.6*	-	-	-
	12/11/2015	0.9	-	-	-
	03/16/2016	*1.3*	-	-	-
	03/16/2016[1]	1.4	0.1	0.9	20.1
	03/16/2016[2]	1.5	0.1	1.6	19.3
	04/01/2016	1.3	0.0	1.7	18.8
	07/12/2016	2.7	0.0	2.0	18.4
	10/21/2016	0.9	0.0	2.2	18.4
S-27	11/23/2015	5.5	-	-	-
	11/24/2015	*0.8*	-	-	-
	12/11/2015	0.5	-	-	-
	03/16/2016	*1.3*	-	-	-
	03/16/2016[1]	1.4	0.0	0.5	19.8
	03/16/2016[2]	1.9	0.1	0.9	18.9
	04/01/2016	0.9	0.0	0.2	20.7
	07/12/2016	2.3	0.0	0.1	20.3
	10/21/2016	0.8	0.0	0.2	20.6
S-28	11/23/2015	0.8	-	-	-
	11/24/2015	*1.0*	-	-	-
	07/12/2016	3.3	0.0	1.7	17.8
	10/21/2016	0.9	0.0	1.0	17.6
S-29	11/23/2015	2.6	-	-	-
	11/24/2015	*1.0*	-	-	-
	12/11/2015	0.4	-	-	-

TABLE 3
Biodegradation Parameter Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	PID (ppmv)[a]	CH_4 (%)[a]	CO_2 (%)[a]	O_2 (%)[a]
S-29 (cont'd)	07/12/2016	3.7	1.2	0.0	1.2
	10/21/2016	1.5	0.2	0.0	0.0
S-30	11/23/2015	1.0	-	-	-
	11/24/2015	*0.8*	-	-	-
	12/11/2015	0.5	-	-	-
	04/01/2016	1.0	0.0	1.2	20.2
	07/12/2016	4.0	0.0	1.1	19.2
	10/21/2016	2.8	0.0	0.8	19.6
S-31	11/23/2015	3.6	-	-	-
	11/24/2015	*0.9*	-	-	-
	12/11/2015	0.5	-	-	-
	06/22/2016	*21*	*0.0*	*1.3*	*19.7*
	07/12/2016	5.3	0.0	1.2	19.3
	10/21/2016	2.6	0.0	1.3	19.7
Tier 1 Soil Gas Borings					
S-33	*6/22/2016*	*16*	*0.0*	*1.4*	*19.5*
S-34	*6/22/2016*	*20*	*0.0*	*1.8*	*19.5*
S-35	*6/22/2016*	*15*	*0.0*	*2.8*	*18.7*
S-36	*6/22/2016*	*27*	*0.0*	*1.3*	*19.5*
Tier 2 Sub-Slab Vapor Borings					
A-1ss	*9/22/2016*	*0.7*	*0.0*	*0.3*	*19.9*
A-2ss	*9/22/2016*	*2.6*	*0.0*	*0.6*	*19.8*
A-3ss	*9/22/2016*	*1.6*	*0.0*	*0.3*	*19.5*

Notes:

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

[b] Measured at SVE system manifold.

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

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

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

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

ppmv = parts per million vapor

- = Not measured

TABLE 4

Tier 2 Vapor Intrusion Assessment Analytical Results - Volatile Organic Compounds (µg/m ^{3})

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Location	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
September 2016 Tier 2 VIA - Sub-Slab																		
A-1SS	09/22/2016	Domino's Kitchen	0.5	1,000 U	5.0 J	12	11 U	11 U	11 U	*1.8 U*[6]	2.1 U[6]	35 U	*3.4 U*[6]	23	2.4 U[6]	29 U	2.0 U[6]	13 U
A-2SS	09/22/2016	Plaid Store	0.5	1,200 U	4.7 J	11 U	13 U	13 U	13 U	*2.3 U*[6]	2.6 U[6]	44 U	*4.3 U*[6]	21 U	3.0 U[6]	36 U	2.5 U[6]	20
A-3SS	09/22/2016	Plaid Maintenance Room	0.5	1,500 U	1.7 U[6]	25	16 U	16 U	16 U	*2.8 U*[6]	3.1 U[6]	53 U	*5.2 U*[6]	25 U	3.7 U[6]	43 U	3.0 U[6]	20 U
Median				1,200 U	4.7 J	12	13 U	13 U	13 U	*2.3 U*[6]	2.6 U[6]	44 U	*4.3 U*[6]	23	3.0 U[6]	36 U	2.5 U[6]	20
Mean[8]				1,233 U	3.8 J	16	13 U	13 U	13 U	*2.3 U*[6]	2.6 U[6]	44 U	*4.3 U*[6]	23	3.0 U[6]	36 U	2.5 U[6]	18
MTCA Method B Soil Gas Screening Levels[1]																		
Sub-Slab (<15 foot depth)				NA	10.7	76,200	15,200	1,520[7]	1,520	0.139	3.21	321	2.45	321	12.3	NA	13.9	76,200
September 2016 Tier 2 VIA - Indoor Air																		
A-1	09/21/2016	Domino's Kitchen	-	530	**0.93**	1.1	0.16 U	0.32 U	0.16 U	*0.0076 U*[6]	0.043 J	0.66 U	**0.12** J,J[1]	0.25 U	0.20 U	2.7 U	**0.48**	0.20 U
A-2	09/21/2016	Plaid Store	-	970	**1.5**	8.5	0.64	1.9	0.78	**0.022** J	0.083 J	0.59 U	**0.33** J,J[1]	0.22 U	0.18 U	2.8	**0.46**	0.18 U
A-3	09/21/2016	Plaid Maintenance Room	-	980	**1.4**	7.5	0.58	1.8	0.73	*0.0071 U*[6]	0.074 J	0.62 U	**0.36** J,J[1]	0.23 U	0.18 U	3.2	**0.54**	0.19 U
Median				970	**1.4**	7.5	0.58	1.8	0.73	*0.0076 U*[6]	0.074 J	0.62 U	**0.33** J	0.23 U	0.18 U	2.8	**0.48**	0.19 U
Mean[8]				827	**1.3**	5.7	0.46	1.3	0.56	**0.012** J	0.067 J	0.62 U	**0.27** J	0.23 U	0.19 U	2.9	**0.49**	0.19 U
MTCA Method B Indoor Air Cleanup Levels[2]				NA	0.321	2,290	457	45.7[7]	45.7	0.00417	0.0962	9.62	0.0735	9.62	0.37	2,290	0.417	2,290
US EPA Indoor Air Background Levels[3]																		
Median				NA	2.4	13	2.2	4	2.2	NA	NA	0.8	NA	0.7	0.1	NA	0.5	1.8
Max				NA	36	139	35	279	44	NA	NA	248	NA	42	19	NA	3	102
September 2016 Tier 2 VIA - Outdoor Air																		
A-4	09/21/2016	Domino's Roof	-	72 U	0.28 U	**13**	1.9	**8.6**	**3.2**	0.0073 U[6]	0.058 J	0.63 U	**0.065** J,J[1]	**0.31**	**0.29**	*2.6 U*	0.50	0.19 U
A-5	09/21/2016	Plaid Roof	-	70 U	0.27 U	0.60 J[1]	0.15 U	*0.30 U*	0.15 U	0.0071 U[6]	0.049 J	0.62 U	**0.10** J,J[1]	0.23 U	*0.18 U*	*2.5 U*	0.50	0.19 U
A-6	09/21/2016	Domino's Entry	-	64	0.30 J[1]	**9.2**	0.52	**2.0**	**0.80**	0.0068 U[6]	**0.094** J	0.59 U	**0.84** J[1]	0.22 U	*0.18 U*	**5.3**	0.48	0.18 U
A-7	09/21/2016	Plaid Entry	-	67 U	**1.2**	**3.6**	0.38	**1.2**	**0.42**	0.0068 U[6]	0.046 J	0.59 U	**0.17** J,J[1]	0.22 U	*0.18 U*	*2.4 U*	0.50	0.18 U
A-8	09/21/2016	Western Property Boundary	-	110	0.30	**18**	1.0	**4.5**	**1.3**	0.0074 U[6]	0.070 J	0.64 U	**0.079** J,J[1]	*0.24 U*	*0.19 U*	*2.6 U*	0.47	0.20 U
A-9	09/21/2016	Roadway Intersection	-	350	**3.3**	**13**	1.2	**4.1**	**1.3**	0.0073 U[6]	0.054 J	0.63 U	**0.27** J,J[1]	*0.24 U*	*0.19 U*	*2.6 U*	0.49	0.19 U
Median				71	0.30	**11**	0.76	**3.1**	**1.1**	0.0072 U[6]	0.056 J	0.63 U	**0.14** J	0.235	**0.19**	**2.6**	0.50	0.19 U
Mean[8]				122	0.94	**10**	0.86	**3.5**	**1.2**	0.0071 U[6]	0.062 J	0.62 U	**0.25** J	**0.243**	**0.20**	**3.0**	0.49	0.19 U
US EPA Outdoor Background Levels[4]																		
Median				NA	0.385	NA	NA	0.17	0.17	0.192	0.081	NA	NA	0.237	0.161	NA	2.7	NA
Max				NA	4.8	NA	NA	0.17	0.17	3.85	2.0	NA	NA	3.4	2.7	NA	2.7	NA
Vancouver Air Toxics Monitoring Results[5]																		
Annual Average Concentration				NA	0.98[a]	3.45	NA	NA	NA	NA	NA	NA	0.0019[a]	NA	NA	0.46	NA	NA

TABLE 4

Tier 2 Vapor Intrusion Assessment Analytical Results - Volatile Organic Compounds (µg/m ^{3})

Plaid Pantry No. 112

Vancouver, Washington

Notes:

[1] Washington Department of Ecology (WDOE), Model Toxics Control Act (MTCA) Soil Gas Screening Levels from CLARC Database (August 2015)

[2] WDOE, MTCA Indoor Air Cleanup Levels from CLARC Database (August 2015)

[3] United States Environmental Protection Agency (US EPA) Vapor Intrusion Database Table: Preliminary Evaluation of Attenuation Factors. Table 4a (March 4, 2008)

[4] US EPA National Scale Air Toxics Assessment Table 1-A list of background concentration values used in the 1999 National-Scale Assessment by pollutant (revised 2006 and 2009)

[5] Southwest Clean Air Agency, Vancouver 2005 Ambient Air Toxics Monitoring Review Table 4-1 (January 26, 2007)

[6] Analyte was reported down to the method detection limit.

[7] Screening level for m-xylene shown

[8] Mean values calculated using 100% of method reporting limit for non-detect values.

Volatile Organic Compounds analyzed by EPA Method TO-15

[a] Not enough valid sampling days for a statistically meaningful average.

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

MTBE = Methyl tert-butyl ether

PCE = Tetrachloroethene

TCE = Trichloroethene

µg/m^3 = Micrograms per cubic meter

bgs = below ground surface

U = Undetected at method reporting limit shown

J = Laboratory Qualifier. The reported value was detected below the reporting limit, but above the detection limit of the instrument. Value should be considered an estimate.

J^1 = Data Validation Qualifier. The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. See data validation report for further explanation.

NA = Not Applicable/Not Available

Bold values indicate concentrations exceed the MTCA Method B cleanup level (shallow soil gas or indoor air), or both the EPA median background concentration and Vancouver Toxic Monitoring Results (outdoor air).

Italics indicate analytical reporting limits exceed MTCA Method B cleanup level.

TABLE 5
Barometric Pressure (inches)
Plaid Pantry No. 112
Vancouver, Washington

Date	Time	Outdoor[1]	Indoor[2]			Indoor to Outdoor Relative Pressure Gradient
			Plaid Store	Plaid Maintenance Room	Domino's	
9/21/2016	9:30	29.95	29.96	29.95	29.95	Neutral
	11:30	29.92	29.92	29.92	29.91	Neutral
	13:30	29.87	29.88	29.88	29.87	Neutral
	15:30	29.83	29.82	29.82	29.82	Neutral
	17:30	29.81	29.82	-	-	Neutral
9/22/2016	9:15	29.98	29.98	-	-	Neutral
	10:15	29.99	-	-	30.00	Neutral
	11:15	30.00	-	-	-	-
	12:15	30.00	-	30.00	-	Neutral
	13:15	30.01	-	-	-	-

Notes:

[1] Measured on Property building rooftop using a portable weather station.

[2] Measured inside Property building tenant spaces using a handheld barometer.

TABLE 6
Corrected Indoor Air Results (µg/m^3)
Plaid Pantry No. 112
Vancouver, Washington

	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
September 2016 Tier 2 VIA - Corrected Indoor Air Concentrations															
Mean Indoor Air Concentration (uncorrected)	827	**1.3**	5.7	0.46	1.3	0.56	**0.012** J	0.067 J	0.62 U	**0.27** J	0.24 U	*0.19 U*	2.9	**0.49**	0.19 U
Correction Factor[1]	122	0.94	10	0.86	3.5	1.2	0.0071 U[5]	0.062 J	0.62 U	0.25 J	0.24	0.20	3.0	0.49	0.19 U
Corrected Indoor Air Concentration[2]	705	**0.36**	-3.9	-0.40	-2.2	-0.64	**0.0049**	0.0052	0.0067	0.016	-0.0033	-0.012	-0.10	0.00	0.0017
MTCA Method B Indoor Air Cleanup Levels[3]	NA	0.321	2,290	457	45.7[6]	45.7	0.00417	0.0962	9.62	0.0735	9.62	0.37	2,290	0.417	2,290
US EPA Indoor Air Screening Levels[4]															
Median	NA	2.4	13	2.2	4	2.2	NA	NA	0.8	NA	0.7	0.1	NA	0.5	1.8
Max	NA	36	139	35	279	44	NA	NA	248	NA	42	19	NA	3	102

Notes:

[1] Based on the mean of all outdoor samples collected on 9/21/2016

[2] Corrected indoor air concentration based on subtracting outdoor air concentration (Correction Factor) from average (mean) indoor air concentration, per Ecology draft Vapor Intrusion Guidance, October 2009. Negative value indicates outdoor air concentration > indoor air concentration.

[3] Washington Department of Ecology (WDOE), Model Toxics Control Act (MTCA) Indoor Air Screening Levels from CLARC Database (August 2015)

[4] United States Environmental Protection Agency (US EPA) Vapor Intrusion Database Table: Preliminary Evaluation of Attenuation Factors. Table 4a (March 4, 2008)

[5] Analyte was reported down to the method detection limit.

[6] Screening level for m-xylene shown

Volatile Organic Compounds analyzed by EPA Method TO-15

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

MTBE = Methyl tert-butyl ether

PCE = Tetrachloroethene

TCE = Trichloroethene

µg/m^3 = Micrograms per cubic meter

U = Undetected at method reporting limit shown

J = Laboratory Qualifier. The reported value was detected below the reporting limit, but above the detection limit of the instrument. Value should be considered an estimate.

NA = Not Applicable/Not Available

Bold values indicate concentrations exceed Ecology cleanup level.

Italics indicate analytical reporting limits exceed MTCA Method B cleanup level.

Attachment A

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No. 1179-01 | Location: VANCOUVER, WA
Site Name: PLAID PANTRY #112 | Install Date: 9-11-15 | Sample Date: 6-22-16

Vapor Probe Construction

Probe or Sample I.D.:	S-31
Screen Material:	PVC
Tube or Piping Material:	TEFLON / PVC
Tube or Piping Diameter (Nom.):	¼ Inches
Slab Thickness:	121.68 Inches (4 in)
Probe Intake Depth:	~ Inches bgs
Sub-Grade Aggregate Material:	ML/SM

Indoor Air Information

Temperature:	— °F
Barometric Pressure:	— ( )
GEM Readings:	— % O_2
	— % CO_2
PID Reading:	— ppm VOCs

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe

Purge Rate: 200 mL/min

Flow Controller Used? (yes) / no Rate: 200mL/min

Outdoor Air Information

Temperature: 73 °F

Barometric Pressure: 30.10 (IN)

Purge Volume Calculation:

Sand Pack Dead Volume =	—	mL	
3/8" Probe Length =	—	in (1.0 mL/in) =	mL
1/4" Tubing Length =	36	in (0.37 mL/in)=	13.32 mL
Total Dead Volume:	6278.71	mL*	
Volumes Purged:	2	mL	
Total Volume Purged:	12557.42	mL	
Purge Time:	62.79 min		

Leak Testing:

Tracer Material:	NONE
Gas or Liquid?	—
Shroud Used?	NO
Concentration in Shroud:	—
Summa Train Tight?	YES

Subslab Vapor Measurements (During/After Purging)

Temperature:	— °F
Pressure:	— ( )
GEM Readings:	19.7 % O_2
	1.3 % CO_2
PID Reading (Stable):	21.1 ppm VOCs**
Tracer Detected? yes / no	N/A
Concentration:	—

Sample Information

Sample I.D.:	S-31
Canister I.D.:	00318
Begin Vacuum:	29.5 in. Hg
End Vacuum:	8 in. Hg
Begin Sample Time:	1428
End Sample Time:	1500
Vacuum Gauge I.D.	080 912
Flow Regulator I.D.:	00441
Particulate Filter I.D.:	316 OXW

CH_4 = 0.0%

Notes:

*TOTAL DEPTH = 10.14 ft = 121.68 in
DIAMETER = 2 in
$V = \pi * (1\text{ in})^2 * 121.68\text{ in} = 382.27\text{ in}^3 (16.39\text{ mL/in}^3)$
$V = 6265.39$ mL

**SEE NOTES ON S-33 SAMPLING SHEET

Volume Calcs: (1 in^3 = 16.39 mL)
1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing
3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping

Handheld Meters:
RAE 2000 PID: Flow rate = 550 mL/min
Gas-Check Helium Meter: Flow rate = 2 mL/min

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No. 1179-01 | Location: VANCOUVER, WA
Site Name: PLAID PANTRY #112 | Install Date: 6-22-16 | Sample Date: 6-22-16

Vapor Probe Construction

Probe or Sample I.D.:	S-33	
Screen Material:	TEFLON	
Tube or Piping Material:	TEFLON	
Tube or Piping Diameter (Nom.):	1/4	Inches
Slab Thickness:	4ot	Inches
Probe Intake Depth:	60	Inches bgs
Sub-Grade Aggregate Material:	ML	

Indoor Air Information

Temperature:	--	°F
Barometric Pressure:	--	( )
GEM Readings:	--	% O_2
	--	% CO_2
PID Reading:	--	ppm VOCs

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe

Purge Rate: 200 mL/min

Flow Controller Used? (yes) / no Rate: 200 mL/min

Outdoor Air Information

Temperature: 61 °F

Barometric Pressure: 30.10 (in)

Purge Volume Calculation:

Sand Pack Dead Volume =	--	mL	
3/8" Probe Length =		in (1.0 mL/in) =	mL
1/4" Tubing Length =	120	in (0.37 mL/in)=	44.4 mL
Total Dead Volume:	44.4		mL
Volumes Purged:	3		~~mL~~
Total Volume Purged:	133.2		mL
Purge Time:	88.8 (min/200 mL)(60s/min) = 26.64		

Leak Testing:

Tracer Material: He

Gas or Liquid?

Shroud Used? YES

Concentration in Shroud: 6%

Summa Train Tight? YES

Subslab Vapor Measurements (During/After Purging)

Temperature:	--	°F
Pressure:	--	( )
GEM Readings:	19.5	% O_2
	1.4	% CO_2
PID Reading (Stable):	15.6	ppm VOCs **
Tracer Detected?	yes / (no)	
Concentration:	0 PPM	

Sample Information

Sample I.D.:	S-33	
Canister I.D.:	00308	
Begin Vacuum:	30	in. Hg
End Vacuum:	8.5	in. Hg
Begin Sample Time:	913	
End Sample Time:	1015	
Vacuum Gauge I.D.	316 XZV	
Flow Regulator I.D.:	20308	
Particulate Filter I.D.:	316 VQW	

Notes:

** AMBIENT AIR THROUGH TUBING IN TEDLAR PID = 6.8 ppm

CH_4 = 0.0%

TUBING (SILICON IN P-PUMP) VERY HOT TO TOUCH. MAY BE GIVING OFF VOCs RESULTING IN ELEVATED PID READINGS (NOTE THIS TUBING IS AFTER THE SUMMA SAMPLE)

Volume Calcs: (1 in^3 = 16.39 mL)
1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing
3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping

Handheld Meters:
RAE 2000 PID: Flow rate = 550 mL/min
Gas-Check Helium Meter: Flow rate = 2 mL/min

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No. 1179-01 | Location: VANCOUVER, WA
Site Name: PLAID PANTRY #117 | Install Date: 6-22-16 | Sample Date: 6-22-16

Vapor Probe Construction

Probe or Sample I.D.:	S-34
Screen Material:	TEFLON
Tube or Piping Material:	TEFLON
Tube or Piping Diameter (Nom.):	1/4 Inches
Slab Thickness:	4 Inches
Probe Intake Depth:	60 Inches bgs
Sub-Grade Aggregate Material:	ML

Indoor Air Information

Temperature:	— °F
Barometric Pressure:	— ( )
GEM Readings:	— % O_2
	— % CO_2
PID Reading:	— ppm VOCs

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe

Purge Rate: 200 mL/min

Flow Controller Used? (yes) / no Rate: 200 mL/min

Outdoor Air Information

Temperature:	66 °F
Barometric Pressure:	30.10 (IN)

Purge Volume Calculation:

Sand Pack Dead Volume =	—	mL	
3/8" Probe Length =	—	in (1.0 mL/in) =	— mL
1/4" Tubing Length =	120	in (0.37 mL/in)=	44.4 mL
Total Dead Volume:	44.4		mL
Volumes Purged:	2		mL
Total Volume Purged:	98.8		mL
Purge Time:	27 SEC		

Leak Testing:

Tracer Material:	He
Gas or Liquid?	
Shroud Used?	YES
Concentration in Shroud:	8%
Summa Train Tight?	YES

Subslab Vapor Measurements (During/After Purging)

Temperature:	— °F
Pressure:	— ( )
GEM Readings:	19.5 % O_2
	1.8 % CO_2
PID Reading (Stable):	204 ppm VOCs**
Tracer Detected? yes / (no)	
Concentration:	0 ppm

Sample Information

Sample I.D.:	S-34
Canister I.D.:	34450
Begin Vacuum:	29 in. Hg
End Vacuum:	8 in. Hg
Begin Sample Time:	1106
End Sample Time:	1147
Vacuum Gauge I.D.	316 VOB
Flow Regulator I.D.:	100201
Particulate Filter I.D.:	316 XXU

Notes:

CH_4 = 0.0%

**SEE NOTES ON S-33 SAMPLING SHEET

Volume Calcs: (1 in^3 = 16.39 mL)
1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing
3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping

Handheld Meters:
RAE 2000 PID: Flow rate = 550 mL/min
Gas-Check Helium Meter: Flow rate = 2 mL/min

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No. 1179-01 | Location: VANCOUVER, WA

Site Name: PLAID PANTRY #112 | Install Date: 6-22-16 | Sample Date: 6-22-16

Vapor Probe Construction

Probe or Sample I.D.:	S-35
Screen Material:	TEFLON
Tube or Piping Material:	TEFLON
Tube or Piping Diameter (Nom.):	1/4 Inches
Slab Thickness:	4 Inches
Probe Intake Depth:	60 Inches bgs
Sub-Grade Aggregate Material:	mix

Indoor Air Information

Temperature:	~ °F
Barometric Pressure:	~ ( )
GEM Readings:	~ % O_2
	~ % CO_2
PID Reading:	~ ppm VOCs

Purge Volume Calculation:

Sand Pack Dead Volume =	~ mL
3/8" Probe Length =	~ in (1.0 mL/in) = mL
1/4" Tubing Length =	120 in (0.37 mL/in) = 44.4 mL
Total Dead Volume:	44.4 mL
Volumes Purged:	2 mL

TIME = 27 SEC

Outdoor Air Information

Temperature:	68 °F
Barometric Pressure:	30.10 (in)

Leak Testing:

Tracer Material:	He
Gas or Liquid?	
Shroud Used?	YES
Concentration in Shroud:	10%
Summa Train Tight?	YES

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe

Purge Rate: 200 mL/min

Flow Controller Used? (yes) / no Rate: 200 mL/min

Subslab Vapor Measurements (During/After Purging)

Temperature:	~ °F
Pressure:	~ ( )
GEM Readings:	18.7 % O_2
	2.9 % CO_2
PID Reading (Stable):	5.3 ppm VOCs **
Tracer Detected?	yes / (no)
Concentration:	0 ppm

Sample Information

Sample I.D.:	S-35 (DUP)
Canister I.D.:	~~5298~~ 00323
Begin Vacuum:	30 in. Hg
End Vacuum:	9 in. Hg
Begin Sample Time:	1225
End Sample Time:	1256
Vacuum Gauge I.D.	316 YTA
Flow Regulator I.D.:	30810
Particulate Filter I.D.:	316 YMA

Notes:

** SEE NOTES ON S-33 SAMPLING SHEET

VHAP 0.01

Volume Calcs: (1 in^3 = 16.39 mL)

1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing

3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping

Handheld Meters:

RAE 2000 PID: Flow rate = 550 mL/min

Gas-Check Helium Meter: Flow rate = 2 mL/min

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No. 1179-01 | Location: VANCOUVER, WA

Site Name: PLAID PANTRY #112 | Install Date: 6-22-16 | Sample Date: 6-22-16

Vapor Probe Construction

Probe or Sample I.D.: S-30

Screen Material: TEFLON

Tube or Piping Material: TEFLON

Tube or Piping Diameter (Nom.): 1/4 Inches

Slab Thickness: 4 Inches

Probe Intake Depth: 60 Inches bgs

Sub-Grade Aggregate Material: ML

Indoor Air Information

Temperature: — °F

Barometric Pressure: — ( )

GEM Readings: — % O_2

— % CO_2

PID Reading: — ppm VOCs

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe

Purge Rate: 200 mL/min

Flow Controller Used? (yes) / no Rate: 200mL/min

Outdoor Air Information

Temperature: 61 °F

Barometric Pressure: 30.10 (IN)

Purge Volume Calculation:

Sand Pack Dead Volume = — mL

3/8" Probe Length = — in (1.0 mL/in) = 44.4 mL

1/4" Tubing Length = 120 in (0.37 mL/in)= mL

Total Dead Volume: — mL

Volumes Purged: 2 mL

Total Volume Purged: 88.8 mL

Purge Time: 27 sec

Leak Testing:

Tracer Material: He

Gas or Liquid?

Shroud Used? YES

Concentration in Shroud: 12%

Summa Train Tight? YES

Subslab Vapor Measurements (During/After Purging)

Temperature: — °F

Pressure: — ( )

GEM Readings: 19.5 % O_2

1.3 % CO_2

PID Reading (Stable): 27.0 ppm VOCs **

Tracer Detected? yes / (no)

Concentration: 0 ppm

Sample Information

Sample I.D.: S-30

Canister I.D.: 04202

Begin Vacuum: 28.5 in. Hg

End Vacuum: 7 in. Hg

Begin Sample Time: 1041

End Sample Time: 1123

Vacuum Gauge I.D. 316 VTA

Flow Regulator I.D.: 10042

Particulate Filter I.D.: 316 XXU

Notes:

** SEE NOTES ON S-33 SAMPLING SHEET

CH_4 = 0.0%

Volume Calcs: (1 in^3 = 16.39 mL)

1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing

3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping

Handheld Meters:

RAE 2000 PID: Flow rate = 550 mL/min

Gas-Check Helium Meter: Flow rate = 2 mL/min

SAMPLE COLLECTION FORM

Location ID BOLLARD Project Name PLAID PANTRY #112

Sample No. A-8 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 00309 Flow Controller ID No. 21291

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 30 in Hg

Ambient PID Reading 0.0 ppmv

PID @ 1500: 0.2 ppmv
@ 1000: 0.2 ppmv

Initial Weather Conditions

Temperature 56 °F Wind Speed 4 mph

Wind Direction NW Humidity 77%

Atmospheric Pressure 29.946

PID: ~~00~~ (DBP) 0.1 ppmv

Sample Collection

Indoor / Outdoor Air Sample (circle one) Sample Collection Height 4.25 ft

Start time 0942

End Time 1810 Final Vacuum Reading 10 in Hg

Samplers Signature Danielle Bianne Peters Date 9-21-2016

Final Weather Conditions:

Temperature 71.3 °F Wind Speed 4.0 mph

Wind Direction NE Humidity 45%

Atmospheric Pressure 29.194

PID = 0.2 ppmv

SAMPLE COLLECTION FORM

Location ID PLAID (STORE) Project Name PLAID PANTRY #112

Sample No. A-2 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 339605 Flow Controller ID No. 21035

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 30 in Hg

Ambient PID Reading 0.0 ppmv

Initial Weather Conditions

PID @1500: 0.6 ppmv
@1600: 0.6 ppmv

Temperature 56 °F Wind Speed 4 mph

Wind Direction NW Humidity 77%

Atmospheric Pressure 29.946 (OUT) 29.96 (IN)

PID: 0.6 ppmv

Sample Collection

Indoor / Outdoor Air Sample (circle one) Sample Collection Height ~~4.25~~ 5.75 ft (DBP)

Start time 0944

End Time 1744 Final Vacuum Reading 10 in Hg

Samplers Signature Daniela Biano Rivera Date 9-21-2016

Final Weather Conditions:

Temperature 72.2 °F Wind Speed 4.0 mph

Wind Direction (DBP) ~~NNW~~ NNW Humidity 43%

Atmospheric Pressure 29.910 (OUT) 29.92 (IN)

PID = 0.6 ppmv

SAMPLE COLLECTION FORM

Location ID PLAID(MAINTENANCE) Project Name PLAID PANTRY #112

Sample No. A-3 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 21330 (DBP) Flow Controller ID No. 108629

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 28 in Hg

Ambient PID Reading 0.0 ppmv

Initial Weather Conditions

PID @ 1500: 0.6 ppmv
@ 1600: 0.5 ppmv

Temperature ~~50~~ 55 °F (DBP) Wind Speed ~~4~~ 3.0 mph (DBP)

Wind Direction NW Humidity 79 %

Atmospheric Pressure 29.9~~4~~7 (OUT) 2996 (IN)

PID: 0.6 ppmv

Sample Collection

(Indoor) / Outdoor Air Sample (circle one) Sample Collection Height 6 ft

Start time 0950

End Time 1709 Final Vacuum Reading 6 in Hg

Samplers Signature Danielle Brian Vetter Date 9-21-2016

Final Weather Conditions:

Temperature 73.1 °F Wind Speed 4.0 mph

Wind Direction NW Humidity 37%

Atmospheric Pressure 29.816 (OUT) 29.82 (IN)

PID 0.7 ppmv

SAMPLE COLLECTION FORM

Location ID PLAID(DOOR) Project Name PLAID PANTRY #112

Sample No. A-7 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 31137 Flow Controller ID No. 20693

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 30 in Hg

Ambient PID Reading 0.0 ppmv

PID @1500: 0.2 ppmv
@1600:

Initial Weather Conditions

Temperature ~~54~~ (DBP) 54.3 °F Wind Speed 4 (DBP) 2.0 mph

Wind Direction NW Humidity ~~77%~~ (DBP) 81%

Atmospheric Pressure 29.950

PID: 0.1 ppmv

Sample Collection

Indoor / (Outdoor) Air Sample (circle one) Sample Collection Height 4.5 ft

Start time 0940

End Time 1702 Final Vacuum Reading 6 in Hg

Samplers Signature Daniel Brian Potter Date 9-21-2016

Final Weather Conditions:

Temperature 72.9 °F Wind Speed 5.0 mph

Wind Direction NW Humidity 38 %

Atmospheric Pressure 29.815

PID = 0.3 ppmv

SAMPLE COLLECTION FORM

Location ID DOMINOS(IN) Project Name PLAID PANTRY #112

Sample No. A-1 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 34354 Flow Controller ID No. 21030

Canister Size 6 L Desired Flow Rate 11.5 ml/min

Initial Vacuum 27 in Hg

Ambient PID Reading 0.0 ppmv

Initial Weather Conditions

PID @ 1500: 0.5 ppmv
@ 1600: 0.3 ppmv

Temperature ~~56~~ (DBP) 55.4 °F Wind Speed ~~4~~ (DBP) 2.0 mph

Wind Direction NW Humidity 79 %

Atmospheric Pressure 29.946 (OUTDOOR) 29.95 (INDOOR)

PID: 0.5 ppm

Sample Collection

(Indoor) / Outdoor Air Sample (circle one) Sample Collection Height 5 ft

Start time 0955

End Time 1636 Final Vacuum Reading 6 in Hg

Samplers Signature Daniel Bianco Peters Date 9-21-2016

Final Weather Conditions:

Temperature 73.7 °F Wind Speed 4.0 mph

Wind Direction W Humidity 43%

Atmospheric Pressure 29.915 (OUT) 29.82 (IN)

PID: 0.6 ppmv

SAMPLE COLLECTION FORM

Location ID DOWNWIND Project Name PLAID PANTRY #112

Sample No. A-9 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 31138 Flow Controller ID No. 20702

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 29 in Hg

Ambient PID Reading 0.0 ppmv

Initial Weather Conditions

PID @1500: 0.2 ppmv
@1600: 0.2 ppmv

Temperature ~~56~~ 54.7 °F (DBP) Wind Speed 4 (DBP) 3.0 mph

Wind Direction NW Humidity ~~77%~~ (DBP) 90%

Atmospheric Pressure 29.949 PID: 0.2 ppmv

Sample Collection

Indoor / Outdoor Air Sample (circle one) Sample Collection Height 5.25 ft

Start time 0943

End Time 1622 Final Vacuum Reading ~~0~~ 6 (DBP) in Hg

Samplers Signature Daniele Brune Peters Date 9-21-2016

Final Weather Conditions:

Temperature 73.7 °F Wind Speed 4.0 mph

Wind Direction W Humidity 41

Atmospheric Pressure 29.921 PID: 0.3 ppmv

SAMPLE COLLECTION FORM

Location ID DOMINOS (DOOR) Project Name PLAID PANTRY #112

Sample No. A-6 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 0L1290 Flow Controller ID No. 21295

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 26 in Hg

Ambient PID Reading 0.0 ppmv

Initial Weather Conditions

PID @ 1500: 0.2 ppmv
@ 1600: 0.2 ppmv

Temperature ~~50~~ (DBP) 54.3 °F Wind Speed 4 (DBP) 2.0 mph

Wind Direction NW Humidity ~~77%~~ (DBP) 91%

Atmospheric Pressure 29.950

PID: 0.1 ppmv

Sample Collection

Indoor / Outdoor Air Sample (circle one) Sample Collection Height 4.75 ft

Start time 0941

End Time 1402 Final Vacuum Reading 6 in Hg

Samplers Signature Danielle Bianca Peters Date 9-21-2016

Final Weather Conditions:

Temperature ~~73.3~~ °F Wind Speed 4.0 mph

Wind Direction NW Humidity 42%

Atmospheric Pressure 29.825

PID = 0.2 ppmv

SAMPLE COLLECTION FORM

Location ID UPWIND ROOF Project Name PLAID PANTRY #112

Sample No. A-5 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 00426 Flow Controller ID No. 21165

Canister Size 6-L Desired Flow Rate 11.5 mL/min

Initial Vacuum 29 in Hg

Ambient PID Reading 0.0 ppmv

PID @ 1500: 0.3 ppmv

Initial Weather Conditions

Temperature ~~50~~ (DBP) 53.8 °F Wind Speed 4 mph

Wind Direction NW Humidity ~~77%~~ (DBP) 93%

Atmospheric Pressure 29.94~~7~~

PID = 0.0 ppmv

Sample Collection

Indoor / (Outdoor) Air Sample (circle one) Sample Collection Height 3 ft OFF ROOF

Start time 0937

End Time 1522 Final Vacuum Reading 6 in Hg

Samplers Signature Danielle Biamp Peters Date 9-21-2016

Final Weather Conditions:

Temperature 72.7 °F Wind Speed 4.0 mph

Wind Direction NW Humidity 44%

Atmospheric Pressure 29.830

PID = 0.2 ppmv

SAMPLE COLLECTION FORM

Location ID DOMINOS HVAC Project Name PLAID PANTRY #112

Sample No. A-4 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 34391 Flow Controller ID No. 20029

Canister Size 6 L Desired Flow Rate 11.5 mL/min

Initial Vacuum 29 in Hg

Ambient PID Reading 0.0 ppmv

PID@1500: 0.2 ppmv

Initial Weather Conditions

Temperature ~~58~~ (DBP) 53.8 °F Wind Speed 4 mph

Wind Direction NW Humidity ~~77.0~~ (DBP) 93%

Atmospheric Pressure 29.94~~7~~

PID: 0.1 ppmv

HVAC OFF AT SAMPLE START TIME; HVAC ON BY 1200.

Sample Collection

Indoor / (Outdoor) Air Sample (circle one) Sample Collection Height 5 ft

Start time 0934

End Time 1538 Final Vacuum Reading 6 in Hg

Samplers Signature ~~Daniel Bianco Peters~~ Date 9-21-2016

Final Weather Conditions:

Temperature 72.5 °F Wind Speed 4.0 mph

Wind Direction NW Humidity 42

Atmospheric Pressure 29.828

PID = 0.2 ppmv

SAMPLE COLLECTION FORM

Location ID PLAID MAINTENANCE OFFICE Project Name PLAID PANTRY #112

Sample No. A-10 Project No. 1179-01

Date 9-21-2016 Collector DBP & CJR

Equipment Information

Canister ID No. 14007 Flow Controller ID No. 2110

Canister Size 6-L Desired Flow Rate 11.5 mL/min

Initial Vacuum 28 in Hg

Ambient PID Reading ~~0~~ 0 ppmv

Initial Weather Conditions

PID @1500: 0.6 ppmv @1600: 0.5 ppmv

Temperature ~~56~~ (DBP) 55.7 °F Wind Speed (DBP) ~~4~~ 2.0 mph

Wind Direction NW Humidity 77%

Atmospheric Pressure 29.948 (OUT) 29.95 (IN)

PID: 0.7 ppmv

Sample Collection

(Indoor) / Outdoor Air Sample (circle one) Sample Collection Height 5 ft

Start time 1007

End Time 1546 Final Vacuum Reading 6 in Hg

Samplers Signature Daniele Briane Peters Date 9-21-2016

Final Weather Conditions:

Temperature 73.3 °F Wind Speed 4.0 mph

Wind Direction NNW Humidity 43%

Atmospheric Pressure 29.927 (OUT) 29.82 (IN)

PID: 0.5 ppmv

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No.: 1179-01
Site Name: PLAID PANTRY #112

Location: A-3SS (PLAID MAINTENENCE)
Install Date: 9-22-2016 Sample Date: 9-22-2016

Vapor Probe Construction

Probe or Sample I.D.: A-3SS
Screen Material: STAINLESS STEEL
Tube or Piping Material: TEFLON
Tube or Piping Diameter (Nom.): 1/4 inches
Slab Thickness: 4" inches
Probe Intake Depth: 2" (INCHES)
Sub-Grade Aggregate Material: SILTY SAND

Indoor Air Information

Temperature: 72.6 °F
Barometric Pressure: 30.00 ( )
PID Reading: 0.6 ppm VOCs

Outdoor Air Information

Temperature: 72.7 °F
Barometric Pressure: 29.948 ( )

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe
Purge Rate: 200 mL/min
Flow Controller Used? Yes / No Rate: 200 mL/min

TO-17 Sample Volume Calculation:

Required Volume: ___ mL
Maximum Sample Rate: ___ mL/min
Syringe Volume: ___ mL
Number of Pulls: ___
Time for Each Pull: ___ seconds

Purge Volume Calculation:

3/4" Annular Space = — in * (7.24 mL/in) = — mL
1" Annular Space = — in * (12.87 mL/in) = — mL
3/8" Probe Length = — in * (1.0 mL/in) = — mL
1/4" Tubing Length = 120 in * (0.37 mL/in) = 44.4 mL
Total Dead Volume: 44.4 mL
Volumes Purged: 2
Total Volume Purged: 88.8 mL
Purge Time: 16.6 SEC

Leak Testing:

Tracer Material: He
Gas or Liquid? Gas / Liquid
Shroud Used? Yes / No
Concentration in Shroud (Pre): 50%
Concentration in Shroud (Post): 5.2%
Summa Train Tight? Yes / No

Subslab Vapor Measurements (During/After Purging)

Temperature: — °F
Pressure: — ( )
Background PID Reading: 0.1 ppm VOCs (OUTDOOR)
Purge PID Reading: 1.6 ppm VOCs
Post-Sample PID Reading: 1.6 ppm VOCs
Purge He Reading: 0 ppm He / % He
Post-Sample He Reading: 0 ppm He / % He
GEM Readings: 19.5 $\%O_2$
0.3 $\%CO_2$
0.0 $\%CH_4$

Sample Information

Sample I.D.: A-3SS
Canister I.D.: 35252
Sorbent Tube I.D.: —
Begin Vacuum: 29 in. Hg
End Vacuum: 0 in. Hg
Begin Sample Time: 1209
End Sample Time: 1239
Vacuum Gauge I.D. —
Flow Regulator I.D.: 0659
Particulate Filter I.D.: —

Notes: He CONCENTRATION AFTER 15 MIN = 3.6% (IN SHROUD)
ADD He → CONC = 40%

Volume Calcs: (1 in^3 = 16.39 mL)
1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing
3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping
3/4-inch Diameter Drill Bit (annular space): 7.24 mL per linear inch of annular space
1-inch Diameter Drill Bit (annular space): 12.87 mL per linear inch of annular space

Handheld Meters:
RAE 2000 PID: Flow rate = 550 mL/min
Gas-Check Helium Meter: Flow rate = 2 mL/min

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No.: 1179-01
Site Name: PLAID PANTRY #112
Location: A-1SS (DOMINOS)
Install Date: 9-22-2016 Sample Date: 9-22-16

Vapor Probe Construction

Probe or Sample I.D.: A-1SS
Screen Material: STAINLESS STEEL
Tube or Piping Material: TEFLON
Tube or Piping Diameter (Nom.): 1/4 Inches
Slab Thickness: 5 inches
Probe Intake Depth: 3 (in)
Sub-Grade Aggregate Material: SILTY SAND

Indoor Air Information

Temperature: 67.6 °F
Barometric Pressure: 30.00 (in)
PID Reading: 0.4 ppm VOCs

Outdoor Air Information

Temperature: 55.7 °F
Barometric Pressure: 29.995 (in)

Purge Equipment

Peristaltic Pump / Purge Canister / Syringe
Purge Rate: 200 mL/min
Flow Controller Used? (Yes) / No Rate: 200 mL/min

TO-17 Sample Volume Calculation:

Reqired Volume: mL
Maximum Sample Rate: mL/min
Syringe Volume: mL
Number of Pulls:
Time for Each Pull: seconds

Purge Volume Calculation:

3/4" Annular Space = — in * (7.24 mL/in) = — mL
1" Annular Space = — in * (12.87 mL/in) = — mL
3/8" Probe Length = — in * (1.0 mL/in) = — mL
1/4" Tubing Length = 120 in * (0.37 mL/in) = 44.4 mL
Total Dead Volume: 44.4 mL
Volumes Purged: 2
Total Volume Purged: 88.8 mL
Purge Time: 26.6 SEC.

Leak Testing:

Tracer Material: He
Gas or Liquid? (Gas) / Liquid
Shroud Used? (Yes) / No
Concentration in Shroud (Pre): 50.1%
Concentration in Shroud (Post): 7.0%
Summa Train Tight? (Yes) / No

Subslab Vapor Measurements (During/After Purging)

Temperature: — °F
Pressure: — ( )
Background PID Reading: 0.1 ppm VOCs (OUTSIDE)
Purge PID Reading: 0.7 ppm VOCs
Post-Sample PID Reading: 1.0 ppm VOCs
Purge He Reading: 8 (ppm He) / % He
Post-Sample He Reading: 0 (ppm He) / % He
GEM Readings: 19.9 $\%O_2$
0.3 $\%CO_2$
0.0 $\%CH_4$

Sample Information

Sample I.D.: A-1SS
Canister I.D.: 32107
Sorbent Tube I.D.: —
Begin Vacuum: 30 in. Hg
End Vacuum: 8 in. Hg
Begin Sample Time: 1013
End Sample Time: 1046
Vacuum Gauge I.D. —
Flow Regulator I.D.: 20560
Particulate Filter I.D.: —

Notes: He CONCENTRATION AFTER 15 min = 5%
ADD HE - NEW CONC = 50%

Volume Calcs: (1 in^3 = 16.39 mL)
1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing
3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping
3/4-inch Diameter Drill Bit (annular space): 7.24 mL per linear inch of annular space
1-inch Diameter Drill Bit (annular space): 12.87 mL per linear inch of annular space

Handheld Meters:
RAE 2000 PID: Flow rate = 550 mL/min
Gas-Check Helium Meter: Flow rate = 2 mL/min

EES Environmental Consulting, Inc.

Soil Vapor & Subslab Vapor Sampling Sheet

EES Project No.: 1179-01
Site Name: PLAID PANTRY #112
Location: A-2SS (PLAID STORE)
Install Date: 9-22-16 Sample Date: 9-22-16

Vapor Probe Construction

Probe or Sample I.D.: A-2SS
Screen Material: STAINLESS STEEL
Tube or Piping Material: TEFLON
Tube or Piping Diameter (Nom.): 1/4" inches
Slab Thickness: 4" inches
Probe Intake Depth: 7 (INCHES)
Sub-Grade Aggregate Material: SILTY SAND

Indoor Air Information

Temperature: 71.4 °F
Barometric Pressure: 29.98 (in)
PID Reading: 0.4 ppm VOCs

Outdoor Air Information

Temperature: 52.8 °F
Barometric Pressure: 29.979 (in)

Purge Equipment

(Peristaltic Pump) / Purge Canister / Syringe
Purge Rate: 200 mL/min
Flow Controller Used? (Yes) / No Rate: 200

TO-17 Sample Volume Calculation:

Required Volume: — mL
Maximum Sample Rate: — mL/min
Syringe Volume: — mL
Number of Pulls: —
Time for Each Pull: — seconds

Purge Volume Calculation:

3/4" Annular Space = — in * (7.24 mL/in) = — mL
1" Annular Space = — in * (12.87 mL/in) = — mL
3/8" Probe Length = — in * (1.0 mL/in) = — mL
1/4" Tubing Length = 120 in * (0.37 mL/in) = 44 mL
Total Dead Volume: 44 mL
Volumes Purged: 2
Total Volume Purged: 88 mL
Purge Time: 88 mL (1 min / 200 mL)(60 sec / min) = 26.4 sec

Leak Testing:

Tracer Material: He
Gas or Liquid? (Gas) / Liquid
Shroud Used? (Yes) / No
Concentration in Shroud (Pre): 50 %
Concentration in Shroud (Post): 30 %
Summa Train Tight? (Yes) / No

Subslab Vapor Measurements (During/After Purging)

Temperature: — °F
(DEP) ~~Vacuum~~ Pressure: — ( )
Background PID Reading: 0.1 ppm VOCs (OUTSIDE)
Purge PID Reading: 2.3 ppm VOCs
Post-Sample PID Reading: 2.6 ppm VOCs
Purge He Reading: 0 ppm He / (% He)
Post-Sample He Reading: (DEP) ~~2.4.0~~ ppm He / (% He)
GEM Readings: 19.8 %O_2
0.6 %CO_2
0.0 %CH_4

Sample Information

Sample I.D.: A-2SS
Canister I.D.: 34320
Sorbent Tube I.D.: —
Begin Vacuum: 29 in. Hg
End Vacuum: 3 In. Hg
Begin Sample Time: 0919
End Sample Time: 0942
Vacuum Gauge I.D. —
Flow Regulator I.D.: 30905
Particulate Filter I.D.: —

Notes: He IN SHROUD AFTER 15 MIN = 20,000 ppm
OUTDOOR PID = 0.1 ppm
ADD He → NEW CONCENTRATION IN SHROUD = 78%

Volume Calcs: (1 in^3 = 16.39 mL)
1/4-inch O.D. (0.170-inch I.D.) Tubing: 0.37 mL per linear inch of tubing
3/8-inch O.D. (0.277-inch I.D.) Tubing/Pipe: 1.0 mL per linear inch of tubing/piping
3/4-inch Diameter Drill Bit (annular space): 7.24 mL per linear inch of annular space
1-inch Diameter Drill Bit (annular space): 12.87 mL per linear inch of annular space

Handheld Meters:
RAE 2000 PID: Flow rate = 550 mL/min
Gas-Check Helium Meter: Flow rate = 2 mL/min

Attachment B

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7/8/2016
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PLAID PANTRY #112
Project #: 1179-01
Workorder #: 1606511

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 6/24/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: 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 #: 1606511

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 #**	1179-01 PLAID PANTRY #112
DATE RECEIVED:	06/24/2016	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	07/08/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	S-33	Modified TO-15	8.4 "Hg	4.7 psi
01B	S-33	Modified TO-15	8.4 "Hg	4.7 psi
02A	S-36	Modified TO-15	9.4 "Hg	4.5 psi
02B	S-36	Modified TO-15	9.4 "Hg	4.5 psi
03A	S-34	Modified TO-15	8.6 "Hg	4.9 psi
03B	S-34	Modified TO-15	8.6 "Hg	4.9 psi
04A	S-35	Modified TO-15	9.2 "Hg	5 psi
04B	S-35	Modified TO-15	9.2 "Hg	5 psi
05A	S-31	Modified TO-15	9 "Hg	5.3 psi
05B	S-31	Modified TO-15	9 "Hg	5.3 psi
06A	Lab Blank	Modified TO-15	NA	NA
06B	Lab Blank	Modified TO-15	NA	NA
07A	CCV	Modified TO-15	NA	NA
07B	CCV	Modified TO-15	NA	NA
08A	LCS	Modified TO-15	NA	NA
08AA	LCSD	Modified TO-15	NA	NA
08B	LCS	Modified TO-15	NA	NA
08BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 07/08/16

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 TO-15 Full Scan/SIM
EES Environmental Consulting, Inc.
Workorder# 1606511

Five 6 Liter Summa Canister (SIM Certified) samples were received on June 24, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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.

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

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilutions were performed on samples S-36, S-34 and S-35 due to the presence of high level 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.

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. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The reported result for 4-Ethyltoluene in samples S-33 and S-36 may be biased high due to co-elution with a non target compound with similar characteristic ions. Both the primary and secondary ion for 4-Ethyltoluene exhibited potential interference.

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Nine 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.

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

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: S-33

Lab ID#: 1606511-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.18	9.2	0.40	20
Freon 11	0.18	38	1.0	210
Ethanol	0.92	15	1.7	29
Acetone	0.92	65	2.2	150
2-Propanol	0.92	1.3	2.2	3.2
Carbon Disulfide	0.92	1.4	2.8	4.2
Hexane	0.18	5.1	0.64	18
2-Butanone (Methyl Ethyl Ketone)	0.92	12	2.7	35
Cyclohexane	0.18	0.52	0.63	1.8
Heptane	0.18	2.7	0.75	11
4-Methyl-2-pentanone	0.18	0.66	0.75	2.7
2-Hexanone	0.92	1.1	3.7	4.6
Styrene	0.18	1.1	0.78	4.6
Propylbenzene	0.18	0.18	0.90	0.90
4-Ethyltoluene	0.18	0.58	0.90	2.8
1,3,5-Trimethylbenzene	0.18	0.18 J	0.90	0.89 J
1,2,4-Trimethylbenzene	0.18	0.50	0.90	2.5
TPH ref. to Gasoline (MW=100)	18	330	75	1300

Client Sample ID: S-33

Lab ID#: 1606511-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.037	0.51	0.18	2.5
Chloromethane	0.092	0.40	0.19	0.84
Vinyl Chloride	0.018	0.16	0.047	0.41
Benzene	0.092	4.4	0.29	14
Toluene	0.037	4.5	0.14	17
Tetrachloroethene	0.037	0.68	0.25	4.6
Ethyl Benzene	0.037	0.72	0.16	3.1
m,p-Xylene	0.073	1.5	0.32	6.7
o-Xylene	0.037	0.73	0.16	3.2

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

Client Sample ID: S-36

Lab ID#: 1606511-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.38	21	0.84	46
Freon 11	0.38	12	2.1	65
Ethanol	1.9	62	3.6	120
Acetone	1.9	72	4.5	170
2-Propanol	1.9	1.9	4.7	4.7
Hexane	0.38	4.8	1.3	17
2-Butanone (Methyl Ethyl Ketone)	1.9	17	5.6	50
Cyclohexane	0.38	0.50	1.3	1.7
Heptane	0.38	3.5	1.6	14
4-Methyl-2-pentanone	0.38	4.1	1.6	17
Styrene	0.38	4.6	1.6	20
Cumene	0.38	0.49	1.9	2.4
Propylbenzene	0.38	1.1	1.9	5.4
4-Ethyltoluene	0.38	5.2	1.9	26
1,3,5-Trimethylbenzene	0.38	1.6	1.9	7.8
1,2,4-Trimethylbenzene	0.38	5.2	1.9	26
TPH ref. to Gasoline (MW=100)	38	660	160	2700

Client Sample ID: S-36

Lab ID#: 1606511-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.076	0.53	0.38	2.6
Chloromethane	0.19	0.76	0.39	1.6
Vinyl Chloride	0.038	0.27	0.097	0.69
Chloroethane	0.19	0.19	0.50	0.50
Chloroform	0.076	1.5	0.37	7.4
Benzene	0.19	3.9	0.61	12
Trichloroethene	0.076	0.16	0.41	0.87
Toluene	0.076	4.5	0.29	17
Tetrachloroethene	0.076	4.0	0.52	27
Ethyl Benzene	0.076	18	0.33	78
m,p-Xylene	0.15	76	0.66	330

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

Client Sample ID: S-36

Lab ID#: 1606511-02B

o-Xylene	0.076	28	0.33	120

Client Sample ID: S-34

Lab ID#: 1606511-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.47	2.6	1.0	5.7
Freon 11	0.47	130	2.6	710
Ethanol	2.3	6.4	4.4	12
Acetone	2.3	66	5.5	160
Hexane	0.47	1.4	1.6	5.1
2-Butanone (Methyl Ethyl Ketone)	2.3	18	6.9	53
Heptane	0.47	1.1	1.9	4.6
4-Methyl-2-pentanone	0.47	1.2	1.9	5.0
Styrene	0.47	0.78	2.0	3.3
TPH ref. to Gasoline (MW=100)	47	280	190	1100

Client Sample ID: S-34

Lab ID#: 1606511-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.093	0.55	0.46	2.7
Benzene	0.23	1.8	0.74	5.6
Toluene	0.093	2.4	0.35	9.1
Tetrachloroethene	0.093	1.7	0.63	11
Ethyl Benzene	0.093	1.7	0.40	7.4
m,p-Xylene	0.19	7.8	0.81	34
o-Xylene	0.093	3.9	0.40	17

Client Sample ID: S-35

Lab ID#: 1606511-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	1.9	5.8	4.3	13

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

Client Sample ID: S-35

Lab ID#: 1606511-04A

Freon 11	1.9	20	11	110
Acetone	9.6	45	23	110
2-Butanone (Methyl Ethyl Ketone)	9.6	10	28	31
Tetrachloroethene	1.9	510	13	3500

Client Sample ID: S-35

Lab ID#: 1606511-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.39	0.72	1.9	3.5
Benzene	0.96	1.4	3.1	4.6
Toluene	0.39	1.5	1.4	5.8
Ethyl Benzene	0.39	4.9	1.7	21
m,p-Xylene	0.77	21	3.4	91
o-Xylene	0.39	7.9	1.7	34

Client Sample ID: S-31

Lab ID#: 1606511-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.19	2.7	1.1	15
Acetone	0.97	6.8	2.3	16
2-Propanol	0.97	6.5	2.4	16
Carbon Disulfide	0.97	5.9	3.0	18
Methylene Chloride	0.39	0.45	1.3	1.6
2-Butanone (Methyl Ethyl Ketone)	0.97	1.4	2.9	4.0
1,3-Dichlorobenzene	0.19	1.2	1.2	7.0

Client Sample ID: S-31

Lab ID#: 1606511-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.039	0.90	0.19	4.5
Chloromethane	0.097	0.42	0.20	0.88

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

Client Sample ID: S-31

Lab ID#: 1606511-05B

Vinyl Chloride	0.019	0.033	0.050	0.086
Chloroethane	0.097	0.10	0.26	0.28
Chloroform	0.039	0.48	0.19	2.4
Carbon Tetrachloride	0.039	0.12	0.24	0.76
Toluene	0.039	0.087	0.15	0.33
Tetrachloroethene	0.039	0.78	0.26	5.3
m,p-Xylene	0.078	0.11	0.34	0.48
o-Xylene	0.039	0.061	0.17	0.27

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Client Sample ID: S-33

Lab ID#: 1606511-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062708**	**Date of Collection: 6/22/16 9:13:00 AM**	
Dil. Factor:	**1.83**	**Date of Analysis: 6/27/16 02:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.18	9.2	0.40	20
Bromomethane	0.92	Not Detected	3.6	Not Detected
Freon 11	0.18	38	1.0	210
Ethanol	0.92	15	1.7	29
Freon 113	0.18	Not Detected	1.4	Not Detected
Acetone	0.92	65	2.2	150
2-Propanol	0.92	1.3	2.2	3.2
Carbon Disulfide	0.92	1.4	2.8	4.2
3-Chloropropene	0.92	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Hexane	0.18	5.1	0.64	18
2-Butanone (Methyl Ethyl Ketone)	0.92	12	2.7	35
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Cyclohexane	0.18	0.52	0.63	1.8
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Heptane	0.18	2.7	0.75	11
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.66	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
4-Methyl-2-pentanone	0.18	0.66	0.75	2.7
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
2-Hexanone	0.92	1.1	3.7	4.6
Dibromochloromethane	0.18	Not Detected	1.6	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Styrene	0.18	1.1	0.78	4.6
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.90	Not Detected
Propylbenzene	0.18	0.18	0.90	0.90
4-Ethyltoluene	0.18	0.58	0.90	2.8
1,3,5-Trimethylbenzene	0.18	0.18 J	0.90	0.89 J
1,2,4-Trimethylbenzene	0.18	0.50	0.90	2.5
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected
TPH ref. to Gasoline (MW=100)	18	330	75	1300

J = Estimated value.

Container Type: 6 Liter Summa Canister (SIM Certified)

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Client Sample ID: S-33

Lab ID#: 1606511-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062708**	**Date of Collection: 6/22/16 9:13:00 AM**	
Dil. Factor:	**1.83**	**Date of Analysis: 6/27/16 02:29 PM**	

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

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Client Sample ID: S-33

Lab ID#: 1606511-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062708sim**	**Date of Collection:**	**6/22/16 9:13:00 AM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**6/27/16 02:29 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.037	0.51	0.18	2.5
Freon 114	0.037	Not Detected	0.26	Not Detected
Chloromethane	0.092	0.40	0.19	0.84
Vinyl Chloride	0.018	0.16	0.047	0.41
Chloroethane	0.092	Not Detected	0.24	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.037	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.14	Not Detected
Chloroform	0.037	Not Detected	0.18	Not Detected
1,1,1-Trichloroethane	0.037	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.037	Not Detected	0.23	Not Detected
Benzene	0.092	4.4	0.29	14
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.037	Not Detected	0.20	Not Detected
Toluene	0.037	4.5	0.14	17
1,1,2-Trichloroethane	0.037	Not Detected	0.20	Not Detected
Tetrachloroethene	0.037	0.68	0.25	4.6
1,2-Dibromoethane (EDB)	0.037	Not Detected	0.28	Not Detected
Ethyl Benzene	0.037	0.72	0.16	3.1
m,p-Xylene	0.073	1.5	0.32	6.7
o-Xylene	0.037	0.73	0.16	3.2
1,1,2,2-Tetrachloroethane	0.037	Not Detected	0.25	Not Detected
1,4-Dichlorobenzene	0.037	Not Detected	0.22	Not Detected
Naphthalene	0.092	Not Detected	0.48	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: S-36

Lab ID#: 1606511-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062709**	**Date of Collection:**	**6/22/16 10:41:00 AM**
Dil. Factor:	**3.80**	**Date of Analysis:**	**6/27/16 03:08 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.38	21	0.84	46
Bromomethane	1.9	Not Detected	7.4	Not Detected
Freon 11	0.38	12	2.1	65
Ethanol	1.9	62	3.6	120
Freon 113	0.38	Not Detected	2.9	Not Detected
Acetone	1.9	72	4.5	170
2-Propanol	1.9	1.9	4.7	4.7
Carbon Disulfide	1.9	Not Detected	5.9	Not Detected
3-Chloropropene	1.9	Not Detected	5.9	Not Detected
Methylene Chloride	0.76	Not Detected	2.6	Not Detected
Hexane	0.38	4.8	1.3	17
2-Butanone (Methyl Ethyl Ketone)	1.9	17	5.6	50
Tetrahydrofuran	1.9	Not Detected	5.6	Not Detected
Cyclohexane	0.38	0.50	1.3	1.7
2,2,4-Trimethylpentane	1.9	Not Detected	8.9	Not Detected
Heptane	0.38	3.5	1.6	14
1,2-Dichloropropane	0.38	Not Detected	1.8	Not Detected
1,4-Dioxane	0.38	Not Detected	1.4	Not Detected
Bromodichloromethane	0.38	Not Detected	2.5	Not Detected
cis-1,3-Dichloropropene	0.38	Not Detected	1.7	Not Detected
4-Methyl-2-pentanone	0.38	4.1	1.6	17
trans-1,3-Dichloropropene	0.38	Not Detected	1.7	Not Detected
2-Hexanone	1.9	Not Detected	7.8	Not Detected
Dibromochloromethane	0.38	Not Detected	3.2	Not Detected
Chlorobenzene	0.38	Not Detected	1.7	Not Detected
Styrene	0.38	4.6	1.6	20
Bromoform	0.38	Not Detected	3.9	Not Detected
Cumene	0.38	0.49	1.9	2.4
Propylbenzene	0.38	1.1	1.9	5.4
4-Ethyltoluene	0.38	5.2	1.9	26
1,3,5-Trimethylbenzene	0.38	1.6	1.9	7.8
1,2,4-Trimethylbenzene	0.38	5.2	1.9	26
1,3-Dichlorobenzene	0.38	Not Detected	2.3	Not Detected
alpha-Chlorotoluene	0.38	Not Detected	2.0	Not Detected
1,2-Dichlorobenzene	0.38	Not Detected	2.3	Not Detected
1,2,4-Trichlorobenzene	1.9	Not Detected	14	Not Detected
Hexachlorobutadiene	1.9	Not Detected	20	Not Detected
TPH ref. to Gasoline (MW=100)	38	660	160	2700

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits

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Client Sample ID: S-36

Lab ID#: 1606511-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062709**	**Date of Collection: 6/22/16 10:41:00 AM**	
Dil. Factor:	**3.80**	**Date of Analysis: 6/27/16 03:08 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: S-36

Lab ID#: 1606511-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062709sim**	**Date of Collection: 6/22/16 10:41:00 AM**	
Dil. Factor:	**3.80**	**Date of Analysis: 6/27/16 03:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.076	0.53	0.38	2.6
Freon 114	0.076	Not Detected	0.53	Not Detected
Chloromethane	0.19	0.76	0.39	1.6
Vinyl Chloride	0.038	0.27	0.097	0.69
Chloroethane	0.19	0.19	0.50	0.50
1,1-Dichloroethene	0.038	Not Detected	0.15	Not Detected
trans-1,2-Dichloroethene	0.38	Not Detected	1.5	Not Detected
Methyl tert-butyl ether	0.38	Not Detected	1.4	Not Detected
1,1-Dichloroethane	0.076	Not Detected	0.31	Not Detected
cis-1,2-Dichloroethene	0.076	Not Detected	0.30	Not Detected
Chloroform	0.076	1.5	0.37	7.4
1,1,1-Trichloroethane	0.076	Not Detected	0.41	Not Detected
Carbon Tetrachloride	0.076	Not Detected	0.48	Not Detected
Benzene	0.19	3.9	0.61	12
1,2-Dichloroethane	0.076	Not Detected	0.31	Not Detected
Trichloroethene	0.076	0.16	0.41	0.87
Toluene	0.076	4.5	0.29	17
1,1,2-Trichloroethane	0.076	Not Detected	0.41	Not Detected
Tetrachloroethene	0.076	4.0	0.52	27
1,2-Dibromoethane (EDB)	0.076	Not Detected	0.58	Not Detected
Ethyl Benzene	0.076	18	0.33	78
m,p-Xylene	0.15	76	0.66	330
o-Xylene	0.076	28	0.33	120
1,1,2,2-Tetrachloroethane	0.076	Not Detected	0.52	Not Detected
1,4-Dichlorobenzene	0.076	Not Detected	0.46	Not Detected
Naphthalene	0.19	Not Detected	1.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

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

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Client Sample ID: S-34

Lab ID#: 1606511-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062712**	**Date of Collection: 6/22/16 11:06:00 AM**	
Dil. Factor:	**4.67**	**Date of Analysis: 6/27/16 06:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.47	2.6	1.0	5.7
Bromomethane	2.3	Not Detected	9.1	Not Detected
Freon 11	0.47	130	2.6	710
Ethanol	2.3	6.4	4.4	12
Freon 113	0.47	Not Detected	3.6	Not Detected
Acetone	2.3	66	5.5	160
2-Propanol	2.3	Not Detected	5.7	Not Detected
Carbon Disulfide	2.3	Not Detected	7.3	Not Detected
3-Chloropropene	2.3	Not Detected	7.3	Not Detected
Methylene Chloride	0.93	Not Detected	3.2	Not Detected
Hexane	0.47	1.4	1.6	5.1
2-Butanone (Methyl Ethyl Ketone)	2.3	18	6.9	53
Tetrahydrofuran	2.3	Not Detected	6.9	Not Detected
Cyclohexane	0.47	Not Detected	1.6	Not Detected
2,2,4-Trimethylpentane	2.3	Not Detected	11	Not Detected
Heptane	0.47	1.1	1.9	4.6
1,2-Dichloropropane	0.47	Not Detected	2.2	Not Detected
1,4-Dioxane	0.47	Not Detected	1.7	Not Detected
Bromodichloromethane	0.47	Not Detected	3.1	Not Detected
cis-1,3-Dichloropropene	0.47	Not Detected	2.1	Not Detected
4-Methyl-2-pentanone	0.47	1.2	1.9	5.0
trans-1,3-Dichloropropene	0.47	Not Detected	2.1	Not Detected
2-Hexanone	2.3	Not Detected	9.6	Not Detected
Dibromochloromethane	0.47	Not Detected	4.0	Not Detected
Chlorobenzene	0.47	Not Detected	2.1	Not Detected
Styrene	0.47	0.78	2.0	3.3
Bromoform	0.47	Not Detected	4.8	Not Detected
Cumene	0.47	Not Detected	2.3	Not Detected
Propylbenzene	0.47	Not Detected	2.3	Not Detected
4-Ethyltoluene	0.47	Not Detected	2.3	Not Detected
1,3,5-Trimethylbenzene	0.47	Not Detected	2.3	Not Detected
1,2,4-Trimethylbenzene	0.47	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	0.47	Not Detected	2.8	Not Detected
alpha-Chlorotoluene	0.47	Not Detected	2.4	Not Detected
1,2-Dichlorobenzene	0.47	Not Detected	2.8	Not Detected
1,2,4-Trichlorobenzene	2.3	Not Detected	17	Not Detected
Hexachlorobutadiene	2.3	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	47	280	190	1100

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits

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Client Sample ID: S-34

Lab ID#: 1606511-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062712**	**Date of Collection: 6/22/16 11:06:00 AM**	
Dil. Factor:	**4.67**	**Date of Analysis: 6/27/16 06:30 PM**	

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

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Client Sample ID: S-34

Lab ID#: 1606511-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062712sim**	**Date of Collection:**	**6/22/16 11:06:00 AM**
Dil. Factor:	**4.67**	**Date of Analysis:**	**6/27/16 06:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.093	0.55	0.46	2.7
Freon 114	0.093	Not Detected	0.65	Not Detected
Chloromethane	0.23	Not Detected	0.48	Not Detected
Vinyl Chloride	0.047	Not Detected	0.12	Not Detected
Chloroethane	0.23	Not Detected	0.62	Not Detected
1,1-Dichloroethene	0.047	Not Detected	0.18	Not Detected
trans-1,2-Dichloroethene	0.47	Not Detected	1.8	Not Detected
Methyl tert-butyl ether	0.47	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.093	Not Detected	0.38	Not Detected
cis-1,2-Dichloroethene	0.093	Not Detected	0.37	Not Detected
Chloroform	0.093	Not Detected	0.46	Not Detected
1,1,1-Trichloroethane	0.093	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.093	Not Detected	0.59	Not Detected
Benzene	0.23	1.8	0.74	5.6
1,2-Dichloroethane	0.093	Not Detected	0.38	Not Detected
Trichloroethene	0.093	Not Detected	0.50	Not Detected
Toluene	0.093	2.4	0.35	9.1
1,1,2-Trichloroethane	0.093	Not Detected	0.51	Not Detected
Tetrachloroethene	0.093	1.7	0.63	11
1,2-Dibromoethane (EDB)	0.093	Not Detected	0.72	Not Detected
Ethyl Benzene	0.093	1.7	0.40	7.4
m,p-Xylene	0.19	7.8	0.81	34
o-Xylene	0.093	3.9	0.40	17
1,1,2,2-Tetrachloroethane	0.093	Not Detected	0.64	Not Detected
1,4-Dichlorobenzene	0.093	Not Detected	0.56	Not Detected
Naphthalene	0.23	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: S-35

Lab ID#: 1606511-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062714**	**Date of Collection:**	**6/22/16 12:25:00 PM**
Dil. Factor:	**19.3**	**Date of Analysis:**	**6/27/16 08:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	1.9	5.8	4.3	13
Bromomethane	9.6	Not Detected	37	Not Detected
Freon 11	1.9	20	11	110
Ethanol	9.6	Not Detected	18	Not Detected
Freon 113	1.9	Not Detected	15	Not Detected
Acetone	9.6	45	23	110
2-Propanol	9.6	Not Detected	24	Not Detected
Carbon Disulfide	9.6	Not Detected	30	Not Detected
3-Chloropropene	9.6	Not Detected	30	Not Detected
Methylene Chloride	3.9	Not Detected	13	Not Detected
Hexane	1.9	Not Detected	6.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	9.6	10	28	31
Tetrahydrofuran	9.6	Not Detected	28	Not Detected
Cyclohexane	1.9	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	9.6	Not Detected	45	Not Detected
Heptane	1.9	Not Detected	7.9	Not Detected
1,2-Dichloropropane	1.9	Not Detected	8.9	Not Detected
1,4-Dioxane	1.9	Not Detected	7.0	Not Detected
Bromodichloromethane	1.9	Not Detected	13	Not Detected
cis-1,3-Dichloropropene	1.9	Not Detected	8.8	Not Detected
4-Methyl-2-pentanone	1.9	Not Detected	7.9	Not Detected
trans-1,3-Dichloropropene	1.9	Not Detected	8.8	Not Detected
Tetrachloroethene	1.9	510	13	3500
2-Hexanone	9.6	Not Detected	40	Not Detected
Dibromochloromethane	1.9	Not Detected	16	Not Detected
Chlorobenzene	1.9	Not Detected	8.9	Not Detected
Styrene	1.9	Not Detected	8.2	Not Detected
Bromoform	1.9	Not Detected	20	Not Detected
Cumene	1.9	Not Detected	9.5	Not Detected
Propylbenzene	1.9	Not Detected	9.5	Not Detected
4-Ethyltoluene	1.9	Not Detected	9.5	Not Detected
1,3,5-Trimethylbenzene	1.9	Not Detected	9.5	Not Detected
1,2,4-Trimethylbenzene	1.9	Not Detected	9.5	Not Detected
1,3-Dichlorobenzene	1.9	Not Detected	12	Not Detected
alpha-Chlorotoluene	1.9	Not Detected	10	Not Detected
1,2-Dichlorobenzene	1.9	Not Detected	12	Not Detected
1,2,4-Trichlorobenzene	9.6	Not Detected	72	Not Detected
Hexachlorobutadiene	9.6	Not Detected	100	Not Detected
TPH ref. to Gasoline (MW=100)	190	Not Detected	790	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

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Client Sample ID: S-35

Lab ID#: 1606511-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062714**	**Date of Collection: 6/22/16 12:25:00 PM**	
Dil. Factor:	**19.3**	**Date of Analysis: 6/27/16 08:32 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: S-35

Lab ID#: 1606511-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062714sim**	**Date of Collection: 6/22/16 12:25:00 PM**	
Dil. Factor:	**19.3**	**Date of Analysis: 6/27/16 08:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.39	0.72	1.9	3.5
Freon 114	0.39	Not Detected	2.7	Not Detected
Chloromethane	0.96	Not Detected	2.0	Not Detected
Vinyl Chloride	0.19	Not Detected	0.49	Not Detected
Chloroethane	0.96	Not Detected	2.5	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.76	Not Detected
trans-1,2-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	1.9	Not Detected	7.0	Not Detected
1,1-Dichloroethane	0.39	Not Detected	1.6	Not Detected
cis-1,2-Dichloroethene	0.39	Not Detected	1.5	Not Detected
Chloroform	0.39	Not Detected	1.9	Not Detected
1,1,1-Trichloroethane	0.39	Not Detected	2.1	Not Detected
Carbon Tetrachloride	0.39	Not Detected	2.4	Not Detected
Benzene	0.96	1.4	3.1	4.6
1,2-Dichloroethane	0.39	Not Detected	1.6	Not Detected
Trichloroethene	0.39	Not Detected	2.1	Not Detected
Toluene	0.39	1.5	1.4	5.8
1,1,2-Trichloroethane	0.39	Not Detected	2.1	Not Detected
1,2-Dibromoethane (EDB)	0.39	Not Detected	3.0	Not Detected
Ethyl Benzene	0.39	4.9	1.7	21
m,p-Xylene	0.77	21	3.4	91
o-Xylene	0.39	7.9	1.7	34
1,1,2,2-Tetrachloroethane	0.39	Not Detected	2.6	Not Detected
1,4-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
Naphthalene	0.96	Not Detected	5.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: S-31

Lab ID#: 1606511-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062713**	**Date of Collection: 6/22/16 2:28:00 PM**	
Dil. Factor:	**1.94**	**Date of Analysis: 6/27/16 07:53 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.19	Not Detected	0.43	Not Detected
Bromomethane	0.97	Not Detected	3.8	Not Detected
Freon 11	0.19	2.7	1.1	15
Ethanol	0.97	Not Detected	1.8	Not Detected
Freon 113	0.19	Not Detected	1.5	Not Detected
Acetone	0.97	6.8	2.3	16
2-Propanol	0.97	6.5	2.4	16
Carbon Disulfide	0.97	5.9	3.0	18
3-Chloropropene	0.97	Not Detected	3.0	Not Detected
Methylene Chloride	0.39	0.45	1.3	1.6
Hexane	0.19	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.97	1.4	2.9	4.0
Tetrahydrofuran	0.97	Not Detected	2.9	Not Detected
Cyclohexane	0.19	Not Detected	0.67	Not Detected
2,2,4-Trimethylpentane	0.97	Not Detected	4.5	Not Detected
Heptane	0.19	Not Detected	0.80	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.90	Not Detected
1,4-Dioxane	0.19	Not Detected	0.70	Not Detected
Bromodichloromethane	0.19	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.88	Not Detected
4-Methyl-2-pentanone	0.19	Not Detected	0.79	Not Detected
trans-1,3-Dichloropropene	0.19	Not Detected	0.88	Not Detected
2-Hexanone	0.97	Not Detected	4.0	Not Detected
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
Chlorobenzene	0.19	Not Detected	0.89	Not Detected
Styrene	0.19	Not Detected	0.83	Not Detected
Bromoform	0.19	Not Detected	2.0	Not Detected
Cumene	0.19	Not Detected	0.95	Not Detected
Propylbenzene	0.19	Not Detected	0.95	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.95	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.95	Not Detected
1,2,4-Trimethylbenzene	0.19	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.19	1.2	1.2	7.0
alpha-Chlorotoluene	0.19	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	0.97	Not Detected	7.2	Not Detected
Hexachlorobutadiene	0.97	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	19	Not Detected	79	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits

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Client Sample ID: S-31

Lab ID#: 1606511-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062713**	**Date of Collection: 6/22/16 2:28:00 PM**	
Dil. Factor:	**1.94**	**Date of Analysis: 6/27/16 07:53 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: S-31

Lab ID#: 1606511-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062713sim**	**Date of Collection: 6/22/16 2:28:00 PM**	
Dil. Factor:	**1.94**	**Date of Analysis: 6/27/16 07:53 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.039	0.90	0.19	4.5
Freon 114	0.039	Not Detected	0.27	Not Detected
Chloromethane	0.097	0.42	0.20	0.88
Vinyl Chloride	0.019	0.033	0.050	0.086
Chloroethane	0.097	0.10	0.26	0.28
1,1-Dichloroethene	0.019	Not Detected	0.077	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.77	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.70	Not Detected
1,1-Dichloroethane	0.039	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.039	Not Detected	0.15	Not Detected
Chloroform	0.039	0.48	0.19	2.4
1,1,1-Trichloroethane	0.039	Not Detected	0.21	Not Detected
Carbon Tetrachloride	0.039	0.12	0.24	0.76
Benzene	0.097	Not Detected	0.31	Not Detected
1,2-Dichloroethane	0.039	Not Detected	0.16	Not Detected
Trichloroethene	0.039	Not Detected	0.21	Not Detected
Toluene	0.039	0.087	0.15	0.33
1,1,2-Trichloroethane	0.039	Not Detected	0.21	Not Detected
Tetrachloroethene	0.039	0.78	0.26	5.3
1,2-Dibromoethane (EDB)	0.039	Not Detected	0.30	Not Detected
Ethyl Benzene	0.039	Not Detected	0.17	Not Detected
m,p-Xylene	0.078	0.11	0.34	0.48
o-Xylene	0.039	0.061	0.17	0.27
1,1,2,2-Tetrachloroethane	0.039	Not Detected	0.27	Not Detected
1,4-Dichlorobenzene	0.039	Not Detected	0.23	Not Detected
Naphthalene	0.097	Not Detected	0.51	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1606511-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062707**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 01:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: Lab Blank

Lab ID#: 1606511-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062707**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 01:35 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1606511-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062707sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 01:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.050	Not Detected	0.10	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
Naphthalene	0.050	Not Detected	0.26	Not Detected

Container Type: NA - Not Applicable

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

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Client Sample ID: CCV

Lab ID#: 1606511-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 10:44 AM**	

Compound	%Recovery
1,3-Butadiene	103
Bromomethane	110
Freon 11	102
Ethanol	109
Freon 113	102
Acetone	102
2-Propanol	106
Carbon Disulfide	107
3-Chloropropene	115
Methylene Chloride	102
Hexane	104
2-Butanone (Methyl Ethyl Ketone)	109
Tetrahydrofuran	105
Cyclohexane	106
2,2,4-Trimethylpentane	104
Heptane	106
1,2-Dichloropropane	102
1,4-Dioxane	108
Bromodichloromethane	119
cis-1,3-Dichloropropene	113
4-Methyl-2-pentanone	112
trans-1,3-Dichloropropene	121
Tetrachloroethene	106
2-Hexanone	114
Dibromochloromethane	127
Chlorobenzene	109
Styrene	124
Bromoform	131 Q
Cumene	112
Propylbenzene	103
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	103
alpha-Chlorotoluene	118
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	89
TPH ref. to Gasoline (MW=100)	100

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

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Client Sample ID: CCV

Lab ID#: 1606511-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 10:44 AM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 1606511-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062703sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 10:44 AM**	

Compound	%Recovery
Freon 12	102
Freon 114	103
Chloromethane	92
Vinyl Chloride	99
Chloroethane	108
1,1-Dichloroethene	103
trans-1,2-Dichloroethene	101
Methyl tert-butyl ether	110
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	104
Chloroform	103
1,1,1-Trichloroethane	105
Carbon Tetrachloride	138
Benzene	87
1,2-Dichloroethane	98
Trichloroethene	101
Toluene	107
1,1,2-Trichloroethane	109
Tetrachloroethene	102
1,2-Dibromoethane (EDB)	114
Ethyl Benzene	113
m,p-Xylene	115
o-Xylene	114
1,1,2,2-Tetrachloroethane	110
1,4-Dichlorobenzene	89
Naphthalene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 1606511-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 11:32 AM**	

Compound	%Recovery	Method Limits
1,3-Butadiene	103	70-130
Bromomethane	108	70-130
Freon 11	108	70-130
Ethanol	113	70-130
Freon 113	103	70-130
Acetone	101	70-130
2-Propanol	111	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	108	70-130
Methylene Chloride	105	70-130
Hexane	112	70-130
2-Butanone (Methyl Ethyl Ketone)	110	70-130
Tetrahydrofuran	106	70-130
Cyclohexane	111	70-130
2,2,4-Trimethylpentane	113	70-130
Heptane	114	70-130
1,2-Dichloropropane	109	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	116	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	116	70-130
trans-1,3-Dichloropropene	119	70-130
Tetrachloroethene	110	70-130
2-Hexanone	112	70-130
Dibromochloromethane	124	70-130
Chlorobenzene	110	70-130
Styrene	118	70-130
Bromoform	128	70-130
Cumene	111	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	112	70-130
1,2,4-Trimethylbenzene	111	70-130
1,3-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	118	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	82	70-130
Hexachlorobutadiene	77	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

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Client Sample ID: LCS

Lab ID#: 1606511-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 11:32 AM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCSD

Lab ID#: 1606511-08AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 12:17 PM**	

Compound	%Recovery	Method Limits
1,3-Butadiene	103	70-130
Bromomethane	110	70-130
Freon 11	108	70-130
Ethanol	113	70-130
Freon 113	103	70-130
Acetone	101	70-130
2-Propanol	111	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	108	70-130
Methylene Chloride	104	70-130
Hexane	112	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
Tetrahydrofuran	105	70-130
Cyclohexane	111	70-130
2,2,4-Trimethylpentane	112	70-130
Heptane	111	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	116	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	114	70-130
trans-1,3-Dichloropropene	119	70-130
Tetrachloroethene	110	70-130
2-Hexanone	112	70-130
Dibromochloromethane	122	70-130
Chlorobenzene	110	70-130
Styrene	117	70-130
Bromoform	127	70-130
Cumene	111	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	113	70-130
1,3-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	75	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

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Client Sample ID: LCSD

Lab ID#: 1606511-08AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 12:17 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 1606511-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062704sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 11:32 AM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	109	70-130
Chloromethane	97	70-130
Vinyl Chloride	104	70-130
Chloroethane	116	70-130
1,1-Dichloroethene	104	70-130
trans-1,2-Dichloroethene	106	70-130
Methyl tert-butyl ether	112	70-130
1,1-Dichloroethane	104	70-130
cis-1,2-Dichloroethene	103	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	108	70-130
Carbon Tetrachloride	136	60-140
Benzene	92	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	105	70-130
Toluene	112	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	106	70-130
1,2-Dibromoethane (EDB)	117	70-130
Ethyl Benzene	115	70-130
m,p-Xylene	115	70-130
o-Xylene	118	70-130
1,1,2,2-Tetrachloroethane	113	70-130
1,4-Dichlorobenzene	89	70-130
Naphthalene	90	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCSD

Lab ID#: 1606511-08BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**20062705sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/27/16 12:17 PM**	

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	110	70-130
Chloromethane	98	70-130
Vinyl Chloride	104	70-130
Chloroethane	117	70-130
1,1-Dichloroethene	105	70-130
trans-1,2-Dichloroethene	106	70-130
Methyl tert-butyl ether	112	70-130
1,1-Dichloroethane	105	70-130
cis-1,2-Dichloroethene	103	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	109	70-130
Carbon Tetrachloride	136	60-140
Benzene	92	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	105	70-130
Toluene	112	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	105	70-130
1,2-Dibromoethane (EDB)	116	70-130
Ethyl Benzene	114	70-130
m,p-Xylene	114	70-130
o-Xylene	117	70-130
1,1,2,2-Tetrachloroethane	113	70-130
1,4-Dichlorobenzene	88	70-130
Naphthalene	88	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	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

Project Manager CHRIS RHEA
Collected by: (Print and Sign) DANIELE PETERS DBPeters
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 # 1179-01
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	S-33	00308	6-22-16	0913	TO-15 Hi/Lo*	30	8.5		
02A	S-36	SH34202	↓	1041	↓	28.5	7		
03A	S-34	34450		1106		29	8		
04A	S-35	00323		1225		30	9		
05A	S-31	00318	↓	1428	↓	29.5	8		

Relinquished by: (signature) Date/Time
Daniele B Peters 6-22-16 1530
Received by: (signature) Date/Time 6/24/16
Andria Augustin EATL 1400

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

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

Notes:
*FULL LIST VOCs

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No (None)	16[illegible]511

Form 1293 rev.11

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11/4/2016
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PLAID PANTRY #112
Project #: 1179-01
Workorder #: 1609617AR2

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 9/26/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: 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 #: 1609617AR2

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 #**	1179-01 PLAID PANTRY #112
DATE RECEIVED:	09/26/2016	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	10/06/2016		
DATE REISSUED:	11/04/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	A-4	Modified TO-15	7.0 "Hg	5 psi
01B	A-4	Modified TO-15	7.0 "Hg	5 psi
02A	A-5	Modified TO-15	6.5 "Hg	5 psi
02B	A-5	Modified TO-15	6.5 "Hg	5 psi
03A	A-7	Modified TO-15	5.5 "Hg	5 psi
03B	A-7	Modified TO-15	5.5 "Hg	5 psi
04A	A-6	Modified TO-15	5.5 "Hg	5 psi
04B	A-6	Modified TO-15	5.5 "Hg	5 psi
05A	A-8	Modified TO-15	7.5 "Hg	5 psi
05B	A-8	Modified TO-15	7.5 "Hg	5 psi
06A	A-9	Modified TO-15	7.0 "Hg	5 psi
06B	A-9	Modified TO-15	7.0 "Hg	5 psi
07A	A-2	Modified TO-15	5.5 "Hg	5 psi
07B	A-2	Modified TO-15	5.5 "Hg	5 psi
08A	A-3	Modified TO-15	6.5 "Hg	5 psi
08B	A-3	Modified TO-15	6.5 "Hg	5 psi
09A	A-1	Modified TO-15	8.0 "Hg	5 psi
09B	A-1	Modified TO-15	8.0 "Hg	5 psi
11A	A-2ss	Modified TO-15	8.0 "Hg	5 psi
12A	A-1ss	Modified TO-15	6.5 "Hg	5 psi
13A	A-3ss	Modified TO-15	8.0 "Hg	5 psi
14A	Lab Blank	Modified TO-15	NA	NA
14B	Lab Blank	Modified TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1609617AR2

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 #**	1179-01 PLAID PANTRY #112
DATE RECEIVED:	09/26/2016	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	10/06/2016		
DATE REISSUED:	11/04/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
14C	Lab Blank	Modified TO-15	NA	NA
14D	Lab Blank	Modified TO-15	NA	NA
14E	Lab Blank	Modified TO-15	NA	NA
15A	CCV	Modified TO-15	NA	NA
15B	CCV	Modified TO-15	NA	NA
15C	CCV	Modified TO-15	NA	NA
15D	CCV	Modified TO-15	NA	NA
15E	CCV	Modified TO-15	NA	NA
16A	LCS	Modified TO-15	NA	NA
16AA	LCSD	Modified TO-15	NA	NA
16B	LCS	Modified TO-15	NA	NA
16BB	LCSD	Modified TO-15	NA	NA
16C	LCS	Modified TO-15	NA	NA
16CC	LCSD	Modified TO-15	NA	NA
16D	LCS	Modified TO-15	NA	NA
16DD	LCSD	Modified TO-15	NA	NA
16E	LCS	Modified TO-15	NA	NA
16EE	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 11/04/16

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 TO-15 Full Scan/SIM
EES Environmental Consulting, Inc.
Workorder# 1609617AR2

Twelve 6 Liter Summa Canister (SIM Certified) samples were received on September 26, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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.

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

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody was missing method information. EATL proceeded with the analysis as per the original contract or verbal agreement.

The Chain of Custody (COC) information for sample A-3 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.

Analytical Notes

The results for samples A-4, A-5, A-7, A-6, A-8, A-9, A-2, A-3, and A-1 were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Samples A-2ss, A-1ss, and A-3ss were diluted and transferred from SIM/Low Level analysis to full scan TO-15 due to high levels of target compounds.

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.

Ethanol exceeded the instrument's calibration range for samples A-2, A-3, and A-1 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. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Per client request, the workorder was reissued on 10/28/2016 to report estimated values for target compound hits that are below the reporting limit but greater than the method detection limit. All the canisters used for this project have been certified to the reporting limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Per client request, the workorder was reissued on 11/04/2016 to report the analytical results using a different format in ug/m3.

Definition of Data Qualifying Flags

Nine 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.

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

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-4		
Lab ID:	1609617AR2-01A	**Date/Time Analyzed:**	9/28/16 06:07 PM
Date/Time Collecte	9/21/16 09:34 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092816r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.26	1.3	6.5	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.17	0.34	0.86	0.31 J
1,2-Dichlorobenzene	95-50-1	0.32	0.42	1.0	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.32	0.81	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.15	0.34	0.86	Not Detected
1,3-Butadiene	106-99-0	0.056	0.15	0.39	Not Detected
1,3-Dichlorobenzene	541-73-1	0.14	0.42	1.0	Not Detected
1,4-Dioxane	123-91-1	0.19	0.25	0.63	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.52	0.82	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.18	0.52	2.6	1.5 J
2-Hexanone	591-78-6	0.38	0.72	3.6	Not Detected
2-Propanol	67-63-0	0.16	0.43	2.2	1.8 J
3-Chloropropene	107-05-1	0.19	0.55	2.7	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.34	0.86	0.25 J
4-Methyl-2-pentanone	108-10-1	0.13	0.29	0.72	Not Detected
Acetone	67-64-1	0.28	0.42	2.1	15
alpha-Chlorotoluene	100-44-7	0.19	0.36	0.90	Not Detected
Bromodichloromethane	75-27-4	0.18	0.47	1.2	Not Detected
Bromoform	75-25-2	0.34	0.72	1.8	Not Detected
Bromomethane	74-83-9	1.0	1.0	3.4	Not Detected
Carbon Disulfide	75-15-0	0.22	0.54	2.7	Not Detected
Chlorobenzene	108-90-7	0.20	0.32	0.80	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.17	0.32	0.79	Not Detected
Cumene	98-82-8	0.14	0.34	0.86	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-4		
Lab ID:	1609617AR2-01A	**Date/Time Analyzed:**	9/28/16 06:07 PM
Date/Time Collecte	9/21/16 09:34 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092816r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.10	0.24	0.60	0.14 J
Dibromochloromethane	124-48-1	0.24	0.60	1.5	Not Detected
Ethanol	64-17-5	0.35	0.35	1.6	36
Freon 11	75-69-4	0.12	0.39	0.98	1.4
Freon 113	76-13-1	0.38	0.54	1.3	0.68 J
Heptane	142-82-5	0.16	0.29	0.72	0.44 J
Hexachlorobutadiene	87-68-3	0.47	1.9	9.3	Not Detected
Hexane	110-54-3	0.13	0.25	0.62	0.44 J
Methylene Chloride	75-09-2	0.092	0.24	1.2	0.99 J
Propylbenzene	103-65-1	0.16	0.34	0.86	Not Detected
Styrene	100-42-5	0.076	0.30	0.74	Not Detected
Tetrahydrofuran	109-99-9	0.44	0.52	2.6	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	72	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.17	0.32	0.79	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-4		
Lab ID:	1609617AR2-01B	**Date/Time Analyzed:**	9/28/16 06:07 PM
Date/Time Collecte	9/21/16 09:34 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092816simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0080	0.048	0.19	0.041 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0078	0.060	0.24	Not Detected
1,1,2-Trichloroethane	79-00-5	0.018	0.048	0.19	Not Detected
1,1-Dichloroethane	75-34-3	0.0051	0.035	0.14	Not Detected
1,1-Dichloroethene	75-35-4	0.0062	0.035	0.069	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0073	0.067	0.27	Not Detected
1,2-Dichloroethane	107-06-2	0.0077	0.035	0.14	0.058 J
1,4-Dichlorobenzene	106-46-7	0.012	0.053	0.21	0.040 J
Benzene	71-43-2	0.0041	0.028	0.28	0.26 J
Carbon Tetrachloride	56-23-5	0.014	0.055	0.22	0.50
Chloroethane	75-00-3	0.034	0.034	0.23	0.070 J
Chloroform	67-66-3	0.0055	0.043	0.17	0.091 J
Chloromethane	74-87-3	0.026	0.026	0.18	1.0
cis-1,2-Dichloroethene	156-59-2	0.0073	0.035	0.14	0.74
Ethyl Benzene	100-41-4	0.0069	0.038	0.15	1.9
Freon 114	76-14-2	0.017	0.061	0.24	0.12 J
Freon 12	75-71-8	0.013	0.043	0.17	2.7
m,p-Xylene	108-38-3	0.010	0.038	0.30	8.6
Methyl tert-butyl ether	1634-04-4	0.0033	0.032	0.63	Not Detected
Naphthalene	91-20-3	0.012	0.037	0.46	0.065 J
o-Xylene	95-47-6	0.0095	0.038	0.15	3.2
Tetrachloroethene	127-18-4	0.012	0.059	0.24	0.31
Toluene	108-88-3	0.0058	0.033	0.13	13
trans-1,2-Dichloroethene	156-60-5	0.0076	0.035	0.69	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-4		
Lab ID:	1609617AR2-01B	**Date/Time Analyzed:**	9/28/16 06:07 PM
Date/Time Collecte	9/21/16 09:34 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092816simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0073	0.047	0.19	0.29
Vinyl Chloride	75-01-4	0.0066	0.022	0.045	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	118
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-5		
Lab ID:	1609617AR2-02A	**Date/Time Analyzed:**	9/28/16 06:58 PM
Date/Time Collecte	9/21/16 09:37 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092817r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.26	1.3	6.3	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.16	0.34	0.84	Not Detected
1,2-Dichlorobenzene	95-50-1	0.32	0.41	1.0	Not Detected
1,2-Dichloropropane	78-87-5	0.17	0.32	0.79	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.15	0.34	0.84	Not Detected
1,3-Butadiene	106-99-0	0.055	0.15	0.38	Not Detected
1,3-Dichlorobenzene	541-73-1	0.13	0.41	1.0	Not Detected
1,4-Dioxane	123-91-1	0.18	0.25	0.62	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.51	0.80	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.18	0.50	2.5	2.4 J
2-Hexanone	591-78-6	0.37	0.70	3.5	Not Detected
2-Propanol	67-63-0	0.16	0.42	2.1	1.2 J
3-Chloropropene	107-05-1	0.19	0.54	2.7	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.34	0.84	Not Detected
4-Methyl-2-pentanone	108-10-1	0.13	0.28	0.70	Not Detected
Acetone	67-64-1	0.28	0.41	2.0	12
alpha-Chlorotoluene	100-44-7	0.19	0.35	0.88	Not Detected
Bromodichloromethane	75-27-4	0.18	0.46	1.1	Not Detected
Bromoform	75-25-2	0.33	0.71	1.8	Not Detected
Bromomethane	74-83-9	1.0	1.0	3.3	Not Detected
Carbon Disulfide	75-15-0	0.21	0.53	2.7	Not Detected
Chlorobenzene	108-90-7	0.20	0.31	0.79	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.16	0.31	0.78	Not Detected
Cumene	98-82-8	0.13	0.34	0.84	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-5		
Lab ID:	1609617AR2-02A	**Date/Time Analyzed:**	9/28/16 06:58 PM
Date/Time Collecte	9/21/16 09:37 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092817r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.099	0.24	0.59	Not Detected
Dibromochloromethane	124-48-1	0.24	0.58	1.4	Not Detected
Ethanol	64-17-5	0.34	0.34	1.6	5.4
Freon 11	75-69-4	0.12	0.38	0.96	1.4
Freon 113	76-13-1	0.37	0.52	1.3	0.54 J
Heptane	142-82-5	0.16	0.28	0.70	Not Detected
Hexachlorobutadiene	87-68-3	0.46	1.8	9.1	Not Detected
Hexane	110-54-3	0.12	0.24	0.60	0.13 J
Methylene Chloride	75-09-2	0.090	0.24	1.2	0.82 J
Propylbenzene	103-65-1	0.15	0.34	0.84	Not Detected
Styrene	100-42-5	0.074	0.29	0.73	Not Detected
Tetrahydrofuran	109-99-9	0.43	0.50	2.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	70	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.17	0.31	0.78	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	107
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-5		
Lab ID:	1609617AR2-02B	**Date/Time Analyzed:**	9/28/16 06:58 PM
Date/Time Collecte	9/21/16 09:37 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092817simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0078	0.047	0.19	0.026 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0076	0.059	0.23	Not Detected
1,1,2-Trichloroethane	79-00-5	0.017	0.047	0.19	Not Detected
1,1-Dichloroethane	75-34-3	0.0050	0.035	0.14	Not Detected
1,1-Dichloroethene	75-35-4	0.0060	0.034	0.068	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0071	0.066	0.26	Not Detected
1,2-Dichloroethane	107-06-2	0.0075	0.035	0.14	0.049 J
1,4-Dichlorobenzene	106-46-7	0.011	0.051	0.20	0.021 J
Benzene	71-43-2	0.0040	0.027	0.27	0.19 J
Carbon Tetrachloride	56-23-5	0.014	0.054	0.22	0.50
Chloroethane	75-00-3	0.033	0.033	0.22	0.045 J
Chloroform	67-66-3	0.0053	0.042	0.17	0.078 J
Chloromethane	74-87-3	0.026	0.026	0.18	0.93
cis-1,2-Dichloroethene	156-59-2	0.0071	0.034	0.14	Not Detected
Ethyl Benzene	100-41-4	0.0068	0.037	0.15	0.077 J
Freon 114	76-14-2	0.016	0.060	0.24	0.12 J
Freon 12	75-71-8	0.013	0.042	0.17	2.7
m,p-Xylene	108-38-3	0.0097	0.037	0.30	0.24 J
Methyl tert-butyl ether	1634-04-4	0.0032	0.031	0.62	Not Detected
Naphthalene	91-20-3	0.012	0.036	0.45	0.10 J
o-Xylene	95-47-6	0.0093	0.037	0.15	0.073 J
Tetrachloroethene	127-18-4	0.011	0.058	0.23	0.030 J
Toluene	108-88-3	0.0057	0.032	0.13	0.60
trans-1,2-Dichloroethene	156-60-5	0.0074	0.034	0.68	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-5		
Lab ID:	1609617AR2-02B	**Date/Time Analyzed:**	9/28/16 06:58 PM
Date/Time Collecte	9/21/16 09:37 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092817simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0072	0.046	0.18	Not Detected
Vinyl Chloride	75-01-4	0.0065	0.022	0.044	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	118
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-7		
Lab ID:	1609617AR2-03A	**Date/Time Analyzed:**	9/28/16 07:40 PM
Date/Time Collecte	9/21/16 09:40 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092818r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.24	1.2	6.1	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.16	0.32	0.81	0.42 J
1,2-Dichlorobenzene	95-50-1	0.30	0.39	0.99	Not Detected
1,2-Dichloropropane	78-87-5	0.16	0.30	0.76	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.14	0.32	0.81	0.18 J
1,3-Butadiene	106-99-0	0.053	0.14	0.36	Not Detected
1,3-Dichlorobenzene	541-73-1	0.13	0.39	0.99	Not Detected
1,4-Dioxane	123-91-1	0.18	0.24	0.59	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.49	0.77	3.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.17	0.48	2.4	0.78 J
2-Hexanone	591-78-6	0.35	0.67	3.4	Not Detected
2-Propanol	67-63-0	0.15	0.40	2.0	0.84 J
3-Chloropropene	107-05-1	0.18	0.51	2.6	Not Detected
4-Ethyltoluene	622-96-8	0.17	0.32	0.81	0.43 J
4-Methyl-2-pentanone	108-10-1	0.12	0.27	0.67	Not Detected
Acetone	67-64-1	0.26	0.39	1.9	9.8
alpha-Chlorotoluene	100-44-7	0.18	0.34	0.85	Not Detected
Bromodichloromethane	75-27-4	0.17	0.44	1.1	Not Detected
Bromoform	75-25-2	0.31	0.68	1.7	Not Detected
Bromomethane	74-83-9	0.98	0.98	3.2	Not Detected
Carbon Disulfide	75-15-0	0.20	0.51	2.6	Not Detected
Chlorobenzene	108-90-7	0.19	0.30	0.76	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.16	0.30	0.74	Not Detected
Cumene	98-82-8	0.13	0.32	0.81	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-7		
Lab ID:	1609617AR2-03A	**Date/Time Analyzed:**	9/28/16 07:40 PM
Date/Time Collecte	9/21/16 09:40 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092818r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.095	0.22	0.56	0.29 J
Dibromochloromethane	124-48-1	0.23	0.56	1.4	Not Detected
Ethanol	64-17-5	0.33	0.33	1.5	9.1
Freon 11	75-69-4	0.12	0.37	0.92	1.5
Freon 113	76-13-1	0.35	0.50	1.2	0.55 J
Heptane	142-82-5	0.15	0.27	0.67	0.51 J
Hexachlorobutadiene	87-68-3	0.44	1.7	8.7	Not Detected
Hexane	110-54-3	0.12	0.23	0.58	0.61
Methylene Chloride	75-09-2	0.086	0.23	1.1	0.94 J
Propylbenzene	103-65-1	0.15	0.32	0.81	Not Detected
Styrene	100-42-5	0.071	0.28	0.70	Not Detected
Tetrahydrofuran	109-99-9	0.42	0.48	2.4	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	67	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.16	0.30	0.74	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-7		
Lab ID:	1609617AR2-03B	**Date/Time Analyzed:**	9/28/16 07:40 PM
Date/Time Collecte	9/21/16 09:40 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092818simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0075	0.045	0.18	0.017 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0073	0.056	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.016	0.045	0.18	Not Detected
1,1-Dichloroethane	75-34-3	0.0048	0.033	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.0058	0.032	0.065	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0068	0.063	0.25	Not Detected
1,2-Dichloroethane	107-06-2	0.0072	0.033	0.13	0.046 J
1,4-Dichlorobenzene	106-46-7	0.011	0.049	0.20	Not Detected
Benzene	71-43-2	0.0038	0.026	0.26	1.2
Carbon Tetrachloride	56-23-5	0.013	0.052	0.21	0.50
Chloroethane	75-00-3	0.031	0.031	0.22	Not Detected
Chloroform	67-66-3	0.0051	0.040	0.16	0.080 J
Chloromethane	74-87-3	0.024	0.024	0.17	0.97
cis-1,2-Dichloroethene	156-59-2	0.0068	0.032	0.13	Not Detected
Ethyl Benzene	100-41-4	0.0065	0.036	0.14	0.38
Freon 114	76-14-2	0.016	0.057	0.23	0.12 J
Freon 12	75-71-8	0.012	0.040	0.16	2.7
m,p-Xylene	108-38-3	0.0093	0.036	0.28	1.2
Methyl tert-butyl ether	1634-04-4	0.0031	0.030	0.59	Not Detected
Naphthalene	91-20-3	0.012	0.034	0.43	0.17 J
o-Xylene	95-47-6	0.0089	0.036	0.14	0.42
Tetrachloroethene	127-18-4	0.011	0.056	0.22	0.048 J
Toluene	108-88-3	0.0054	0.031	0.12	3.6
trans-1,2-Dichloroethene	156-60-5	0.0072	0.032	0.65	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-7		
Lab ID:	1609617AR2-03B	**Date/Time Analyzed:**	9/28/16 07:40 PM
Date/Time Collecte	9/21/16 09:40 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092818simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0069	0.044	0.18	Not Detected
Vinyl Chloride	75-01-4	0.0062	0.021	0.042	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	120
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-6		
Lab ID:	1609617AR2-04A	**Date/Time Analyzed:**	9/28/16 08:19 PM
Date/Time Collecte	9/21/16 09:41 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092819r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.24	1.2	6.1	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.16	0.32	0.81	0.83
1,2-Dichlorobenzene	95-50-1	0.30	0.39	0.99	Not Detected
1,2-Dichloropropane	78-87-5	0.16	0.30	0.76	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.14	0.32	0.81	0.18 J
1,3-Butadiene	106-99-0	0.053	0.14	0.36	Not Detected
1,3-Dichlorobenzene	541-73-1	0.13	0.39	0.99	Not Detected
1,4-Dioxane	123-91-1	0.18	0.24	0.59	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.49	0.77	3.8	0.73 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.17	0.48	2.4	5.3
2-Hexanone	591-78-6	0.35	0.67	3.4	0.46 J
2-Propanol	67-63-0	0.15	0.40	2.0	3.6
3-Chloropropene	107-05-1	0.18	0.51	2.6	Not Detected
4-Ethyltoluene	622-96-8	0.17	0.32	0.81	0.43 J
4-Methyl-2-pentanone	108-10-1	0.12	0.27	0.67	Not Detected
Acetone	67-64-1	0.26	0.39	1.9	38
alpha-Chlorotoluene	100-44-7	0.18	0.34	0.85	Not Detected
Bromodichloromethane	75-27-4	0.17	0.44	1.1	Not Detected
Bromoform	75-25-2	0.31	0.68	1.7	Not Detected
Bromomethane	74-83-9	0.98	0.98	3.2	Not Detected
Carbon Disulfide	75-15-0	0.20	0.51	2.6	Not Detected
Chlorobenzene	108-90-7	0.19	0.30	0.76	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.16	0.30	0.74	Not Detected
Cumene	98-82-8	0.13	0.32	0.81	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-6		
Lab ID:	1609617AR2-04A	**Date/Time Analyzed:**	9/28/16 08:19 PM
Date/Time Collecte	9/21/16 09:41 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092819r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.095	0.22	0.56	0.28 J
Dibromochloromethane	124-48-1	0.23	0.56	1.4	Not Detected
Ethanol	64-17-5	0.33	0.33	1.5	20
Freon 11	75-69-4	0.12	0.37	0.92	1.5
Freon 113	76-13-1	0.35	0.50	1.2	0.51 J
Heptane	142-82-5	0.15	0.27	0.67	0.88
Hexachlorobutadiene	87-68-3	0.44	1.7	8.7	Not Detected
Hexane	110-54-3	0.12	0.23	0.58	0.23 J
Methylene Chloride	75-09-2	0.086	0.23	1.1	1.2
Propylbenzene	103-65-1	0.15	0.32	0.81	0.21 J
Styrene	100-42-5	0.071	0.28	0.70	Not Detected
Tetrahydrofuran	109-99-9	0.42	0.48	2.4	7.9
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	67	65
trans-1,3-Dichloropropene	10061-02-6	0.16	0.30	0.74	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	88

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-6		
Lab ID:	1609617AR2-04B	**Date/Time Analyzed:**	9/28/16 08:19 PM
Date/Time Collecte	9/21/16 09:41 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092819simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0075	0.045	0.18	0.016 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0073	0.056	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.016	0.045	0.18	Not Detected
1,1-Dichloroethane	75-34-3	0.0048	0.033	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.0058	0.032	0.065	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0068	0.063	0.25	Not Detected
1,2-Dichloroethane	107-06-2	0.0072	0.033	0.13	0.094 J
1,4-Dichlorobenzene	106-46-7	0.011	0.049	0.20	0.030 J
Benzene	71-43-2	0.0038	0.026	0.26	0.30
Carbon Tetrachloride	56-23-5	0.013	0.052	0.21	0.48
Chloroethane	75-00-3	0.031	0.031	0.22	0.047 J
Chloroform	67-66-3	0.0051	0.040	0.16	0.12 J
Chloromethane	74-87-3	0.024	0.024	0.17	0.92
cis-1,2-Dichloroethene	156-59-2	0.0068	0.032	0.13	Not Detected
Ethyl Benzene	100-41-4	0.0065	0.036	0.14	0.52
Freon 114	76-14-2	0.016	0.057	0.23	0.12 J
Freon 12	75-71-8	0.012	0.040	0.16	2.4
m,p-Xylene	108-38-3	0.0093	0.036	0.28	2.0
Methyl tert-butyl ether	1634-04-4	0.0031	0.030	0.59	Not Detected
Naphthalene	91-20-3	0.012	0.034	0.43	0.84
o-Xylene	95-47-6	0.0089	0.036	0.14	0.80
Tetrachloroethene	127-18-4	0.011	0.056	0.22	0.091 J
Toluene	108-88-3	0.0054	0.031	0.12	9.2
trans-1,2-Dichloroethene	156-60-5	0.0072	0.032	0.65	0.053 J

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-6		
Lab ID:	1609617AR2-04B	**Date/Time Analyzed:**	9/28/16 08:19 PM
Date/Time Collecte	9/21/16 09:41 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092819simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0069	0.044	0.18	0.067 J
Vinyl Chloride	75-01-4	0.0062	0.021	0.042	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	113
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	90

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-8		
Lab ID:	1609617AR2-05A	**Date/Time Analyzed:**	9/28/16 08:58 PM
Date/Time Collecte	9/21/16 09:42 AM	**Dilution Factor:**	1.79
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092820r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.27	1.3	6.6	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.17	0.35	0.88	Not Detected
1,2-Dichlorobenzene	95-50-1	0.33	0.43	1.1	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.33	0.83	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.15	0.35	0.88	Not Detected
1,3-Butadiene	106-99-0	0.058	0.16	0.40	Not Detected
1,3-Dichlorobenzene	541-73-1	0.14	0.43	1.1	Not Detected
1,4-Dioxane	123-91-1	0.19	0.26	0.64	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.53	0.84	4.2	18
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.19	0.53	2.6	1.7 J
2-Hexanone	591-78-6	0.38	0.73	3.7	Not Detected
2-Propanol	67-63-0	0.17	0.44	2.2	4.1
3-Chloropropene	107-05-1	0.20	0.56	2.8	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.35	0.88	Not Detected
4-Methyl-2-pentanone	108-10-1	0.13	0.29	0.73	Not Detected
Acetone	67-64-1	0.29	0.42	2.1	15
alpha-Chlorotoluene	100-44-7	0.20	0.37	0.93	Not Detected
Bromodichloromethane	75-27-4	0.18	0.48	1.2	Not Detected
Bromoform	75-25-2	0.34	0.74	1.8	Not Detected
Bromomethane	74-83-9	1.1	1.1	3.5	Not Detected
Carbon Disulfide	75-15-0	0.22	0.56	2.8	Not Detected
Chlorobenzene	108-90-7	0.21	0.33	0.82	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.17	0.32	0.81	Not Detected
Cumene	98-82-8	0.14	0.35	0.88	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-8		
Lab ID:	1609617AR2-05A	**Date/Time Analyzed:**	9/28/16 08:58 PM
Date/Time Collecte	9/21/16 09:42 AM	**Dilution Factor:**	1.79
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092820r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.10	0.25	0.62	Not Detected
Dibromochloromethane	124-48-1	0.25	0.61	1.5	Not Detected
Ethanol	64-17-5	0.36	0.36	1.7	7.4
Freon 11	75-69-4	0.13	0.40	1.0	1.4
Freon 113	76-13-1	0.38	0.55	1.4	0.59 J
Heptane	142-82-5	0.17	0.29	0.73	Not Detected
Hexachlorobutadiene	87-68-3	0.48	1.9	9.5	Not Detected
Hexane	110-54-3	0.13	0.25	0.63	0.33 J
Methylene Chloride	75-09-2	0.094	0.25	1.2	1.3
Propylbenzene	103-65-1	0.16	0.35	0.88	Not Detected
Styrene	100-42-5	0.078	0.30	0.76	Not Detected
Tetrahydrofuran	109-99-9	0.45	0.53	2.6	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	73	110
trans-1,3-Dichloropropene	10061-02-6	0.17	0.32	0.81	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	118
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-8		
Lab ID:	1609617AR2-05B	**Date/Time Analyzed:**	9/28/16 08:58 PM
Date/Time Collecte	9/21/16 09:42 AM	**Dilution Factor:**	1.79
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092820simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0082	0.049	0.20	0.026 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0080	0.061	0.24	Not Detected
1,1,2-Trichloroethane	79-00-5	0.018	0.049	0.20	Not Detected
1,1-Dichloroethane	75-34-3	0.0052	0.036	0.14	Not Detected
1,1-Dichloroethene	75-35-4	0.0063	0.035	0.071	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0074	0.069	0.28	Not Detected
1,2-Dichloroethane	107-06-2	0.0079	0.036	0.14	0.070 J
1,4-Dichlorobenzene	106-46-7	0.012	0.054	0.22	0.025 J
Benzene	71-43-2	0.0042	0.028	0.28	0.30
Carbon Tetrachloride	56-23-5	0.014	0.056	0.22	0.47
Chloroethane	75-00-3	0.034	0.034	0.24	Not Detected
Chloroform	67-66-3	0.0056	0.044	0.17	0.083 J
Chloromethane	74-87-3	0.027	0.027	0.18	0.94
cis-1,2-Dichloroethene	156-59-2	0.0074	0.035	0.14	Not Detected
Ethyl Benzene	100-41-4	0.0071	0.039	0.16	1.0
Freon 114	76-14-2	0.017	0.062	0.25	0.11 J
Freon 12	75-71-8	0.014	0.044	0.18	2.6
m,p-Xylene	108-38-3	0.010	0.039	0.31	4.5
Methyl tert-butyl ether	1634-04-4	0.0034	0.032	0.64	Not Detected
Naphthalene	91-20-3	0.013	0.038	0.47	0.079 J
o-Xylene	95-47-6	0.0097	0.039	0.16	1.3
Tetrachloroethene	127-18-4	0.012	0.061	0.24	0.049 J
Toluene	108-88-3	0.0059	0.034	0.13	18
trans-1,2-Dichloroethene	156-60-5	0.0078	0.035	0.71	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-8		
Lab ID:	1609617AR2-05B	**Date/Time Analyzed:**	9/28/16 08:58 PM
Date/Time Collecte	9/21/16 09:42 AM	**Dilution Factor:**	1.79
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092820simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0075	0.048	0.19	0.048 J
Vinyl Chloride	75-01-4	0.0068	0.023	0.046	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	124
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-9		
Lab ID:	1609617AR2-06A	**Date/Time Analyzed:**	9/28/16 10:32 PM
Date/Time Collecte	9/21/16 09:43 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092822r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.26	1.3	6.5	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.17	0.34	0.86	1.1
1,2-Dichlorobenzene	95-50-1	0.32	0.42	1.0	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.32	0.81	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.15	0.34	0.86	0.40 J
1,3-Butadiene	106-99-0	0.056	0.15	0.39	Not Detected
1,3-Dichlorobenzene	541-73-1	0.14	0.42	1.0	0.18 J
1,4-Dioxane	123-91-1	0.19	0.25	0.63	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.52	0.82	4.1	2.4 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.18	0.52	2.6	0.60 J
2-Hexanone	591-78-6	0.38	0.72	3.6	Not Detected
2-Propanol	67-63-0	0.16	0.43	2.2	1.2 J
3-Chloropropene	107-05-1	0.19	0.55	2.7	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.34	0.86	1.1
4-Methyl-2-pentanone	108-10-1	0.13	0.29	0.72	Not Detected
Acetone	67-64-1	0.28	0.42	2.1	6.6
alpha-Chlorotoluene	100-44-7	0.19	0.36	0.90	Not Detected
Bromodichloromethane	75-27-4	0.18	0.47	1.2	Not Detected
Bromoform	75-25-2	0.34	0.72	1.8	Not Detected
Bromomethane	74-83-9	1.0	1.0	3.4	Not Detected
Carbon Disulfide	75-15-0	0.22	0.54	2.7	Not Detected
Chlorobenzene	108-90-7	0.20	0.32	0.80	2.5
cis-1,3-Dichloropropene	10061-01-5	0.17	0.32	0.79	Not Detected
Cumene	98-82-8	0.14	0.34	0.86	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-9		
Lab ID:	1609617AR2-06A	**Date/Time Analyzed:**	9/28/16 10:32 PM
Date/Time Collecte	9/21/16 09:43 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092822r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.10	0.24	0.60	2.0
Dibromochloromethane	124-48-1	0.24	0.60	1.5	Not Detected
Ethanol	64-17-5	0.35	0.35	1.6	38
Freon 11	75-69-4	0.12	0.39	0.98	1.4
Freon 113	76-13-1	0.38	0.54	1.3	0.52 J
Heptane	142-82-5	0.16	0.29	0.72	2.2
Hexachlorobutadiene	87-68-3	0.47	1.9	9.3	Not Detected
Hexane	110-54-3	0.13	0.25	0.62	5.9
Methylene Chloride	75-09-2	0.092	0.24	1.2	1.0 J
Propylbenzene	103-65-1	0.16	0.34	0.86	0.36 J
Styrene	100-42-5	0.076	0.30	0.74	Not Detected
Tetrahydrofuran	109-99-9	0.44	0.52	2.6	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	72	350
trans-1,3-Dichloropropene	10061-02-6	0.17	0.32	0.79	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	92

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-9		
Lab ID:	1609617AR2-06B	**Date/Time Analyzed:**	9/28/16 10:32 PM
Date/Time Collecte	9/21/16 09:43 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092822simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0080	0.048	0.19	0.025 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0078	0.060	0.24	Not Detected
1,1,2-Trichloroethane	79-00-5	0.018	0.048	0.19	Not Detected
1,1-Dichloroethane	75-34-3	0.0051	0.035	0.14	Not Detected
1,1-Dichloroethene	75-35-4	0.0062	0.035	0.069	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0073	0.067	0.27	Not Detected
1,2-Dichloroethane	107-06-2	0.0077	0.035	0.14	0.054 J
1,4-Dichlorobenzene	106-46-7	0.012	0.053	0.21	0.81
Benzene	71-43-2	0.0041	0.028	0.28	3.3
Carbon Tetrachloride	56-23-5	0.014	0.055	0.22	0.49
Chloroethane	75-00-3	0.034	0.034	0.23	Not Detected
Chloroform	67-66-3	0.0055	0.043	0.17	0.10 J
Chloromethane	74-87-3	0.026	0.026	0.18	1.0
cis-1,2-Dichloroethene	156-59-2	0.0073	0.035	0.14	Not Detected
Ethyl Benzene	100-41-4	0.0069	0.038	0.15	1.2
Freon 114	76-14-2	0.017	0.061	0.24	0.13 J
Freon 12	75-71-8	0.013	0.043	0.17	2.7
m,p-Xylene	108-38-3	0.010	0.038	0.30	4.1
Methyl tert-butyl ether	1634-04-4	0.0033	0.032	0.63	Not Detected
Naphthalene	91-20-3	0.012	0.037	0.46	0.27 J
o-Xylene	95-47-6	0.0095	0.038	0.15	1.3
Tetrachloroethene	127-18-4	0.012	0.059	0.24	0.039 J
Toluene	108-88-3	0.0058	0.033	0.13	13
trans-1,2-Dichloroethene	156-60-5	0.0076	0.035	0.69	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-9		
Lab ID:	1609617AR2-06B	**Date/Time Analyzed:**	9/28/16 10:32 PM
Date/Time Collecte	9/21/16 09:43 AM	**Dilution Factor:**	1.75
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092822simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0073	0.047	0.19	0.045 J
Vinyl Chloride	75-01-4	0.0066	0.022	0.045	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	122
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	92

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-2		
Lab ID:	1609617AR2-07A	**Date/Time Analyzed:**	9/29/16 01:26 PM
Date/Time Collecte	9/21/16 09:44 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092908r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.24	1.2	6.1	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.16	0.32	0.81	0.86
1,2-Dichlorobenzene	95-50-1	0.30	0.39	0.99	Not Detected
1,2-Dichloropropane	78-87-5	0.16	0.30	0.76	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.14	0.32	0.81	0.33 J
1,3-Butadiene	106-99-0	0.053	0.14	0.36	0.74
1,3-Dichlorobenzene	541-73-1	0.13	0.39	0.99	Not Detected
1,4-Dioxane	123-91-1	0.18	0.24	0.59	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.49	0.77	3.8	0.59 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.17	0.48	2.4	2.8
2-Hexanone	591-78-6	0.35	0.67	3.4	Not Detected
2-Propanol	67-63-0	0.15	0.40	2.0	47
3-Chloropropene	107-05-1	0.18	0.51	2.6	Not Detected
4-Ethyltoluene	622-96-8	0.17	0.32	0.81	0.71 J
4-Methyl-2-pentanone	108-10-1	0.12	0.27	0.67	Not Detected
Acetone	67-64-1	0.26	0.39	1.9	83
alpha-Chlorotoluene	100-44-7	0.18	0.34	0.85	Not Detected
Bromodichloromethane	75-27-4	0.17	0.44	1.1	Not Detected
Bromoform	75-25-2	0.31	0.68	1.7	Not Detected
Bromomethane	74-83-9	0.98	0.98	3.2	Not Detected
Carbon Disulfide	75-15-0	0.20	0.51	2.6	Not Detected
Chlorobenzene	108-90-7	0.19	0.30	0.76	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.16	0.30	0.74	Not Detected
Cumene	98-82-8	0.13	0.32	0.81	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-2		
Lab ID:	1609617AR2-07A	**Date/Time Analyzed:**	9/29/16 01:26 PM
Date/Time Collecte	9/21/16 09:44 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092908r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.095	0.22	0.56	0.76
Dibromochloromethane	124-48-1	0.23	0.56	1.4	Not Detected
Ethanol	64-17-5	0.33	0.33	1.5	1200 E
Freon 11	75-69-4	0.12	0.37	0.92	21
Freon 113	76-13-1	0.35	0.50	1.2	0.55 J
Heptane	142-82-5	0.15	0.27	0.67	1.6
Hexachlorobutadiene	87-68-3	0.44	1.7	8.7	Not Detected
Hexane	110-54-3	0.12	0.23	0.58	2.6
Methylene Chloride	75-09-2	0.086	0.23	1.1	1.5
Propylbenzene	103-65-1	0.15	0.32	0.81	0.18 J
Styrene	100-42-5	0.071	0.28	0.70	0.45 J
Tetrahydrofuran	109-99-9	0.42	0.48	2.4	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	67	980
trans-1,3-Dichloropropene	10061-02-6	0.16	0.30	0.74	Not Detected

E = Exceeds instrument calibration range.
J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-2		
Lab ID:	1609617AR2-07B	**Date/Time Analyzed:**	9/29/16 01:26 PM
Date/Time Collecte	9/21/16 09:44 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092908simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0075	0.045	0.18	0.028 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0073	0.056	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.016	0.045	0.18	Not Detected
1,1-Dichloroethane	75-34-3	0.0048	0.033	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.0058	0.032	0.065	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0068	0.063	0.25	0.022 J
1,2-Dichloroethane	107-06-2	0.0072	0.033	0.13	0.083 J
1,4-Dichlorobenzene	106-46-7	0.011	0.049	0.20	0.21
Benzene	71-43-2	0.0038	0.026	0.26	1.5
Carbon Tetrachloride	56-23-5	0.013	0.052	0.21	0.46
Chloroethane	75-00-3	0.031	0.031	0.22	0.053 J
Chloroform	67-66-3	0.0051	0.040	0.16	0.33
Chloromethane	74-87-3	0.024	0.024	0.17	1.4
cis-1,2-Dichloroethene	156-59-2	0.0068	0.032	0.13	Not Detected
Ethyl Benzene	100-41-4	0.0065	0.036	0.14	0.64
Freon 114	76-14-2	0.016	0.057	0.23	0.12 J
Freon 12	75-71-8	0.012	0.040	0.16	9.6
m,p-Xylene	108-38-3	0.0093	0.036	0.28	1.9
Methyl tert-butyl ether	1634-04-4	0.0031	0.030	0.59	Not Detected
Naphthalene	91-20-3	0.012	0.034	0.43	0.33 J
o-Xylene	95-47-6	0.0089	0.036	0.14	0.78
Tetrachloroethene	127-18-4	0.011	0.056	0.22	0.099 J
Toluene	108-88-3	0.0054	0.031	0.12	8.5
trans-1,2-Dichloroethene	156-60-5	0.0072	0.032	0.65	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-2		
Lab ID:	1609617AR2-07B	**Date/Time Analyzed:**	9/29/16 01:26 PM
Date/Time Collecte	9/21/16 09:44 AM	**Dilution Factor:**	1.64
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092908simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0069	0.044	0.18	0.12 J
Vinyl Chloride	75-01-4	0.0062	0.021	0.042	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	115
4-Bromofluorobenzene	460-00-4	70-130	97
Toluene-d8	2037-26-5	70-130	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-3		
Lab ID:	1609617AR2-08A	**Date/Time Analyzed:**	9/29/16 02:04 PM
Date/Time Collecte	9/21/16 09:50 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092909r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.26	1.3	6.3	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.16	0.34	0.84	1.0
1,2-Dichlorobenzene	95-50-1	0.32	0.41	1.0	Not Detected
1,2-Dichloropropane	78-87-5	0.17	0.32	0.79	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.15	0.34	0.84	0.34 J
1,3-Butadiene	106-99-0	0.055	0.15	0.38	Not Detected
1,3-Dichlorobenzene	541-73-1	0.13	0.41	1.0	Not Detected
1,4-Dioxane	123-91-1	0.18	0.25	0.62	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.51	0.80	4.0	0.52 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.18	0.50	2.5	3.2
2-Hexanone	591-78-6	0.37	0.70	3.5	Not Detected
2-Propanol	67-63-0	0.16	0.42	2.1	48
3-Chloropropene	107-05-1	0.19	0.54	2.7	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.34	0.84	0.74 J
4-Methyl-2-pentanone	108-10-1	0.13	0.28	0.70	Not Detected
Acetone	67-64-1	0.28	0.41	2.0	86
alpha-Chlorotoluene	100-44-7	0.19	0.35	0.88	Not Detected
Bromodichloromethane	75-27-4	0.18	0.46	1.1	Not Detected
Bromoform	75-25-2	0.33	0.71	1.8	Not Detected
Bromomethane	74-83-9	1.0	1.0	3.3	Not Detected
Carbon Disulfide	75-15-0	0.21	0.53	2.7	Not Detected
Chlorobenzene	108-90-7	0.20	0.31	0.79	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.16	0.31	0.78	Not Detected
Cumene	98-82-8	0.13	0.34	0.84	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-3		
Lab ID:	1609617AR2-08A	**Date/Time Analyzed:**	9/29/16 02:04 PM
Date/Time Collecte	9/21/16 09:50 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092909r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.099	0.24	0.59	0.73
Dibromochloromethane	124-48-1	0.24	0.58	1.4	Not Detected
Ethanol	64-17-5	0.34	0.34	1.6	1300 E
Freon 11	75-69-4	0.12	0.38	0.96	20
Freon 113	76-13-1	0.37	0.52	1.3	0.56 J
Heptane	142-82-5	0.16	0.28	0.70	1.2
Hexachlorobutadiene	87-68-3	0.46	1.8	9.1	Not Detected
Hexane	110-54-3	0.12	0.24	0.60	2.8
Methylene Chloride	75-09-2	0.090	0.24	1.2	1.4
Propylbenzene	103-65-1	0.15	0.34	0.84	0.17 J
Styrene	100-42-5	0.074	0.29	0.73	0.45 J
Tetrahydrofuran	109-99-9	0.43	0.50	2.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	70	980
trans-1,3-Dichloropropene	10061-02-6	0.17	0.31	0.78	Not Detected

E = Exceeds instrument calibration range.
J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-3		
Lab ID:	1609617AR2-08B	**Date/Time Analyzed:**	9/29/16 02:04 PM
Date/Time Collecte	9/21/16 09:50 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092909simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0078	0.047	0.19	0.031 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0076	0.059	0.23	Not Detected
1,1,2-Trichloroethane	79-00-5	0.017	0.047	0.19	Not Detected
1,1-Dichloroethane	75-34-3	0.0050	0.035	0.14	Not Detected
1,1-Dichloroethene	75-35-4	0.0060	0.034	0.068	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0071	0.066	0.26	Not Detected
1,2-Dichloroethane	107-06-2	0.0075	0.035	0.14	0.074 J
1,4-Dichlorobenzene	106-46-7	0.011	0.051	0.20	0.075 J
Benzene	71-43-2	0.0040	0.027	0.27	1.4
Carbon Tetrachloride	56-23-5	0.014	0.054	0.22	0.54
Chloroethane	75-00-3	0.033	0.033	0.22	0.043 J
Chloroform	67-66-3	0.0053	0.042	0.17	0.34
Chloromethane	74-87-3	0.026	0.026	0.18	1.4
cis-1,2-Dichloroethene	156-59-2	0.0071	0.034	0.14	Not Detected
Ethyl Benzene	100-41-4	0.0068	0.037	0.15	0.58
Freon 114	76-14-2	0.016	0.060	0.24	0.12 J
Freon 12	75-71-8	0.013	0.042	0.17	8.9
m,p-Xylene	108-38-3	0.0097	0.037	0.30	1.8
Methyl tert-butyl ether	1634-04-4	0.0032	0.031	0.62	Not Detected
Naphthalene	91-20-3	0.012	0.036	0.45	0.36 J
o-Xylene	95-47-6	0.0093	0.037	0.15	0.73
Tetrachloroethene	127-18-4	0.011	0.058	0.23	0.093 J
Toluene	108-88-3	0.0057	0.032	0.13	7.5
trans-1,2-Dichloroethene	156-60-5	0.0074	0.034	0.68	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-3		
Lab ID:	1609617AR2-08B	**Date/Time Analyzed:**	9/29/16 02:04 PM
Date/Time Collecte	9/21/16 09:50 AM	**Dilution Factor:**	1.71
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092909simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0072	0.046	0.18	0.10 J
Vinyl Chloride	75-01-4	0.0065	0.022	0.044	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-1		
Lab ID:	1609617AR2-09A	**Date/Time Analyzed:**	9/29/16 02:43 PM
Date/Time Collecte	9/21/16 09:55 AM	**Dilution Factor:**	1.83
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092910r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.27	1.4	6.8	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.18	0.36	0.90	0.25 J
1,2-Dichlorobenzene	95-50-1	0.34	0.44	1.1	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.34	0.84	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.16	0.36	0.90	Not Detected
1,3-Butadiene	106-99-0	0.059	0.16	0.40	0.98
1,3-Dichlorobenzene	541-73-1	0.14	0.44	1.1	Not Detected
1,4-Dioxane	123-91-1	0.20	0.26	0.66	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.54	0.85	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.19	0.54	2.7	2.0 J
2-Hexanone	591-78-6	0.39	0.75	3.7	Not Detected
2-Propanol	67-63-0	0.17	0.45	2.2	5.5
3-Chloropropene	107-05-1	0.20	0.57	2.9	Not Detected
4-Ethyltoluene	622-96-8	0.19	0.36	0.90	0.26 J
4-Methyl-2-pentanone	108-10-1	0.14	0.30	0.75	Not Detected
Acetone	67-64-1	0.30	0.43	2.2	17
alpha-Chlorotoluene	100-44-7	0.20	0.38	0.95	Not Detected
Bromodichloromethane	75-27-4	0.19	0.49	1.2	Not Detected
Bromoform	75-25-2	0.35	0.76	1.9	Not Detected
Bromomethane	74-83-9	1.1	1.1	3.6	Not Detected
Carbon Disulfide	75-15-0	0.23	0.57	2.8	Not Detected
Chlorobenzene	108-90-7	0.21	0.34	0.84	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.18	0.33	0.83	Not Detected
Cumene	98-82-8	0.14	0.36	0.90	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-1		
Lab ID:	1609617AR2-09A	**Date/Time Analyzed:**	9/29/16 02:43 PM
Date/Time Collecte	9/21/16 09:55 AM	**Dilution Factor:**	1.83
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092910r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.11	0.25	0.63	0.59 J
Dibromochloromethane	124-48-1	0.26	0.62	1.6	Not Detected
Ethanol	64-17-5	0.37	0.37	1.7	1500 E
Freon 11	75-69-4	0.13	0.41	1.0	2.0
Freon 113	76-13-1	0.39	0.56	1.4	0.55 J
Heptane	142-82-5	0.17	0.30	0.75	1.6
Hexachlorobutadiene	87-68-3	0.49	2.0	9.8	Not Detected
Hexane	110-54-3	0.13	0.26	0.64	3.5
Methylene Chloride	75-09-2	0.096	0.25	1.3	0.93 J
Propylbenzene	103-65-1	0.16	0.36	0.90	Not Detected
Styrene	100-42-5	0.079	0.31	0.78	Not Detected
Tetrahydrofuran	109-99-9	0.46	0.54	2.7	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	75	530
trans-1,3-Dichloropropene	10061-02-6	0.18	0.33	0.83	Not Detected

E = Exceeds instrument calibration range.
J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	95

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-1		
Lab ID:	1609617AR2-09B	**Date/Time Analyzed:**	9/29/16 02:43 PM
Date/Time Collecte	9/21/16 09:55 AM	**Dilution Factor:**	1.83
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092910simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.050	0.20	0.019 J
1,1,2,2-Tetrachloroethane	79-34-5	0.0082	0.063	0.25	Not Detected
1,1,2-Trichloroethane	79-00-5	0.018	0.050	0.20	Not Detected
1,1-Dichloroethane	75-34-3	0.0053	0.037	0.15	Not Detected
1,1-Dichloroethene	75-35-4	0.0064	0.036	0.072	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0076	0.070	0.28	Not Detected
1,2-Dichloroethane	107-06-2	0.0081	0.037	0.15	0.043 J
1,4-Dichlorobenzene	106-46-7	0.012	0.055	0.22	0.032 J
Benzene	71-43-2	0.0043	0.029	0.29	0.93
Carbon Tetrachloride	56-23-5	0.015	0.058	0.23	0.48
Chloroethane	75-00-3	0.035	0.035	0.24	0.077 J
Chloroform	67-66-3	0.0057	0.045	0.18	0.16 J
Chloromethane	74-87-3	0.027	0.027	0.19	1.2
cis-1,2-Dichloroethene	156-59-2	0.0076	0.036	0.14	Not Detected
Ethyl Benzene	100-41-4	0.0072	0.040	0.16	0.10 J
Freon 114	76-14-2	0.017	0.064	0.26	0.12 J
Freon 12	75-71-8	0.014	0.045	0.18	2.6
m,p-Xylene	108-38-3	0.010	0.040	0.32	0.28 J
Methyl tert-butyl ether	1634-04-4	0.0034	0.033	0.66	Not Detected
Naphthalene	91-20-3	0.013	0.038	0.48	0.12 J
o-Xylene	95-47-6	0.0099	0.040	0.16	0.096 J
Tetrachloroethene	127-18-4	0.012	0.062	0.25	0.040 J
Toluene	108-88-3	0.0061	0.034	0.14	1.1
trans-1,2-Dichloroethene	156-60-5	0.0080	0.036	0.72	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	A-1		
Lab ID:	1609617AR2-09B	**Date/Time Analyzed:**	9/29/16 02:43 PM
Date/Time Collecte	9/21/16 09:55 AM	**Dilution Factor:**	1.83
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msd20.i / 20092910simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0077	0.049	0.20	0.026 J
Vinyl Chloride	75-01-4	0.0069	0.023	0.047	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	113
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	96

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-2ss		
Lab ID:	1609617AR2-11A	**Date/Time Analyzed:**	9/30/16 04:02 PM
Date/Time Collecte	9/22/16 09:12 AM	**Dilution Factor:**	6.09
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093015r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	3.5	6.3	17	20
1,1,2,2-Tetrachloroethane	79-34-5	1.2	7.9	21	Not Detected
1,1,2-Trichloroethane	79-00-5	3.4	6.3	17	Not Detected
1,1-Dichloroethane	75-34-3	2.1	4.7	12	Not Detected
1,1-Dichloroethene	75-35-4	5.6	5.6	12	Not Detected
1,2,4-Trichlorobenzene	120-82-1	4.6	22	90	Not Detected
1,2,4-Trimethylbenzene	95-63-6	1.5	5.7	15	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	2.3	8.9	23	Not Detected
1,2-Dichlorobenzene	95-50-1	3.1	7.0	18	Not Detected
1,2-Dichloroethane	107-06-2	2.6	4.7	12	Not Detected
1,2-Dichloropropane	78-87-5	1.6	5.3	14	Not Detected
1,3,5-Trimethylbenzene	108-67-8	1.3	5.7	15	Not Detected
1,3-Butadiene	106-99-0	1.6	2.6	6.7	Not Detected
1,3-Dichlorobenzene	541-73-1	2.7	7.0	18	Not Detected
1,4-Dichlorobenzene	106-46-7	1.9	7.0	18	Not Detected
1,4-Dioxane	123-91-1	2.9	11	44	Not Detected
2,2,4-Trimethylpentane	540-84-1	1.6	5.4	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	7.1	9.0	36	9.8 J
2-Hexanone	591-78-6	3.4	12	50	Not Detected
2-Propanol	67-63-0	2.5	7.5	30	Not Detected
3-Chloropropene	107-05-1	3.1	9.5	38	Not Detected
4-Ethyltoluene	622-96-8	2.5	5.7	15	Not Detected
4-Methyl-2-pentanone	108-10-1	2.3	4.7	12	14
Acetone	67-64-1	7.4	7.4	72	38 J

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-2ss		
Lab ID:	1609617AR2-11A	**Date/Time Analyzed:**	9/30/16 04:02 PM
Date/Time Collecte	9/22/16 09:12 AM	**Dilution Factor:**	6.09
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093015r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	1.5	6.0	16	Not Detected
Benzene	71-43-2	1.4	3.7	9.7	4.7 J
Bromodichloromethane	75-27-4	3.2	7.8	20	Not Detected
Bromoform	75-25-2	1.8	12	31	Not Detected
Bromomethane	74-83-9	3.7	12	120	Not Detected
Carbon Disulfide	75-15-0	3.2	9.5	38	Not Detected
Carbon Tetrachloride	56-23-5	2.5	7.3	19	Not Detected
Chlorobenzene	108-90-7	0.73	5.3	14	Not Detected
Chloroethane	75-00-3	4.7	8.0	32	Not Detected
Chloroform	67-66-3	2.1	5.6	15	Not Detected
Chloromethane	74-87-3	5.8	6.3	63	Not Detected
cis-1,2-Dichloroethene	156-59-2	1.9	4.6	12	Not Detected
cis-1,3-Dichloropropene	10061-01-5	1.3	5.2	14	Not Detected
Cumene	98-82-8	0.77	5.7	15	1.0 J
Cyclohexane	110-82-7	1.8	4.0	10	Not Detected
Dibromochloromethane	124-48-1	1.3	9.8	26	Not Detected
Ethanol	64-17-5	6.7	6.7	23	27
Ethyl Benzene	100-41-4	1.4	5.0	13	Not Detected
Freon 11	75-69-4	2.8	6.5	17	4500
Freon 113	76-13-1	3.0	8.9	23	Not Detected
Freon 114	76-14-2	3.6	8.1	21	Not Detected
Freon 12	75-71-8	1.6	5.7	15	38
Heptane	142-82-5	3.4	4.7	12	Not Detected
Hexachlorobutadiene	87-68-3	8.5	32	130	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-2ss		
Lab ID:	1609617AR2-11A	**Date/Time Analyzed:**	9/30/16 04:02 PM
Date/Time Collecte	9/22/16 09:12 AM	**Dilution Factor:**	6.09
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093015r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	1.8	4.1	11	Not Detected
m,p-Xylene	108-38-3	1.9	5.0	13	Not Detected
Methyl tert-butyl ether	1634-04-4	1.1	4.2	44	Not Detected
Methylene Chloride	75-09-2	5.2	10	100	Not Detected
Naphthalene	91-20-3	4.3	8.0	32	Not Detected
o-Xylene	95-47-6	2.4	5.0	13	Not Detected
Propylbenzene	103-65-1	1.4	5.7	15	Not Detected
Styrene	100-42-5	1.3	4.9	13	2.2 J
Tetrachloroethene	127-18-4	2.2	7.8	21	Not Detected
Tetrahydrofuran	109-99-9	0.91	3.4	9.0	Not Detected
Toluene	108-88-3	1.1	4.4	11	2.7 J
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	1200	Not Detected
trans-1,2-Dichloroethene	156-60-5	3.6	4.6	12	Not Detected
trans-1,3-Dichloropropene	10061-02-6	1.8	5.2	14	Not Detected
Trichloroethene	79-01-6	3.0	6.2	16	Not Detected
Vinyl Chloride	75-01-4	1.6	3.0	7.8	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	105
Toluene-d8	2037-26-5	70-130	102

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-1ss		
Lab ID:	1609617AR2-12A	**Date/Time Analyzed:**	9/30/16 04:33 PM
Date/Time Collecte	9/22/16 10:13 AM	**Dilution Factor:**	4.89
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093016r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	2.8	5.1	13	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.94	6.4	17	Not Detected
1,1,2-Trichloroethane	79-00-5	2.7	5.1	13	Not Detected
1,1-Dichloroethane	75-34-3	1.7	3.8	9.9	Not Detected
1,1-Dichloroethene	75-35-4	4.5	4.5	9.7	Not Detected
1,2,4-Trichlorobenzene	120-82-1	3.7	18	72	Not Detected
1,2,4-Trimethylbenzene	95-63-6	1.2	4.6	12	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	1.8	7.1	19	Not Detected
1,2-Dichlorobenzene	95-50-1	2.5	5.6	15	Not Detected
1,2-Dichloroethane	107-06-2	2.1	3.8	9.9	Not Detected
1,2-Dichloropropane	78-87-5	1.3	4.3	11	Not Detected
1,3,5-Trimethylbenzene	108-67-8	1.1	4.6	12	Not Detected
1,3-Butadiene	106-99-0	1.3	2.0	5.4	4.7 J
1,3-Dichlorobenzene	541-73-1	2.2	5.6	15	Not Detected
1,4-Dichlorobenzene	106-46-7	1.5	5.6	15	Not Detected
1,4-Dioxane	123-91-1	2.4	8.8	35	Not Detected
2,2,4-Trimethylpentane	540-84-1	1.3	4.3	11	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	5.7	7.2	29	Not Detected
2-Hexanone	591-78-6	2.7	10	40	Not Detected
2-Propanol	67-63-0	2.0	6.0	24	Not Detected
3-Chloropropene	107-05-1	2.5	7.6	31	Not Detected
4-Ethyltoluene	622-96-8	2.0	4.6	12	Not Detected
4-Methyl-2-pentanone	108-10-1	1.9	3.8	10	Not Detected
Acetone	67-64-1	5.9	5.9	58	27 J

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-1ss		
Lab ID:	1609617AR2-12A	**Date/Time Analyzed:**	9/30/16 04:33 PM
Date/Time Collecte	9/22/16 10:13 AM	**Dilution Factor:**	4.89
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093016r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	1.2	4.8	13	Not Detected
Benzene	71-43-2	1.1	3.0	7.8	5.0 J
Bromodichloromethane	75-27-4	2.5	6.2	16	Not Detected
Bromoform	75-25-2	1.4	9.6	25	Not Detected
Bromomethane	74-83-9	3.0	9.5	95	Not Detected
Carbon Disulfide	75-15-0	2.6	7.6	30	Not Detected
Carbon Tetrachloride	56-23-5	2.0	5.8	15	Not Detected
Chlorobenzene	108-90-7	0.59	4.3	11	Not Detected
Chloroethane	75-00-3	3.8	6.4	26	Not Detected
Chloroform	67-66-3	1.7	4.5	12	Not Detected
Chloromethane	74-87-3	4.6	5.0	50	Not Detected
cis-1,2-Dichloroethene	156-59-2	1.5	3.7	9.7	Not Detected
cis-1,3-Dichloropropene	10061-01-5	1.0	4.2	11	Not Detected
Cumene	98-82-8	0.62	4.6	12	Not Detected
Cyclohexane	110-82-7	1.4	3.2	8.4	Not Detected
Dibromochloromethane	124-48-1	1.0	7.9	21	Not Detected
Ethanol	64-17-5	5.4	5.4	18	53
Ethyl Benzene	100-41-4	1.1	4.0	11	2.1 J
Freon 11	75-69-4	2.3	5.2	14	3400
Freon 113	76-13-1	2.4	7.1	19	Not Detected
Freon 114	76-14-2	2.9	6.5	17	Not Detected
Freon 12	75-71-8	1.3	4.6	12	6.4 J
Heptane	142-82-5	2.7	3.8	10	Not Detected
Hexachlorobutadiene	87-68-3	6.8	26	100	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-1ss		
Lab ID:	1609617AR2-12A	**Date/Time Analyzed:**	9/30/16 04:33 PM
Date/Time Collecte	9/22/16 10:13 AM	**Dilution Factor:**	4.89
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093016r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	1.5	3.3	8.6	Not Detected
m,p-Xylene	108-38-3	1.5	4.0	11	9.0 J
Methyl tert-butyl ether	1634-04-4	0.88	3.3	35	Not Detected
Methylene Chloride	75-09-2	4.2	8.5	85	Not Detected
Naphthalene	91-20-3	3.4	6.4	26	Not Detected
o-Xylene	95-47-6	1.9	4.0	11	3.1 J
Propylbenzene	103-65-1	1.2	4.6	12	Not Detected
Styrene	100-42-5	1.1	4.0	10	1.1 J
Tetrachloroethene	127-18-4	1.8	6.3	16	23
Tetrahydrofuran	109-99-9	0.73	2.7	7.2	Not Detected
Toluene	108-88-3	0.85	3.5	9.2	12
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	1000	Not Detected
trans-1,2-Dichloroethene	156-60-5	2.9	3.7	9.7	Not Detected
trans-1,3-Dichloropropene	10061-02-6	1.4	4.2	11	Not Detected
Trichloroethene	79-01-6	2.4	5.0	13	Not Detected
Vinyl Chloride	75-01-4	1.3	2.4	6.2	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	97
4-Bromofluorobenzene	460-00-4	70-130	108
Toluene-d8	2037-26-5	70-130	102

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-3ss		
Lab ID:	1609617AR2-13A	**Date/Time Analyzed:**	9/30/16 07:19 PM
Date/Time Collecte	9/22/16 12:09 PM	**Dilution Factor:**	7.31
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093019r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	4.2	7.6	20	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	1.4	9.5	25	Not Detected
1,1,2-Trichloroethane	79-00-5	4.1	7.6	20	Not Detected
1,1-Dichloroethane	75-34-3	2.5	5.6	15	Not Detected
1,1-Dichloroethene	75-35-4	6.7	6.7	14	Not Detected
1,2,4-Trichlorobenzene	120-82-1	5.6	27	110	Not Detected
1,2,4-Trimethylbenzene	95-63-6	1.8	6.8	18	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	2.8	11	28	Not Detected
1,2-Dichlorobenzene	95-50-1	3.7	8.4	22	Not Detected
1,2-Dichloroethane	107-06-2	3.1	5.6	15	Not Detected
1,2-Dichloropropane	78-87-5	2.0	6.4	17	Not Detected
1,3,5-Trimethylbenzene	108-67-8	1.6	6.8	18	Not Detected
1,3-Butadiene	106-99-0	1.9	3.1	8.1	Not Detected
1,3-Dichlorobenzene	541-73-1	3.3	8.4	22	Not Detected
1,4-Dichlorobenzene	106-46-7	2.2	8.4	22	Not Detected
1,4-Dioxane	123-91-1	3.5	13	53	Not Detected
2,2,4-Trimethylpentane	540-84-1	2.0	6.5	17	38
2-Butanone (Methyl Ethyl Ketone)	78-93-3	8.6	11	43	26 J
2-Hexanone	591-78-6	4.0	15	60	Not Detected
2-Propanol	67-63-0	3.0	9.0	36	Not Detected
3-Chloropropene	107-05-1	3.8	11	46	Not Detected
4-Ethyltoluene	622-96-8	3.0	6.8	18	Not Detected
4-Methyl-2-pentanone	108-10-1	2.8	5.7	15	Not Detected
Acetone	67-64-1	8.8	8.8	87	45 J

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-3ss		
Lab ID:	1609617AR2-13A	**Date/Time Analyzed:**	9/30/16 07:19 PM
Date/Time Collecte	9/22/16 12:09 PM	**Dilution Factor:**	7.31
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093019r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	1.8	7.2	19	Not Detected
Benzene	71-43-2	1.7	4.4	12	Not Detected
Bromodichloromethane	75-27-4	3.8	9.3	24	Not Detected
Bromoform	75-25-2	2.2	14	38	Not Detected
Bromomethane	74-83-9	4.4	14	140	Not Detected
Carbon Disulfide	75-15-0	3.8	11	46	Not Detected
Carbon Tetrachloride	56-23-5	3.0	8.7	23	Not Detected
Chlorobenzene	108-90-7	0.88	6.4	17	Not Detected
Chloroethane	75-00-3	5.7	9.6	38	Not Detected
Chloroform	67-66-3	2.5	6.8	18	Not Detected
Chloromethane	74-87-3	6.9	7.5	75	Not Detected
cis-1,2-Dichloroethene	156-59-2	2.3	5.5	14	Not Detected
cis-1,3-Dichloropropene	10061-01-5	1.6	6.3	16	Not Detected
Cumene	98-82-8	0.92	6.8	18	Not Detected
Cyclohexane	110-82-7	2.2	4.8	12	Not Detected
Dibromochloromethane	124-48-1	1.5	12	31	Not Detected
Ethanol	64-17-5	8.1	8.1	28	54
Ethyl Benzene	100-41-4	1.6	6.0	16	2.6 J
Freon 11	75-69-4	3.4	7.8	20	5200
Freon 113	76-13-1	3.6	11	28	Not Detected
Freon 114	76-14-2	4.4	9.7	26	Not Detected
Freon 12	75-71-8	2.0	6.9	18	7.4 J
Heptane	142-82-5	4.0	5.7	15	Not Detected
Hexachlorobutadiene	87-68-3	10	39	160	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	A-3ss		
Lab ID:	1609617AR2-13A	**Date/Time Analyzed:**	9/30/16 07:19 PM
Date/Time Collecte	9/22/16 12:09 PM	**Dilution Factor:**	7.31
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msda.i / a093019r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	2.2	4.9	13	Not Detected
m,p-Xylene	108-38-3	2.3	6.0	16	7.1 J
Methyl tert-butyl ether	1634-04-4	1.3	5.0	53	Not Detected
Methylene Chloride	75-09-2	6.2	13	130	Not Detected
Naphthalene	91-20-3	5.2	9.6	38	Not Detected
o-Xylene	95-47-6	2.8	6.0	16	Not Detected
Propylbenzene	103-65-1	1.7	6.8	18	Not Detected
Styrene	100-42-5	1.6	5.9	16	Not Detected
Tetrachloroethene	127-18-4	2.7	9.4	25	3.8 J
Tetrahydrofuran	109-99-9	1.1	4.1	11	9.1 J
Toluene	108-88-3	1.3	5.2	14	25
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	1500	Not Detected
trans-1,2-Dichloroethene	156-60-5	4.3	5.5	14	Not Detected
trans-1,3-Dichloropropene	10061-02-6	2.1	6.3	16	Not Detected
Trichloroethene	79-01-6	3.7	7.5	20	Not Detected
Vinyl Chloride	75-01-4	1.9	3.6	9.3	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	105
Toluene-d8	2037-26-5	70-130	105

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14A	**Date/Time Analyzed:**	9/28/16 11:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092806r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.15	0.74	3.7	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.096	0.20	0.49	Not Detected
1,2-Dichlorobenzene	95-50-1	0.19	0.24	0.60	Not Detected
1,2-Dichloropropane	78-87-5	0.10	0.18	0.46	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.086	0.20	0.49	Not Detected
1,3-Butadiene	106-99-0	0.032	0.088	0.22	Not Detected
1,3-Dichlorobenzene	541-73-1	0.078	0.24	0.60	Not Detected
1,4-Dioxane	123-91-1	0.11	0.14	0.36	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.30	0.47	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.10	0.29	1.5	Not Detected
2-Hexanone	591-78-6	0.22	0.41	2.0	Not Detected
2-Propanol	67-63-0	0.094	0.24	1.2	Not Detected
3-Chloropropene	107-05-1	0.11	0.31	1.6	Not Detected
4-Ethyltoluene	622-96-8	0.10	0.20	0.49	Not Detected
4-Methyl-2-pentanone	108-10-1	0.075	0.16	0.41	Not Detected
Acetone	67-64-1	0.16	0.24	1.2	0.58 J
alpha-Chlorotoluene	100-44-7	0.11	0.21	0.52	Not Detected
Bromodichloromethane	75-27-4	0.10	0.27	0.67	Not Detected
Bromoform	75-25-2	0.19	0.41	1.0	Not Detected
Bromomethane	74-83-9	0.60	0.60	1.9	Not Detected
Carbon Disulfide	75-15-0	0.12	0.31	1.6	Not Detected
Chlorobenzene	108-90-7	0.12	0.18	0.46	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.096	0.18	0.45	Not Detected
Cumene	98-82-8	0.078	0.20	0.49	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14A	**Date/Time Analyzed:**	9/28/16 11:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092806r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.058	0.14	0.34	Not Detected
Dibromochloromethane	124-48-1	0.14	0.34	0.85	Not Detected
Ethanol	64-17-5	0.20	0.20	0.94	Not Detected
Freon 11	75-69-4	0.072	0.22	0.56	Not Detected
Freon 113	76-13-1	0.22	0.31	0.77	Not Detected
Heptane	142-82-5	0.093	0.16	0.41	Not Detected
Hexachlorobutadiene	87-68-3	0.27	1.1	5.3	Not Detected
Hexane	110-54-3	0.072	0.14	0.35	Not Detected
Methylene Chloride	75-09-2	0.052	0.14	0.69	0.10 J
Propylbenzene	103-65-1	0.089	0.20	0.49	Not Detected
Styrene	100-42-5	0.043	0.17	0.42	Not Detected
Tetrahydrofuran	109-99-9	0.25	0.29	1.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	41	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.097	0.18	0.45	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	89
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14B	**Date/Time Analyzed:**	9/28/16 11:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092806simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0046	0.027	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0045	0.034	0.14	0.023 J
1,1,2-Trichloroethane	79-00-5	0.010	0.027	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0029	0.020	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0035	0.020	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0041	0.038	0.15	Not Detected
1,2-Dichloroethane	107-06-2	0.0044	0.020	0.081	Not Detected
1,4-Dichlorobenzene	106-46-7	0.0067	0.030	0.12	0.028 J
Benzene	71-43-2	0.0023	0.016	0.16	0.012 J
Carbon Tetrachloride	56-23-5	0.0081	0.031	0.12	Not Detected
Chloroethane	75-00-3	0.019	0.019	0.13	Not Detected
Chloroform	67-66-3	0.0031	0.024	0.098	Not Detected
Chloromethane	74-87-3	0.015	0.015	0.10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.0042	0.020	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0040	0.022	0.087	Not Detected
Freon 114	76-14-2	0.0095	0.035	0.14	Not Detected
Freon 12	75-71-8	0.0076	0.025	0.099	Not Detected
m,p-Xylene	108-38-3	0.0057	0.022	0.17	0.032 J
Methyl tert-butyl ether	1634-04-4	0.0019	0.018	0.36	Not Detected
Naphthalene	91-20-3	0.0072	0.021	0.26	0.046 J
o-Xylene	95-47-6	0.0054	0.022	0.087	Not Detected
Tetrachloroethene	127-18-4	0.0066	0.034	0.14	Not Detected
Toluene	108-88-3	0.0033	0.019	0.075	0.020 J
trans-1,2-Dichloroethene	156-60-5	0.0044	0.020	0.40	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14B	**Date/Time Analyzed:**	9/28/16 11:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092806simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0042	0.027	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0038	0.013	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	115
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14C	**Date/Time Analyzed:**	9/29/16 12:34 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092907r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.15	0.74	3.7	0.21 J
1,2,4-Trimethylbenzene	95-63-6	0.096	0.20	0.49	Not Detected
1,2-Dichlorobenzene	95-50-1	0.19	0.24	0.60	Not Detected
1,2-Dichloropropane	78-87-5	0.10	0.18	0.46	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.086	0.20	0.49	Not Detected
1,3-Butadiene	106-99-0	0.032	0.088	0.22	Not Detected
1,3-Dichlorobenzene	541-73-1	0.078	0.24	0.60	Not Detected
1,4-Dioxane	123-91-1	0.11	0.14	0.36	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.30	0.47	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.10	0.29	1.5	Not Detected
2-Hexanone	591-78-6	0.22	0.41	2.0	Not Detected
2-Propanol	67-63-0	0.094	0.24	1.2	Not Detected
3-Chloropropene	107-05-1	0.11	0.31	1.6	Not Detected
4-Ethyltoluene	622-96-8	0.10	0.20	0.49	Not Detected
4-Methyl-2-pentanone	108-10-1	0.075	0.16	0.41	Not Detected
Acetone	67-64-1	0.16	0.24	1.2	Not Detected
alpha-Chlorotoluene	100-44-7	0.11	0.21	0.52	Not Detected
Bromodichloromethane	75-27-4	0.10	0.27	0.67	Not Detected
Bromoform	75-25-2	0.19	0.41	1.0	Not Detected
Bromomethane	74-83-9	0.60	0.60	1.9	Not Detected
Carbon Disulfide	75-15-0	0.12	0.31	1.6	Not Detected
Chlorobenzene	108-90-7	0.12	0.18	0.46	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.096	0.18	0.45	Not Detected
Cumene	98-82-8	0.078	0.20	0.49	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14C	**Date/Time Analyzed:**	9/29/16 12:34 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092907r1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.058	0.14	0.34	Not Detected
Dibromochloromethane	124-48-1	0.14	0.34	0.85	Not Detected
Ethanol	64-17-5	0.20	0.20	0.94	Not Detected
Freon 11	75-69-4	0.072	0.22	0.56	Not Detected
Freon 113	76-13-1	0.22	0.31	0.77	Not Detected
Heptane	142-82-5	0.093	0.16	0.41	Not Detected
Hexachlorobutadiene	87-68-3	0.27	1.1	5.3	Not Detected
Hexane	110-54-3	0.072	0.14	0.35	Not Detected
Methylene Chloride	75-09-2	0.052	0.14	0.69	0.18 J
Propylbenzene	103-65-1	0.089	0.20	0.49	Not Detected
Styrene	100-42-5	0.043	0.17	0.42	Not Detected
Tetrahydrofuran	109-99-9	0.25	0.29	1.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	41	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.097	0.18	0.45	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	112
4-Bromofluorobenzene	460-00-4	70-130	88
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14D	**Date/Time Analyzed:**	9/29/16 12:34 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092907simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0046	0.027	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0045	0.034	0.14	0.029 J
1,1,2-Trichloroethane	79-00-5	0.010	0.027	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0029	0.020	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0035	0.020	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0041	0.038	0.15	0.019 J
1,2-Dichloroethane	107-06-2	0.0044	0.020	0.081	Not Detected
1,4-Dichlorobenzene	106-46-7	0.0067	0.030	0.12	0.036 J
Benzene	71-43-2	0.0023	0.016	0.16	0.0094 J
Carbon Tetrachloride	56-23-5	0.0081	0.031	0.12	Not Detected
Chloroethane	75-00-3	0.019	0.019	0.13	Not Detected
Chloroform	67-66-3	0.0031	0.024	0.098	Not Detected
Chloromethane	74-87-3	0.015	0.015	0.10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.0042	0.020	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0040	0.022	0.087	Not Detected
Freon 114	76-14-2	0.0095	0.035	0.14	Not Detected
Freon 12	75-71-8	0.0076	0.025	0.099	Not Detected
m,p-Xylene	108-38-3	0.0057	0.022	0.17	Not Detected
Methyl tert-butyl ether	1634-04-4	0.0019	0.018	0.36	Not Detected
Naphthalene	91-20-3	0.0072	0.021	0.26	0.021 J
o-Xylene	95-47-6	0.0054	0.022	0.087	Not Detected
Tetrachloroethene	127-18-4	0.0066	0.034	0.14	Not Detected
Toluene	108-88-3	0.0033	0.019	0.075	0.0074 J
trans-1,2-Dichloroethene	156-60-5	0.0044	0.020	0.40	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14D	**Date/Time Analyzed:**	9/29/16 12:34 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092907simr1

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.0042	0.027	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0038	0.013	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	96

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14E	**Date/Time Analyzed:**	9/30/16 11:28 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093006a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.58	1.0	2.7	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.19	1.3	3.4	Not Detected
1,1,2-Trichloroethane	79-00-5	0.56	1.0	2.7	Not Detected
1,1-Dichloroethane	75-34-3	0.35	0.77	2.0	Not Detected
1,1-Dichloroethene	75-35-4	0.92	0.92	2.0	Not Detected
1,2,4-Trichlorobenzene	120-82-1	0.76	3.7	15	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.25	0.93	2.4	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.38	1.5	3.8	Not Detected
1,2-Dichlorobenzene	95-50-1	0.50	1.1	3.0	Not Detected
1,2-Dichloroethane	107-06-2	0.42	0.77	2.0	Not Detected
1,2-Dichloropropane	78-87-5	0.27	0.88	2.3	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.22	0.93	2.4	Not Detected
1,3-Butadiene	106-99-0	0.27	0.42	1.1	Not Detected
1,3-Dichlorobenzene	541-73-1	0.45	1.1	3.0	Not Detected
1,4-Dichlorobenzene	106-46-7	0.31	1.1	3.0	Not Detected
1,4-Dioxane	123-91-1	0.48	1.8	7.2	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.27	0.89	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.2	1.5	5.9	Not Detected
2-Hexanone	591-78-6	0.55	2.0	8.2	Not Detected
2-Propanol	67-63-0	0.42	1.2	4.9	Not Detected
3-Chloropropene	107-05-1	0.52	1.6	6.3	Not Detected
4-Ethyltoluene	622-96-8	0.41	0.93	2.4	Not Detected
4-Methyl-2-pentanone	108-10-1	0.38	0.78	2.0	Not Detected
Acetone	67-64-1	1.2	1.2	12	2.2 J

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14E	**Date/Time Analyzed:**	9/30/16 11:28 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093006a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	0.24	0.98	2.6	Not Detected
Benzene	71-43-2	0.23	0.61	1.6	Not Detected
Bromodichloromethane	75-27-4	0.52	1.3	3.4	Not Detected
Bromoform	75-25-2	0.30	2.0	5.2	Not Detected
Bromomethane	74-83-9	0.60	1.9	19	Not Detected
Carbon Disulfide	75-15-0	0.52	1.6	6.2	Not Detected
Carbon Tetrachloride	56-23-5	0.41	1.2	3.1	Not Detected
Chlorobenzene	108-90-7	0.12	0.87	2.3	Not Detected
Chloroethane	75-00-3	0.78	1.3	5.3	Not Detected
Chloroform	67-66-3	0.34	0.93	2.4	Not Detected
Chloromethane	74-87-3	0.94	1.0	10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.32	0.75	2.0	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.21	0.86	2.3	Not Detected
Cumene	98-82-8	0.13	0.93	2.4	Not Detected
Cyclohexane	110-82-7	0.30	0.65	1.7	Not Detected
Dibromochloromethane	124-48-1	0.21	1.6	4.2	Not Detected
Ethanol	64-17-5	1.1	1.1	3.8	1.2 J
Ethyl Benzene	100-41-4	0.23	0.82	2.2	Not Detected
Freon 11	75-69-4	0.46	1.1	2.8	Not Detected
Freon 113	76-13-1	0.50	1.4	3.8	Not Detected
Freon 114	76-14-2	0.60	1.3	3.5	Not Detected
Freon 12	75-71-8	0.27	0.94	2.5	Not Detected
Heptane	142-82-5	0.55	0.78	2.0	Not Detected
Hexachlorobutadiene	87-68-3	1.4	5.3	21	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	Lab Blank		
Lab ID:	1609617AR2-14E	**Date/Time Analyzed:**	9/30/16 11:28 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093006a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	0.30	0.67	1.8	Not Detected
m,p-Xylene	108-38-3	0.32	0.82	2.2	Not Detected
Methyl tert-butyl ether	1634-04-4	0.18	0.68	7.2	Not Detected
Methylene Chloride	75-09-2	0.85	1.7	17	Not Detected
Naphthalene	91-20-3	0.70	1.3	5.2	Not Detected
o-Xylene	95-47-6	0.39	0.82	2.2	Not Detected
Propylbenzene	103-65-1	0.24	0.93	2.4	Not Detected
Styrene	100-42-5	0.22	0.81	2.1	Not Detected
Tetrachloroethene	127-18-4	0.37	1.3	3.4	Not Detected
Tetrahydrofuran	109-99-9	0.15	0.56	1.5	Not Detected
Toluene	108-88-3	0.17	0.72	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	200	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.59	0.75	2.0	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.29	0.86	2.3	Not Detected
Trichloroethene	79-01-6	0.50	1.0	2.7	Not Detected
Vinyl Chloride	75-01-4	0.26	0.48	1.3	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15A	**Date/Time Analyzed:**	9/28/16 07:30 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092802

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	89
1,2,4-Trimethylbenzene	95-63-6	111
1,2-Dichlorobenzene	95-50-1	104
1,2-Dichloropropane	78-87-5	110
1,3,5-Trimethylbenzene	108-67-8	117
1,3-Butadiene	106-99-0	98
1,3-Dichlorobenzene	541-73-1	104
1,4-Dioxane	123-91-1	105
2,2,4-Trimethylpentane	540-84-1	97
2-Butanone (Methyl Ethyl Ketone)	78-93-3	99
2-Hexanone	591-78-6	111
2-Propanol	67-63-0	90
3-Chloropropene	107-05-1	99
4-Ethyltoluene	622-96-8	98
4-Methyl-2-pentanone	108-10-1	122
Acetone	67-64-1	94
alpha-Chlorotoluene	100-44-7	119
Bromodichloromethane	75-27-4	125
Bromoform	75-25-2	127
Bromomethane	74-83-9	113
Carbon Disulfide	75-15-0	103
Chlorobenzene	108-90-7	109
cis-1,3-Dichloropropene	10061-01-5	110
Cumene	98-82-8	117

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15A	**Date/Time Analyzed:**	9/28/16 07:30 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092802

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	94
Dibromochloromethane	124-48-1	129
Ethanol	64-17-5	92
Freon 11	75-69-4	100
Freon 113	76-13-1	93
Heptane	142-82-5	118
Hexachlorobutadiene	87-68-3	87
Hexane	110-54-3	95
Methylene Chloride	75-09-2	92
Propylbenzene	103-65-1	109
Styrene	100-42-5	117
Tetrahydrofuran	109-99-9	102
TPH ref. to Gasoline (MW=100)	9999-9999-038	100
trans-1,3-Dichloropropene	10061-02-6	120

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	110
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	106

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15B	**Date/Time Analyzed:**	9/28/16 07:30 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092802sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	102
1,1,2,2-Tetrachloroethane	79-34-5	123
1,1,2-Trichloroethane	79-00-5	112
1,1-Dichloroethane	75-34-3	99
1,1-Dichloroethene	75-35-4	84
1,2-Dibromoethane (EDB)	106-93-4	116
1,2-Dichloroethane	107-06-2	120
1,4-Dichlorobenzene	106-46-7	90
Benzene	71-43-2	94
Carbon Tetrachloride	56-23-5	115
Chloroethane	75-00-3	99
Chloroform	67-66-3	101
Chloromethane	74-87-3	92
cis-1,2-Dichloroethene	156-59-2	91
Ethyl Benzene	100-41-4	114
Freon 114	76-14-2	94
Freon 12	75-71-8	104
m,p-Xylene	108-38-3	111
Methyl tert-butyl ether	1634-04-4	93
Naphthalene	91-20-3	68
o-Xylene	95-47-6	109
Tetrachloroethene	127-18-4	100
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	92

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15B	**Date/Time Analyzed:**	9/28/16 07:30 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092802sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	99
Vinyl Chloride	75-01-4	93

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	107

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15C	**Date/Time Analyzed:**	9/29/16 07:46 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092902

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	87
1,2,4-Trimethylbenzene	95-63-6	113
1,2-Dichlorobenzene	95-50-1	105
1,2-Dichloropropane	78-87-5	120
1,3,5-Trimethylbenzene	108-67-8	118
1,3-Butadiene	106-99-0	101
1,3-Dichlorobenzene	541-73-1	104
1,4-Dioxane	123-91-1	111
2,2,4-Trimethylpentane	540-84-1	101
2-Butanone (Methyl Ethyl Ketone)	78-93-3	101
2-Hexanone	591-78-6	113
2-Propanol	67-63-0	92
3-Chloropropene	107-05-1	99
4-Ethyltoluene	622-96-8	102
4-Methyl-2-pentanone	108-10-1	130
Acetone	67-64-1	96
alpha-Chlorotoluene	100-44-7	120
Bromodichloromethane	75-27-4	129
Bromoform	75-25-2	131 Q
Bromomethane	74-83-9	118
Carbon Disulfide	75-15-0	106
Chlorobenzene	108-90-7	111
cis-1,3-Dichloropropene	10061-01-5	116
Cumene	98-82-8	118

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15C	**Date/Time Analyzed:**	9/29/16 07:46 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092902

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	96
Dibromochloromethane	124-48-1	132 Q
Ethanol	64-17-5	96
Freon 11	75-69-4	103
Freon 113	76-13-1	93
Heptane	142-82-5	127
Hexachlorobutadiene	87-68-3	86
Hexane	110-54-3	96
Methylene Chloride	75-09-2	94
Propylbenzene	103-65-1	111
Styrene	100-42-5	119
Tetrahydrofuran	109-99-9	103
TPH ref. to Gasoline (MW=100)	9999-9999-038	100
trans-1,3-Dichloropropene	10061-02-6	123

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	108

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15D	**Date/Time Analyzed:**	9/29/16 07:46 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092902sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	105
1,1,2,2-Tetrachloroethane	79-34-5	127
1,1,2-Trichloroethane	79-00-5	117
1,1-Dichloroethane	75-34-3	101
1,1-Dichloroethene	75-35-4	85
1,2-Dibromoethane (EDB)	106-93-4	121
1,2-Dichloroethane	107-06-2	126
1,4-Dichlorobenzene	106-46-7	92
Benzene	71-43-2	98
Carbon Tetrachloride	56-23-5	117
Chloroethane	75-00-3	102
Chloroform	67-66-3	102
Chloromethane	74-87-3	95
cis-1,2-Dichloroethene	156-59-2	92
Ethyl Benzene	100-41-4	118
Freon 114	76-14-2	96
Freon 12	75-71-8	106
m,p-Xylene	108-38-3	115
Methyl tert-butyl ether	1634-04-4	94
Naphthalene	91-20-3	67
o-Xylene	95-47-6	112
Tetrachloroethene	127-18-4	103
Toluene	108-88-3	112
trans-1,2-Dichloroethene	156-60-5	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15D	**Date/Time Analyzed:**	9/29/16 07:46 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092902sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	103
Vinyl Chloride	75-01-4	95

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	106

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15E	**Date/Time Analyzed:**	9/30/16 09:35 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093002

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	88
1,1,2,2-Tetrachloroethane	79-34-5	87
1,1,2-Trichloroethane	79-00-5	83
1,1-Dichloroethane	75-34-3	91
1,1-Dichloroethene	75-35-4	93
1,2,4-Trichlorobenzene	120-82-1	96
1,2,4-Trimethylbenzene	95-63-6	90
1,2-Dibromoethane (EDB)	106-93-4	84
1,2-Dichlorobenzene	95-50-1	90
1,2-Dichloroethane	107-06-2	86
1,2-Dichloropropane	78-87-5	88
1,3,5-Trimethylbenzene	108-67-8	92
1,3-Butadiene	106-99-0	86
1,3-Dichlorobenzene	541-73-1	87
1,4-Dichlorobenzene	106-46-7	91
1,4-Dioxane	123-91-1	90
2,2,4-Trimethylpentane	540-84-1	94
2-Butanone (Methyl Ethyl Ketone)	78-93-3	94
2-Hexanone	591-78-6	90
2-Propanol	67-63-0	92
3-Chloropropene	107-05-1	95
4-Ethyltoluene	622-96-8	91
4-Methyl-2-pentanone	108-10-1	87
Acetone	67-64-1	87

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15E	**Date/Time Analyzed:**	9/30/16 09:35 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093002

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	93
Benzene	71-43-2	89
Bromodichloromethane	75-27-4	90
Bromoform	75-25-2	90
Bromomethane	74-83-9	91
Carbon Disulfide	75-15-0	90
Carbon Tetrachloride	56-23-5	91
Chlorobenzene	108-90-7	86
Chloroethane	75-00-3	90
Chloroform	67-66-3	93
Chloromethane	74-87-3	90
cis-1,2-Dichloroethene	156-59-2	94
cis-1,3-Dichloropropene	10061-01-5	90
Cumene	98-82-8	89
Cyclohexane	110-82-7	90
Dibromochloromethane	124-48-1	89
Ethanol	64-17-5	91
Ethyl Benzene	100-41-4	88
Freon 11	75-69-4	90
Freon 113	76-13-1	91
Freon 114	76-14-2	92
Freon 12	75-71-8	90
Heptane	142-82-5	92
Hexachlorobutadiene	87-68-3	97

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	CCV		
Lab ID:	1609617AR2-15E	**Date/Time Analyzed:**	9/30/16 09:35 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093002

Compound	CAS#	%Recovery
Hexane	110-54-3	90
m,p-Xylene	108-38-3	86
Methyl tert-butyl ether	1634-04-4	90
Methylene Chloride	75-09-2	91
Naphthalene	91-20-3	87
o-Xylene	95-47-6	91
Propylbenzene	103-65-1	90
Styrene	100-42-5	93
Tetrachloroethene	127-18-4	84
Tetrahydrofuran	109-99-9	88
Toluene	108-88-3	92
TPH ref. to Gasoline (MW=100)	9999-9999-038	100
trans-1,2-Dichloroethene	156-60-5	89
trans-1,3-Dichloropropene	10061-02-6	90
Trichloroethene	79-01-6	88
Vinyl Chloride	75-01-4	87

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16A	**Date/Time Analyzed:**	9/28/16 08:18 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092803

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	76
1,2,4-Trimethylbenzene	95-63-6	82
1,2-Dichlorobenzene	95-50-1	80
1,2-Dichloropropane	78-87-5	92
1,3,5-Trimethylbenzene	108-67-8	87
1,3-Butadiene	106-99-0	81
1,3-Dichlorobenzene	541-73-1	80
1,4-Dioxane	123-91-1	83
2,2,4-Trimethylpentane	540-84-1	83
2-Butanone (Methyl Ethyl Ketone)	78-93-3	78
2-Hexanone	591-78-6	84
2-Propanol	67-63-0	78
3-Chloropropene	107-05-1	76
4-Ethyltoluene	622-96-8	74
4-Methyl-2-pentanone	108-10-1	99
Acetone	67-64-1	83
alpha-Chlorotoluene	100-44-7	101
Bromodichloromethane	75-27-4	103
Bromoform	75-25-2	106
Bromomethane	74-83-9	100
Carbon Disulfide	75-15-0	75
Chlorobenzene	108-90-7	87
cis-1,3-Dichloropropene	10061-01-5	83
Cumene	98-82-8	90

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16A	**Date/Time Analyzed:**	9/28/16 08:18 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092803

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	78
Dibromochloromethane	124-48-1	103
Ethanol	64-17-5	85
Freon 11	75-69-4	87
Freon 113	76-13-1	76
Heptane	142-82-5	94
Hexachlorobutadiene	87-68-3	74
Hexane	110-54-3	79
Methylene Chloride	75-09-2	79
Propylbenzene	103-65-1	84
Styrene	100-42-5	87
Tetrahydrofuran	109-99-9	81
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked
trans-1,3-Dichloropropene	10061-02-6	95

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	111
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	107

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16AA	**Date/Time Analyzed:**	9/28/16 09:04 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092804

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	77
1,2,4-Trimethylbenzene	95-63-6	82
1,2-Dichlorobenzene	95-50-1	80
1,2-Dichloropropane	78-87-5	92
1,3,5-Trimethylbenzene	108-67-8	86
1,3-Butadiene	106-99-0	82
1,3-Dichlorobenzene	541-73-1	81
1,4-Dioxane	123-91-1	81
2,2,4-Trimethylpentane	540-84-1	83
2-Butanone (Methyl Ethyl Ketone)	78-93-3	80
2-Hexanone	591-78-6	83
2-Propanol	67-63-0	79
3-Chloropropene	107-05-1	80
4-Ethyltoluene	622-96-8	75
4-Methyl-2-pentanone	108-10-1	100
Acetone	67-64-1	84
alpha-Chlorotoluene	100-44-7	100
Bromodichloromethane	75-27-4	102
Bromoform	75-25-2	104
Bromomethane	74-83-9	96
Carbon Disulfide	75-15-0	77
Chlorobenzene	108-90-7	84
cis-1,3-Dichloropropene	10061-01-5	83
Cumene	98-82-8	88

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16AA	**Date/Time Analyzed:**	9/28/16 09:04 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092804

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	79
Dibromochloromethane	124-48-1	101
Ethanol	64-17-5	85
Freon 11	75-69-4	88
Freon 113	76-13-1	76
Heptane	142-82-5	95
Hexachlorobutadiene	87-68-3	75
Hexane	110-54-3	80
Methylene Chloride	75-09-2	79
Propylbenzene	103-65-1	85
Styrene	100-42-5	85
Tetrahydrofuran	109-99-9	82
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked
trans-1,3-Dichloropropene	10061-02-6	94

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	105
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	107

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16B	**Date/Time Analyzed:**	9/28/16 08:18 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092803sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	86
1,1,2,2-Tetrachloroethane	79-34-5	99
1,1,2-Trichloroethane	79-00-5	92
1,1-Dichloroethane	75-34-3	81
1,1-Dichloroethene	75-35-4	72
1,2-Dibromoethane (EDB)	106-93-4	95
1,2-Dichloroethane	107-06-2	96
1,4-Dichlorobenzene	106-46-7	71
Benzene	71-43-2	78
Carbon Tetrachloride	56-23-5	108
Chloroethane	75-00-3	86
Chloroform	67-66-3	85
Chloromethane	74-87-3	80
cis-1,2-Dichloroethene	156-59-2	73
Ethyl Benzene	100-41-4	91
Freon 114	76-14-2	86
Freon 12	75-71-8	93
m,p-Xylene	108-38-3	89
Methyl tert-butyl ether	1634-04-4	74
Naphthalene	91-20-3	56 Q
o-Xylene	95-47-6	88
Tetrachloroethene	127-18-4	83
Toluene	108-88-3	89
trans-1,2-Dichloroethene	156-60-5	80

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16B	**Date/Time Analyzed:**	9/28/16 08:18 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092803sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	82
Vinyl Chloride	75-01-4	83

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	103
Toluene-d8	2037-26-5	70-130	107

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16BB	**Date/Time Analyzed:**	9/28/16 09:04 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092804sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	86
1,1,2,2-Tetrachloroethane	79-34-5	99
1,1,2-Trichloroethane	79-00-5	91
1,1-Dichloroethane	75-34-3	80
1,1-Dichloroethene	75-35-4	72
1,2-Dibromoethane (EDB)	106-93-4	94
1,2-Dichloroethane	107-06-2	94
1,4-Dichlorobenzene	106-46-7	71
Benzene	71-43-2	76
Carbon Tetrachloride	56-23-5	107
Chloroethane	75-00-3	85
Chloroform	67-66-3	84
Chloromethane	74-87-3	78
cis-1,2-Dichloroethene	156-59-2	73
Ethyl Benzene	100-41-4	89
Freon 114	76-14-2	83
Freon 12	75-71-8	90
m,p-Xylene	108-38-3	88
Methyl tert-butyl ether	1634-04-4	75
Naphthalene	91-20-3	58 Q
o-Xylene	95-47-6	87
Tetrachloroethene	127-18-4	81
Toluene	108-88-3	87
trans-1,2-Dichloroethene	156-60-5	79

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16BB	**Date/Time Analyzed:**	9/28/16 09:04 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092804sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	80
Vinyl Chloride	75-01-4	81

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	106

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCS		
Lab ID:	1609617AR2-16C	**Date/Time Analyzed:**	9/29/16 09:34 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092904

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	81
1,2,4-Trimethylbenzene	95-63-6	78
1,2-Dichlorobenzene	95-50-1	81
1,2-Dichloropropane	78-87-5	87
1,3,5-Trimethylbenzene	108-67-8	85
1,3-Butadiene	106-99-0	78
1,3-Dichlorobenzene	541-73-1	80
1,4-Dioxane	123-91-1	77
2,2,4-Trimethylpentane	540-84-1	78
2-Butanone (Methyl Ethyl Ketone)	78-93-3	75
2-Hexanone	591-78-6	80
2-Propanol	67-63-0	78
3-Chloropropene	107-05-1	72
4-Ethyltoluene	622-96-8	75
4-Methyl-2-pentanone	108-10-1	92
Acetone	67-64-1	93
alpha-Chlorotoluene	100-44-7	99
Bromodichloromethane	75-27-4	97
Bromoform	75-25-2	99
Bromomethane	74-83-9	99
Carbon Disulfide	75-15-0	73
Chlorobenzene	108-90-7	82
cis-1,3-Dichloropropene	10061-01-5	76
Cumene	98-82-8	88

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16C	**Date/Time Analyzed:**	9/29/16 09:34 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092904

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	75
Dibromochloromethane	124-48-1	98
Ethanol	64-17-5	77
Freon 11	75-69-4	83
Freon 113	76-13-1	73
Heptane	142-82-5	88
Hexachlorobutadiene	87-68-3	81
Hexane	110-54-3	76
Methylene Chloride	75-09-2	77
Propylbenzene	103-65-1	85
Styrene	100-42-5	82
Tetrahydrofuran	109-99-9	76
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked
trans-1,3-Dichloropropene	10061-02-6	89

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	104

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16CC	**Date/Time Analyzed:**	9/29/16 10:43 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092905

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	72
1,2,4-Trimethylbenzene	95-63-6	76
1,2-Dichlorobenzene	95-50-1	77
1,2-Dichloropropane	78-87-5	85
1,3,5-Trimethylbenzene	108-67-8	82
1,3-Butadiene	106-99-0	77
1,3-Dichlorobenzene	541-73-1	77
1,4-Dioxane	123-91-1	75
2,2,4-Trimethylpentane	540-84-1	78
2-Butanone (Methyl Ethyl Ketone)	78-93-3	74
2-Hexanone	591-78-6	79
2-Propanol	67-63-0	74
3-Chloropropene	107-05-1	73
4-Ethyltoluene	622-96-8	74
4-Methyl-2-pentanone	108-10-1	89
Acetone	67-64-1	94
alpha-Chlorotoluene	100-44-7	95
Bromodichloromethane	75-27-4	96
Bromoform	75-25-2	98
Bromomethane	74-83-9	96
Carbon Disulfide	75-15-0	72
Chlorobenzene	108-90-7	79
cis-1,3-Dichloropropene	10061-01-5	76
Cumene	98-82-8	87

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16CC	**Date/Time Analyzed:**	9/29/16 10:43 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092905

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	73
Dibromochloromethane	124-48-1	95
Ethanol	64-17-5	79
Freon 11	75-69-4	83
Freon 113	76-13-1	73
Heptane	142-82-5	85
Hexachlorobutadiene	87-68-3	74
Hexane	110-54-3	76
Methylene Chloride	75-09-2	76
Propylbenzene	103-65-1	84
Styrene	100-42-5	81
Tetrahydrofuran	109-99-9	78
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked
trans-1,3-Dichloropropene	10061-02-6	89

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	104
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	104

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16D	**Date/Time Analyzed:**	9/29/16 09:34 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092904sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	82
1,1,2,2-Tetrachloroethane	79-34-5	95
1,1,2-Trichloroethane	79-00-5	87
1,1-Dichloroethane	75-34-3	77
1,1-Dichloroethene	75-35-4	68 Q
1,2-Dibromoethane (EDB)	106-93-4	90
1,2-Dichloroethane	107-06-2	92
1,4-Dichlorobenzene	106-46-7	71
Benzene	71-43-2	74
Carbon Tetrachloride	56-23-5	102
Chloroethane	75-00-3	83
Chloroform	67-66-3	80
Chloromethane	74-87-3	76
cis-1,2-Dichloroethene	156-59-2	70
Ethyl Benzene	100-41-4	87
Freon 114	76-14-2	80
Freon 12	75-71-8	87
m,p-Xylene	108-38-3	86
Methyl tert-butyl ether	1634-04-4	71
Naphthalene	91-20-3	60
o-Xylene	95-47-6	84
Tetrachloroethene	127-18-4	77
Toluene	108-88-3	84
trans-1,2-Dichloroethene	156-60-5	76

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16D	**Date/Time Analyzed:**	9/29/16 09:34 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092904sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	77
Vinyl Chloride	75-01-4	78

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	106

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCSD		
Lab ID:	1609617AR2-16DD	**Date/Time Analyzed:**	9/29/16 10:43 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092905sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	80
1,1,2,2-Tetrachloroethane	79-34-5	93
1,1,2-Trichloroethane	79-00-5	85
1,1-Dichloroethane	75-34-3	76
1,1-Dichloroethene	75-35-4	68 Q
1,2-Dibromoethane (EDB)	106-93-4	88
1,2-Dichloroethane	107-06-2	89
1,4-Dichlorobenzene	106-46-7	68 Q
Benzene	71-43-2	72
Carbon Tetrachloride	56-23-5	100
Chloroethane	75-00-3	82
Chloroform	67-66-3	79
Chloromethane	74-87-3	75
cis-1,2-Dichloroethene	156-59-2	69 Q
Ethyl Benzene	100-41-4	85
Freon 114	76-14-2	79
Freon 12	75-71-8	86
m,p-Xylene	108-38-3	84
Methyl tert-butyl ether	1634-04-4	70
Naphthalene	91-20-3	51 Q
o-Xylene	95-47-6	83
Tetrachloroethene	127-18-4	76
Toluene	108-88-3	82
trans-1,2-Dichloroethene	156-60-5	75

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16DD	**Date/Time Analyzed:**	9/29/16 10:43 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd20.i / 20092905sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	76
Vinyl Chloride	75-01-4	78

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	105
Toluene-d8	2037-26-5	70-130	106

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16E	**Date/Time Analyzed:**	9/30/16 10:01 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093003

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	86
1,1,2,2-Tetrachloroethane	79-34-5	83
1,1,2-Trichloroethane	79-00-5	81
1,1-Dichloroethane	75-34-3	88
1,1-Dichloroethene	75-35-4	92
1,2,4-Trichlorobenzene	120-82-1	91
1,2,4-Trimethylbenzene	95-63-6	88
1,2-Dibromoethane (EDB)	106-93-4	81
1,2-Dichlorobenzene	95-50-1	87
1,2-Dichloroethane	107-06-2	86
1,2-Dichloropropane	78-87-5	88
1,3,5-Trimethylbenzene	108-67-8	88
1,3-Butadiene	106-99-0	82
1,3-Dichlorobenzene	541-73-1	84
1,4-Dichlorobenzene	106-46-7	86
1,4-Dioxane	123-91-1	88
2,2,4-Trimethylpentane	540-84-1	92
2-Butanone (Methyl Ethyl Ketone)	78-93-3	94
2-Hexanone	591-78-6	88
2-Propanol	67-63-0	91
3-Chloropropene	107-05-1	84
4-Ethyltoluene	622-96-8	87
4-Methyl-2-pentanone	108-10-1	87
Acetone	67-64-1	82

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16E	**Date/Time Analyzed:**	9/30/16 10:01 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093003

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	92
Benzene	71-43-2	88
Bromodichloromethane	75-27-4	91
Bromoform	75-25-2	88
Bromomethane	74-83-9	92
Carbon Disulfide	75-15-0	78
Carbon Tetrachloride	56-23-5	89
Chlorobenzene	108-90-7	82
Chloroethane	75-00-3	91
Chloroform	67-66-3	88
Chloromethane	74-87-3	88
cis-1,2-Dichloroethene	156-59-2	89
cis-1,3-Dichloropropene	10061-01-5	84
Cumene	98-82-8	84
Cyclohexane	110-82-7	86
Dibromochloromethane	124-48-1	85
Ethanol	64-17-5	94
Ethyl Benzene	100-41-4	86
Freon 11	75-69-4	89
Freon 113	76-13-1	87
Freon 114	76-14-2	93
Freon 12	75-71-8	90
Heptane	142-82-5	93
Hexachlorobutadiene	87-68-3	90

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	LCS		
Lab ID:	1609617AR2-16E	**Date/Time Analyzed:**	9/30/16 10:01 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093003

Compound	CAS#	%Recovery
Hexane	110-54-3	89
m,p-Xylene	108-38-3	81
Methyl tert-butyl ether	1634-04-4	88
Methylene Chloride	75-09-2	85
Naphthalene	91-20-3	102
o-Xylene	95-47-6	86
Propylbenzene	103-65-1	87
Styrene	100-42-5	88
Tetrachloroethene	127-18-4	81
Tetrahydrofuran	109-99-9	83
Toluene	108-88-3	91
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked
trans-1,2-Dichloroethene	156-60-5	88
trans-1,3-Dichloropropene	10061-02-6	83
Trichloroethene	79-01-6	88
Vinyl Chloride	75-01-4	87

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	95
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	102

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16EE	**Date/Time Analyzed:**	9/30/16 10:27 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093004

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	84
1,1,2,2-Tetrachloroethane	79-34-5	85
1,1,2-Trichloroethane	79-00-5	81
1,1-Dichloroethane	75-34-3	86
1,1-Dichloroethene	75-35-4	92
1,2,4-Trichlorobenzene	120-82-1	104
1,2,4-Trimethylbenzene	95-63-6	89
1,2-Dibromoethane (EDB)	106-93-4	81
1,2-Dichlorobenzene	95-50-1	88
1,2-Dichloroethane	107-06-2	84
1,2-Dichloropropane	78-87-5	87
1,3,5-Trimethylbenzene	108-67-8	93
1,3-Butadiene	106-99-0	80
1,3-Dichlorobenzene	541-73-1	85
1,4-Dichlorobenzene	106-46-7	88
1,4-Dioxane	123-91-1	87
2,2,4-Trimethylpentane	540-84-1	90
2-Butanone (Methyl Ethyl Ketone)	78-93-3	91
2-Hexanone	591-78-6	88
2-Propanol	67-63-0	91
3-Chloropropene	107-05-1	85
4-Ethyltoluene	622-96-8	84
4-Methyl-2-pentanone	108-10-1	86
Acetone	67-64-1	83

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16EE	**Date/Time Analyzed:**	9/30/16 10:27 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093004

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	94
Benzene	71-43-2	86
Bromodichloromethane	75-27-4	90
Bromoform	75-25-2	88
Bromomethane	74-83-9	90
Carbon Disulfide	75-15-0	76
Carbon Tetrachloride	56-23-5	87
Chlorobenzene	108-90-7	82
Chloroethane	75-00-3	89
Chloroform	67-66-3	88
Chloromethane	74-87-3	87
cis-1,2-Dichloroethene	156-59-2	87
cis-1,3-Dichloropropene	10061-01-5	84
Cumene	98-82-8	86
Cyclohexane	110-82-7	86
Dibromochloromethane	124-48-1	85
Ethanol	64-17-5	89
Ethyl Benzene	100-41-4	85
Freon 11	75-69-4	88
Freon 113	76-13-1	85
Freon 114	76-14-2	92
Freon 12	75-71-8	87
Heptane	142-82-5	90
Hexachlorobutadiene	87-68-3	101

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN
PLAID PANTRY #112

Client ID:	LCSD		
Lab ID:	1609617AR2-16EE	**Date/Time Analyzed:**	9/30/16 10:27 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a093004

Compound	CAS#	%Recovery
Hexane	110-54-3	87
m,p-Xylene	108-38-3	82
Methyl tert-butyl ether	1634-04-4	86
Methylene Chloride	75-09-2	84
Naphthalene	91-20-3	117
o-Xylene	95-47-6	89
Propylbenzene	103-65-1	88
Styrene	100-42-5	90
Tetrachloroethene	127-18-4	81
Tetrahydrofuran	109-99-9	84
Toluene	108-88-3	90
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked
trans-1,2-Dichloroethene	156-60-5	87
trans-1,3-Dichloropropene	10061-02-6	84
Trichloroethene	79-01-6	87
Vinyl Chloride	75-01-4	85

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	96
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	102

* % Recovery is calculated using unrounded analytical results.

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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 City PORTLAND State OR Zip 97227
Phone 503.847.2740 Fax —

Project Info:
P.O. # —
Project # 1179-01
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	A-4	34391	9-21-2016	0934		29	6		
03A	A-5	00426		0937		28	6		
03A	A-7	31137		0940		30	6		
04A	A-6	6L1290		0941		26	6		
05A	A-8	00309		0942		30	10		
06A	A-9	31138		0943		29	6		
07A	A-2	33805		0944		30	10		
08A	A-3	108629		0950		28	6		
09A	A-1	34354		0955		27	6		
~~10A~~ Analyze/Hold	A-10	14007		1007		28	6		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Daniele Peters	9-22-16 1610	Thea Y ~~EATL~~	9/26/16 13:30
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
CONFIRM ANALYSES WITH CHRIS RHEA

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		N/A	good	Yes No (None)	1609617

Form 1293 rev.11

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180 BLUE RAVINE ROAD, SUITE B
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(916) 985-1000 FAX (916) 985-1020

Project Manager CHRIS RHEA

Collected by: (Print and Sign) DANIELE PETERS Daniele Peters

Company EES 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 # 1179-01
Project Name PLAID #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)
11A	A-2SS	34380	9-22-2016	0912		29	8		
12A	A-1SS	32107	↓	1013		30	8		
13A	A-3SS	35252	↓	1209		29	8		

Relinquished by: (signature) Date/Time: Daniele Peters 9-22-16 1610
Received by: (signature) Date/Time: [illegible] EATL 9/26/16 13:30

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

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

Notes:
SEE CHRIS RHEA FOR ANALYSES

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
Fed EX		N/A	good	Yes No (None)	16090617

Form 1293 rev.11

Attachment C

GENERAL BUILDING SURVEY

Prepared By:_____ Date/Time Prepared:_____

Project: 1179-01 PLAID #112 Location/Building:_____

A. OCCUPANT: Interviewed: Y / N (circle)

Last Name:_____ First Name:_____

Address: 1002 W. FOURTH PLAIN BLVD, VANCOUVER, WA

County: CLARK

Home/Business Phone:_____ Alternate Phone:_____

Number of Occupants/persons at this location:_____ Age of Occupants:_____

B. OWNER OR LANDLORD: (Check if same as occupant__): Interviewed: Y / N

Last Name: PIACENTINI First Name: LOUISE

Address: 2001 SIXTH AVE STE 2300, SEATTLE, WA

County: KING

Home/Business Phone:_____ Alternate Phone:_____

C. BUILDING CHARACTERISTICS:

1. Type of Building: (Circle appropriate response):

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

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

Bungalow	Ranch	Colonial	2-Family
Four Square	Raised Ranch	Split Level	3-Family

Cape Cod | English Cottage | Contemporary | Mobile Home

Duplex | Apartment House | Townhouse/Condos

Modular | Log Home | Other:_____

3. If multiple units, how many? 2

4. General Building construction (circle): wood frame concrete stone brick steel

5. If the property is commercial, type?

   Business Name and Type: PLAID PANTRY + DOMINOS

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

6. Other characteristics:

   Number of floors: 1 Building age: 34 yrs (BUILT IN 1982)

7. Is the building insulated Y/N? How air tight? Tight Average Not Tight

D. BASEMENT & CONSTRUCTION CHARACTERISTICS (Circle all that apply):

1. Does property have a:
   basement crawlspace slab-on-grade

2. What is the condition of the basement or slab-on-grade?
   Good (few or no small cracks) Fair (several small cracks, no large cracks)
   Poor (large cracks present) Unknown

3. Basement floor/concrete slab/crawlspace:
   Unsealed Sealed Dirt Covered with:_____

4. Basement floor/concrete slab/crawlspace:
   Wet Damp Dry Moldy

5. The basement is:

   Finished Unfinished Partially finished

6. Basement/lowest level estimated depth below exterior ground surface:_____(feet)

7. Does the basement/crawlspace have air vents leading out of the structure? Y / N

   If yes, are these vents always open, always closed, or seasonally opened and closed?

   _____

8. Does the floor/basement/crawlspace have floor drains leading out of the room? (Y / N)

   If yes, list each drain:_____

   _____

   _____

9. Where do utilities enter the building? (e.g. basement, concrete slab, walls, floors)

   List each one:_____

   _____

   _____

10. Are there liners/vapor barriers in the basement/crawlspace or within the floor slab? Y / N

    If yes, describe: _____

11. Foundation walls: poured block stone other:_____

12. Foundation walls: unsealed sealed sealed with:_____

13. Are Sumps present in building/basement? Y / N / Unknown

14. If sumps are present, describe each including information on contents/typical use:

    _____

    _____

15. Are the sumps concrete lined or open to the sub-surface (i.e. are soils exposed?)

    _____

16. Are elevator shafts present? Y / N How many?_____

    If so, describe each: _____

    _____

17. Has the original structure of the building been altered by construction? For example, have half basements or spaces under the building been constructed? If so, describe:

    _____

E. HEATING, VENTING & AIR CONDITIONING (Circle all that apply)

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

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

Other: _____

2. The primary type of fuel for heating is:

Natural gas	Fuel oil	Kerosene
Electric	Propane	Solar
Wood	Coal	Other:_____

3. Hot water heated by:

Natural gas	Fuel oil	Other:_____

4. Boiler/furnace located in:

Basement	Outdoors	Main Floor	Other:_____

5. Air conditioning:

(Heat Pump)	Central air	Window units	Open windows	None

6. Are there air distribution ducts present? Y / N

7. Does the site have a back-up generator, or use a generator for any purposes? _____

   If so, how is the generator(s) fueled? Gas Diesel Electric Other_____

8. Has the building been weatherized with any of the following (circle any that apply)?

   Insulation Storm Windows Energy Efficient Windows Other_____

9. If building is insulated, what type of insulation is used in the building (Circle all that apply)?

Fiberglass	Mineral wool	Polyurethane foam	Polystyrene
Wood fiber	Insulating concrete forms		

   Other:_____

F. OCCUPANCY

List occupants or, if a large commercial facility, general occupant roles (e.g. warehouse, office, etc.)

Age (if under 18)	Sex	Occupation	Number of years working or living here	Number of hours spent in building per day

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

Level	General use of each floor (e.g., family-room, bedroom, workshop, storage)
Basement	
1st Floor	STORE WITH MAINTENANCE ROOM
2nd Floor	-
3rd Floor	-
4th Floor	-

G. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

2. Does the garage have a separate heating unit? Y / N N/A

3. Are petroleum-powered equipment stored in the garage (e.g. lawnmower, ATV, car) Y / N

   Please specify type of equipment:

4. Are there any parts cleaners used at the site (manufacturing, garage, hobby area)? Y / N

If yes, what is done with the spent solvent/solvent cans? _____

_____

5. Is there a drum storage area on the property? (Y) / N

If yes, what type of chemicals are stored in drums? IDW, STORMWATER FROM FILL CAPS OF USTS (PETROLEUM USTS)

_____

6. Does the building have a fireplace? Y / (N) Where? _____

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

8. Does the building have a refuse burning area? Y / (N) Where? _____

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

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

11. Is there smoking in the building? Y / (N) How Frequently? _____

12. How often are cleaning products used? Daily Weekly Monthly

13. Are cosmetic products used at property? Y / N

When & Type? _____

14. Does the building/business apply paint or chemicals? Y / N

If yes, what products are applied? _____

_____

15. Do media blasting practices occur at the property? Y / (N)

If yes, what type of materials are being sandblasted? _____

_____

16. Has painting/staining been done to the building in the last six months? Y / N

Where & When? _____

17. Is there new carpet, drapes or other textiles? Y / N

    Where & When?_____

18. Are air fresheners used? Y / N

    When & Type?_____

19. Is there a kitchen exhaust fan? Y / N

    If yes, where vented?_____

20. Is there a bathroom exhaust fan? Y/N

    If yes, where vented?_____

21. Is there a clothes dryer? Y / N

    If yes, is it (circle one)? Electric Natural Gas Propane Vented outside? Y / N

22. Are there odors in the building? Y / N

    If yes please describe: _____

    _____

23. Has the building undergone any recent renovations/upgrades (e.g. building addition, re-roofing, remodeling, floor refinishing)? Y / N

    If yes, please describe:_____

    _____

24. Are there any pressed wood products in the building (e.g. hardwood, plywood, wall paneling, particleboard or fiberboard)? Y / N

    If yes, please describe their location:_____

    _____

25. Has the Building been treated with any insecticides, pesticides, fungicides, and/or biocides (mold treatment)? Y / N

    If so, what chemicals are used and how often are they applied?_____

    _____

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

(e.g., chemical mfg., laboratory, auto mechanic/auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what type of solvents are used?_____

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

27. Do any of the building occupants regularly use or work at a dry-cleaning service?

(check appropriate response)

_____No

_____Yes, use dry-cleaning regularly (weekly)

_____Yes, use dry-cleaning infrequently (monthly or less)

_____Yes, work at a dry-cleaning service

28. Is there a radon mitigation system for the building/structure? Y / N

Date of Installation:_____. Is the system active or passive? Active/Passive

H. ENVIRONMENTAL CONCERNS (AIR, WATER, & SEWAGE)

1. Does the property have a private well? Y / (N)

If Yes, is it in use? When was it last used?_____

_____

2. What is the well construction? (circle one) Drilled Dug Driven

Notes:_____

3. Does the property owner have a well log for the well? Y / N

4. Source of potable water (circle): (City water supply) Private Well Other:_____
5. Source of irrigation water (circle): City water supply Private Well Other:_____

6. Sewage Disposal:

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

7. Does the building/business have an NPDES Permit? Y / N

   If yes, what chemicals and volumes are being discharged? _____

8. Are there any dry wells on the property? Y / N

9. Are there any french drains (water diversion trench) present at the site? Y / N

10. Are there underground storage tanks (USTs) on the property? (Y) / N How Many 3

    If so, describe each one (size, contents, location, etc.) 2 12,000-GALLON TANKS AND 1 10,000-GALLON TANK. ONLY USED TO STORE GASOLINE

11. Does the building/business have an air permit with the Southwest Washington Clean Air Agency (SWCAA)? (Y) / N

    If yes, what chemicals are being discharged into the atmosphere? GASOLINE VAPORS AND RELATED CONSTITUENTS

Note: *The information and questions on this form were compiled from the following states and agencies: Washington, California, Delaware, Maine, Massachusetts, New Jersey, New York, Oregon, Vermont, and ASTM International.*

PETROLEUM VAPOR INTRUSION CONCEPTUAL SITE MODEL CHECKLIST

The information included in this checklist may be useful for developing the site-specific conceptual migration model and in planning the soil gas sampling. You can use this checklist to compile information for each site.

Site ID/Name: 1179-01 PLAID #112

Address/Location: 1002 W. FOURTH PLAIN BLVD

Site Owner/Operator: LOUISE PIACENTINI

Released Product(s) & Volume(s): GASOLINE (+ PCE OFF SITE)

Release Date: UNKNOWN

Type of Petroleum Site

(Identification of indicator petroleum hydrocarbon compounds and release sources)

☑ Gasoline and/or diesel UST locations

☐ Commercial and home heating oil locations

☐ Refineries

☐ Bulk storage facilities

☐ Pipelines and transportation

☐ Oil exploration and production sites

☐ Former manufactured gas plants

☐ Creosote (wood treating) facilities

☐ Dry cleaners using petroleum solvents (such as Stoddard solvent)

☐ Other, describe:

(Required for screening evaluation)

Source(s)

☑ Identify affected media

- LNAPL
- Dissolved
- Sorbed
- Vapor

☑ Define magnitude and extent of affected media
20' x 30' x 15' DEEP ; CONC. RANGING UP TO 10000 mg/kg IN 2015 (G)
20000 IN 2012

☑ Indicators for screening (state-specific)
Benz = 10.7 SG. µg/m3 BTEX, N, B UP TO 14 mg/kg IN 2015
MTCA = 0.03 mg/kg Benz (A)
18.2 (B)

☐ Indicators/COPCs for investigation (state-specific)
PCE?

☐ Nonpetroleum VOCs

MTCA B = 10.7 µg/m3 SG

☑ Indications of an ongoing release? NO

☑ Describe source stability (stable, increasing, decreasing)

MTCA B = 0.321 µg/m3 Benz Indoor

☑ Have petroleum odors been reported or documented in buildings? NO (BUT ACTIVE GAS STATION)

Migration

☑ Define lateral separation distance between source and receptor.
~55'

☐ Define the thickness of unaffected ("biologically active" or "relatively clean") soil between the source(s) and the building foundation.
7.2% O_2

☐ Describe biodegradation indicators, including O_2, CO_2, methane, total organic carbon (TOC) content, moisture, temperature, and pH at depths specified.

☑ Describe vadose zone lithology. BROWN SILT + SILTY SAND TO 13.5 → 20' bgs
SANDS + GRAVELS TO 40' bgs

Buildings (Receptors)

☑ Identify and denote on site plan existing and potential future buildings.

☑ Identify the occupancy and use of the buildings, for example residential, commercial, or industrial (may need to interview occupants to obtain this information).

☑ Describe the construction of the building including materials (such as wood frame or block), openings (windows, doors), and height (one-story, two-story, multiple-story); identify any elevator shafts present in the building (if applicable).

☐ Describe the foundation construction including:

- Type (basement, crawl space, slab on grade)
- Floor construction (such as concrete or dirt)
- Depth below grade/ground surface
- Describe foundation drainage or penetrations if they exist (French drains, sumps, cracks, or other)

☐ Describe the HVAC system in the building including:

- Furnace/air conditioning type (forced air, radiant)
- Furnace/air conditioning location (basement, crawl space, utility closet, attic, roof)
- Source of return air (inside air, outside air, combination)
- System design considerations relating to indoor air pressure (positive pressure is often the case for commercial buildings).

NONE ☒ Describe subslab ventilation systems or moisture barriers present on existing buildings, or identify building and fire code requirements for subslab ventilation systems (such as for methane) or moisture barriers below foundations.

☒ Identify occupancy and use of off-site buildings affected or potentially affect by site sources. Assess the need for public communication plan. NONE.

Engineered Preferential Pathways—Utilities, Process Piping, Sumps

☑ Locate and denote on site plan all underground utilities near the soil or groundwater impacts; note utilities that connect affected areas to occupied buildings including depths and entry points. SEE FIGURES

☑ Locate and denote on site plan all underground process piping near the soil or groundwater impacts. SEE FIGURES

☒ Locate and denote on site plan building basement dewatering sumps. N/A (NO BASEMENT)

Source Area

MASS? ☑ Identify and denote on site plan the sources and their locations contributing to vapor-phase contaminants related to the subsurface VI pathway (LNAPL, dissolved plume, contaminated soil, soil gas). Estimate mass of ~~LNAPL~~, ~~dissolved plume size~~, affected soil volume. 20' X 30' x 15' DEEP

☒ Describe and denote on site plan the presence, distribution, and composition (gasoline and ethanol content, diesel, and fuel oil) of LNAPL at the site. NO LNAPL

☑ Identify and denote on site plan any presence of comingled chlorinated hydrocarbon plume. SOURCE UNKNOWN BUT AREAS OF KNOWN CONTAMINATION SHOWN ON FIGURES.

☑ Identify the vapor-phase contaminants (based on volatility and toxicity) that are to be considered for the subsurface VI pathway (benzene). BTEX + N (+ PCE)

☑ Describe the status and results for the delineation of contamination in environmental media, specifically soil and groundwater, between the source area and the potential affected buildings.
SEE FIGURES

☑ Describe the environmental media (soil, groundwater, both) containing contaminants. + VAPOR

☑ Describe the depth to source area (LNAPL, dissolved plume, unsaturated soil, soil gas).
~15' SOIL ~5' SOIL GAS

☑ Describe the potential migration characteristics (stable, increasing, decreasing) for the distribution of contaminants. ~SVE

☑ Describe contaminant transport mechanisms (diffusion in vadose zone or through capillary zone, advective flows, movement through preferential pathways). UTILITY LINES

☑ Describe remedial actions completed to date.
..SVE..

Geology/Hydrogeology

☑ Describe regional geology (especially important in fractured rock or karst areas).
SILTY SANDS AND SANDY SILTS → SANDS + GRAVELS HOLOCENTE UPPER PLEISTOCENE - AGED ALLUVIAL DEPOSITS (MEDIUM TO FINE SAND + SILT)

☑ Review all boring logs, monitoring well construction, and soil sampling data to understand the following: depth of vadose zone, capillary fringe and the phreatic (saturated) zone
→ 780' bgs

- ☒ Note any seasonal water table fluctuations and seasonal flow direction changes (hydraulic gradient).
- ☑ Note the depth interval between the vapor source and the ground surface. 3'-15'
- ☑ Note the presence and thickness of a biologically active layer to support biodegradation. BIO.
- ☑ Note the presence of any perched aquifers. → NEAR SVE-5
- ☑ Note where the water table intersect well screen interval or note the presence of submerged screen. SVE-5 ABOVE SCREEN

Biological Indicators

☑ Describe biological indicators. SEE TABLES

- ☑ O_2 concentrations to support aerobic PHC biodegradation, note presence of large building footprint that may limit atmospheric oxygen transport beneath center area of building 7.2-4%
- ☑ CO_2 concentrations UP TO 17.9%. (AVG AROUND 3%)
- ☑ Methane concentrations (generation under anaerobic biodegradation of PHC because of high concentrations at plume interior or presence of LNAPL, or because of high-ethanol gasoline), potential for concentrations in explosive range (especially in confined areas), increased O_2 demand because of aerobic biodegradation of methane UP TO ~2%
- ☒ Organic soil (such as peat) with low O_2 that limits potential for aerobic PHC degradation

☑ Describe distinct strata and characteristics (soil type, temperature, moisture content, porosity, bulk density, organic content). SEE TABLES

☑ Identify the depth to groundwater. 780'

☒ Describe groundwater characteristics (seasonal fluctuation, temperature, hydraulic gradient: vertical and horizontal; natural versus induced, flow directions). NA

Site Characteristics & Considerations

☒ Estimate and denote on site plan the lateral extent of and the distance from edge of groundwater plume to building.

☒ Identify groundwater beneficial use (potable or nonpotable).

☑ Identify nearby potential contaminant sources. PCE

☑ Estimate vertical separation distance from vapor source to building foundation and denote on subsurface cross-sections. ~~TPH~~ VOCs 3'-15'

☑ Describe the surface cover between the vapor source area and the potentially affected building. ASPHALT

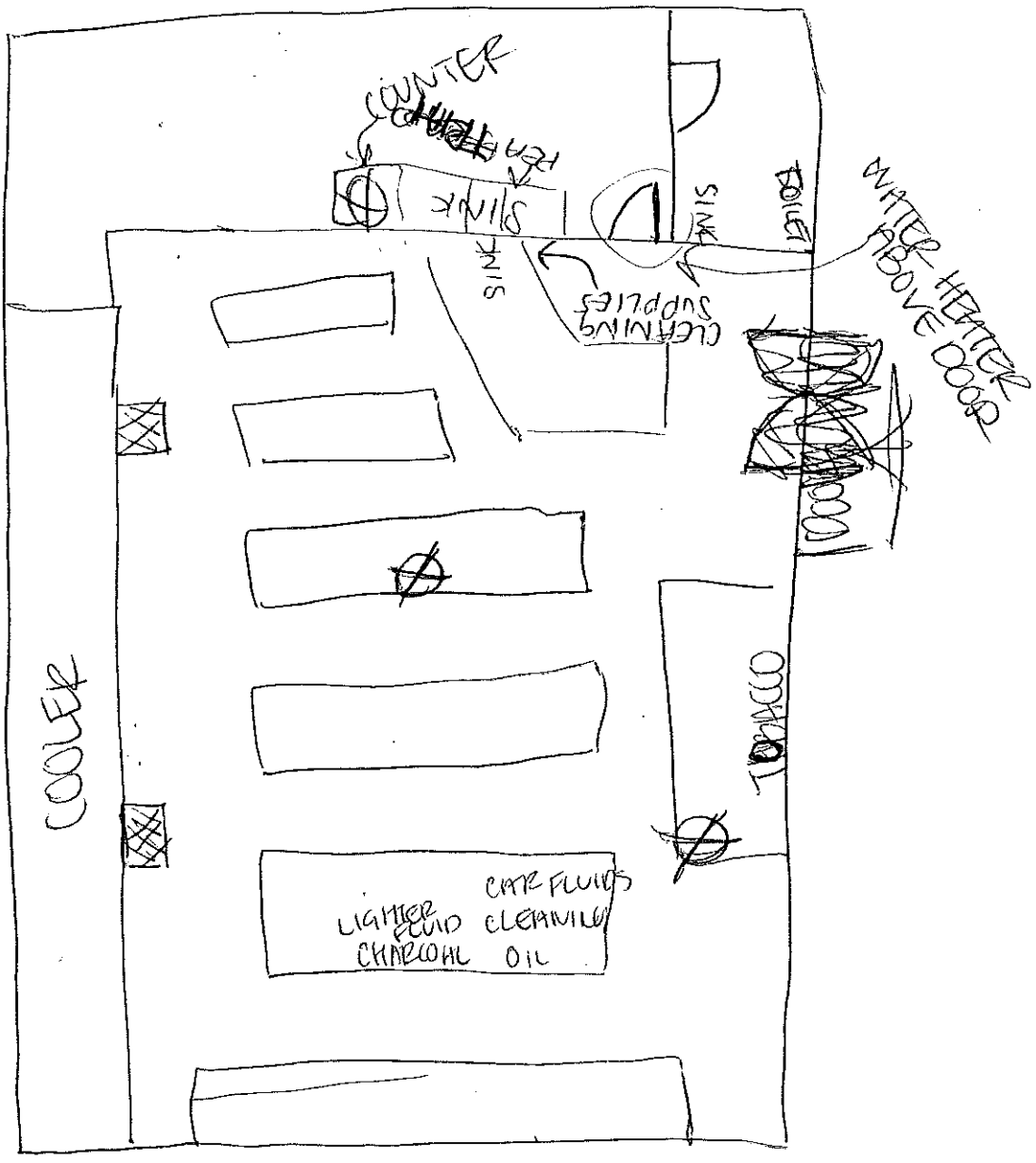
☑ Identify presence of continuous pavement that may result in unimpeded migration of vapor in the subgrade layer to building foundation. ALL CONTINUOUS PAVEMENT

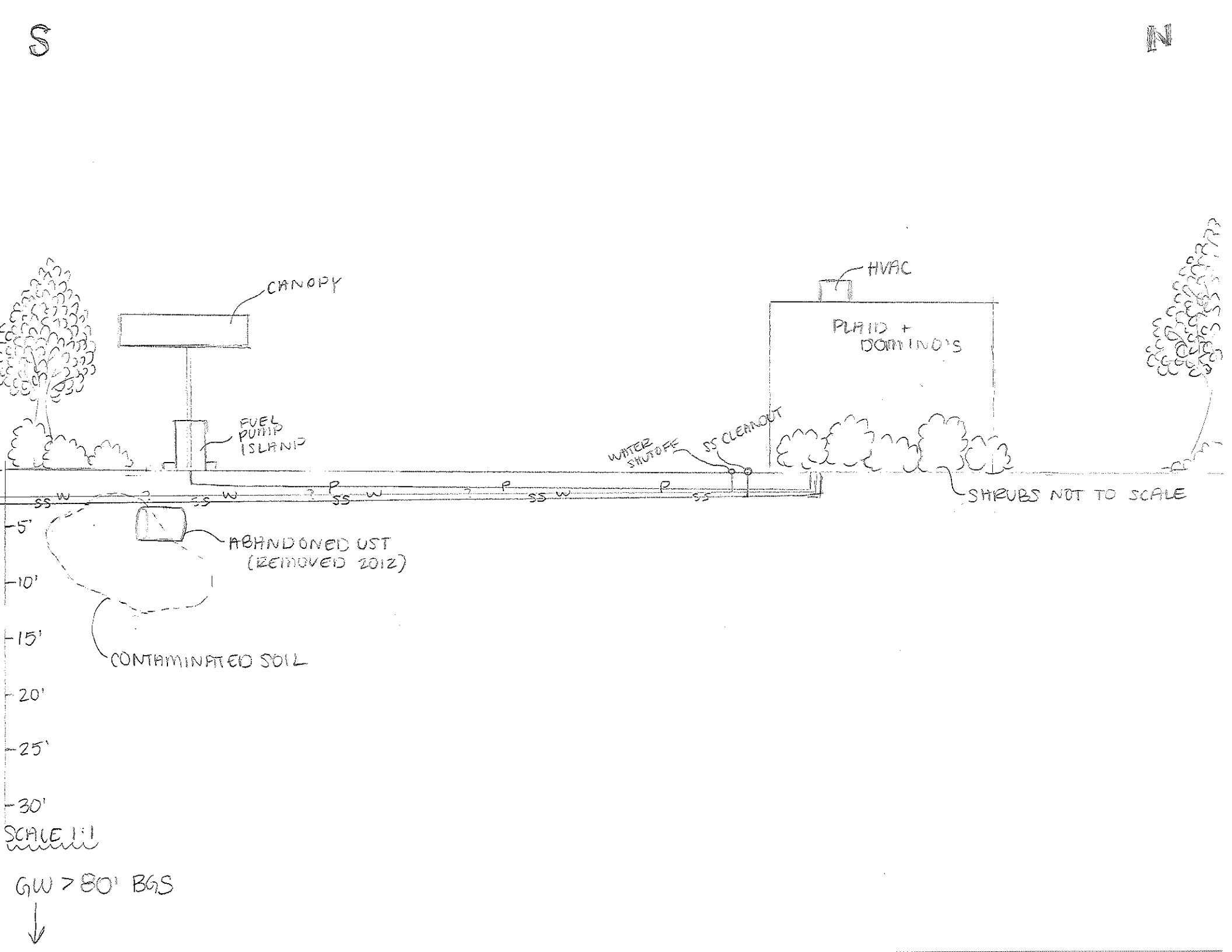
☒ Describe surface water/precipitation infiltration in unpaved areas, serving as a pathway for transport of dissolved O_2 to vadose zone for aerobic PHC degradation.

☑ Describe background contributions and concentrations of volatile contaminants to indoor air (both ambient/outdoor and indoor sources). ACTIVE GAS STATION

☑ Describe data quality for VI assessment (sample collection methods, laboratory detection levels, sufficiency of sample numbers and events, and representative sample locations). SEE WORKPLAN

☑ Describe rationale for determination of VI exposure pathways and any exclusion.
UTILITY CONDUITS SEEM MOST LIKELY CAUSE OF POTENTIAL VAPOR INTRUSION


COUNTER
SINK
SINK
SINK
BOILER
WATER HEATER ABOVE DOOR
CLEANING SUPPLIES
COOLER
TOBACCO
LIGHTER FLUID
CHARCOAL
CAR FLUIDS
CLEANING OIL


S
N
CANOPY
HVAC
PLAID +
DOMINO'S
FUEL
PUMP
ISLAND
WATER
SHUTOFF
SS CLEANOUT
SHRUBS NOT TO SCALE
SS W ? SS W ? P SS W ? P SS W P SS
ABANDONED UST
(REMOVED 2012)
CONTAMINATED SOIL
5'
10'
15'
20'
25'
30'
SCALE 1:1
GW > 80' BGS

Attachment D

TABLE D-1
Weather Station Data
Plaid Pantry No. 112
Vancouver, Washington

Date	Time	Outside Temperature (°F)	Outside Humidity (%)	Dew Point (°F)	Wind Speed (mph)	Wind Direction	High Wind Speed (mph)	High Wind Driection	Barometric Pressure (inches)
9/21/2016	8:25	51.9	84	47.2	1	WNW	2	WNW	30.073
	8:30	51.7	85	47.3	0	NW	2	NW	30.070
	8:35	51.8	86	47.7	0	-	0	-	30.070
	8:40	52.2	86	48.1	1	WNW	4	NW	30.070
	8:45	52.5	85	48.1	2	NE	4	NW	30.067
	8:50	52.4	84	47.7	2	WNW	5	NW	29.955
	8:55	52.1	84	47.4	3	NW	5	NW	29.954
	9:00	51.8	85	47.4	2	NW	5	NW	29.955
	9:05	51.9	85	47.5	2	NW	4	WNW	29.954
	9:10	52.0	85	47.6	2	NW	4	W	29.952
	9:15	52.3	85	47.9	2	NW	5	NW	29.952
	9:20	52.7	85	48.3	3	NW	7	NW	29.949
	9:25	53.0	84	48.3	2	NW	7	NW	29.949
	9:30	53.4	83	48.4	3	NW	5	NNW	29.948
	9:35	53.8	83	48.8	2	NW	4	NW	29.947
	9:40	54.3	81	48.6	2	NW	7	WNW	29.950
	9:45	54.7	80	48.6	3	NW	6	WNW	29.949
	9:50	55.0	79	48.6	3	NW	6	NNW	29.947
	9:55	55.4	79	49.0	2	NW	6	NW	29.946
	10:00	55.7	77	48.6	3	NW	6	NW	29.947
	10:05	56.2	77	49.1	2	NW	5	WNW	29.948
	10:10	56.6	77	49.5	2	NW	5	WNW	29.947
	10:15	56.9	77	49.8	2	NW	5	NW	29.942
	10:20	57.3	76	49.8	2	NW	4	WNW	29.943
	10:25	57.5	76	50.0	2	W	5	W	29.942
	10:30	57.5	75	49.6	3	W	5	WNW	29.941
	10:35	57.4	75	49.5	2	WNW	4	NW	29.938
	10:40	57.7	75	49.8	2	NW	4	NW	29.936
	10:45	57.8	73	49.2	2	NW	5	NW	29.936
	10:50	58.3	74	50.0	2	W	5	WNW	29.934
	10:55	58.6	74	50.3	4	WNW	7	WNW	29.932
	11:00	59.0	73	50.4	3	NW	7	NW	29.929
	11:05	58.9	73	50.3	3	NW	7	WNW	29.929
	11:10	59.4	73	50.7	2	NE	3	NNW	29.928
	11:15	59.8	72	50.8	3	WNW	7	WNW	29.927

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Vancouver, Washington

Date	Time	Outside Temperature (°F)	Outside Humidity (%)	Dew Point (°F)	Wind Speed (mph)	Wind Direction	High Wind Speed (mph)	High Wind Driection	Barometric Pressure (inches)
9/21/2016	11:20	59.8	71	50.4	3	WNW	9	WNW	29.925
(cont'd)	11:25	60.0	71	50.6	3	W	6	W	29.924
	11:30	60.3	70	50.5	3	WNW	7	NW	29.921
	11:35	60.6	69	50.4	3	NW	8	NW	29.919
	11:40	60.9	69	50.7	3	WNW	7	NW	29.916
	11:45	61.4	69	51.1	2	WSW	5	NNW	29.915
	11:50	62.0	67	50.9	3	WNW	7	WNW	29.912
	11:55	62.2	65	50.3	4	WNW	7	WNW	29.908
	12:00	62.0	66	50.5	5	NW	10	NW	29.908
	12:05	62.0	66	50.5	4	NW	7	NW	29.905
	12:10	62.6	65	50.7	3	NW	5	NNW	29.902
	12:15	63.2	64	50.8	3	NW	9	WNW	29.900
	12:20	63.5	64	51.1	3	NNW	10	NW	29.896
	12:25	63.6	63	50.8	3	NW	6	NW	29.892
	12:30	64.2	61	50.5	2	W	6	WNW	29.890
	12:35	64.4	60	50.2	4	NW	10	NW	29.887
	12:40	64.7	61	50.9	4	NW	8	WNW	29.887
	12:45	64.6	61	50.8	4	WNW	8	NW	29.884
	12:50	64.8	60	50.6	5	NW	10	NW	29.882
	12:55	65.2	59	50.5	3	NNW	8	NW	29.880
	13:00	65.6	60	51.3	4	WNW	10	NW	29.878
	13:05	65.9	58	50.7	5	NW	11	WNW	29.877
	13:10	66.1	58	50.9	5	WNW	9	NW	29.876
	13:15	66.6	58	51.4	5	WNW	8	WNW	29.873
	13:20	66.8	56	50.6	4	WNW	9	WNW	29.872
	13:25	67.2	56	51.0	4	WNW	9	WNW	29.870
	13:30	67.5	55	50.8	5	WNW	10	W	29.869
	13:35	67.5	54	50.3	6	NW	10	WNW	29.866
	13:40	67.9	56	51.6	2	W	7	NW	29.864
	13:45	68.8	54	51.5	3	NW	7	NW	29.860
	13:50	68.9	54	51.6	4	NW	7	NNW	29.857
	13:55	69.5	53	51.6	3	NW	6	W	29.857
	14:00	69.7	51	50.8	5	NW	11	NW	29.855
	14:05	69.4	54	52.0	4	NW	10	NW	29.853
	14:10	70.0	51	51.0	4	W	8	W	29.852

TABLE D-1
Weather Station Data
Plaid Pantry No. 112
Vancouver, Washington

Date	Time	Outside Temperature (°F)	Outside Humidity (%)	Dew Point (°F)	Wind Speed (mph)	Wind Direction	High Wind Speed (mph)	High Wind Driection	Barometric Pressure (inches)
9/21/2016	14:15	70.4	51	51.4	4	W	9	NW	29.849
(cont'd)	14:20	70.6	49	50.5	5	W	8	NW	29.850
	14:25	71.0	49	50.9	3	WNW	7	WNW	29.847
	14:30	71.2	48	50.5	4	NW	8	WNW	29.846
	14:35	71.5	46	49.6	4	NW	9	WNW	29.845
	14:40	71.7	45	49.2	5	NW	11	NW	29.842
	14:45	71.7	44	48.6	4	NW	9	NW	29.842
	14:50	71.9	44	48.8	5	WNW	10	NW	29.840
	14:55	71.8	42	47.5	5	NW	11	NW	29.838
	15:00	72.2	41	47.2	4	NW	9	WNW	29.837
	15:05	72.2	42	47.8	5	NW	10	WNW	29.836
	15:10	72.6	40	46.9	4	NW	9	NW	29.834
	15:15	72.4	43	48.6	5	WNW	10	WNW	29.832
	15:20	72.7	44	49.5	4	NW	9	NW	29.830
	15:25	72.6	44	49.4	5	NW	9	NNW	29.830
	15:30	72.6	43	48.8	5	NW	14	NW	29.828
	15:35	72.8	42	48.4	4	NW	8	WNW	29.828
	15:40	73.1	41	48.0	4	N	7	WNW	29.830
	15:45	73.3	41	48.2	4	NNW	9	W	29.829
	15:50	73.3	43	49.4	4	WNW	12	NW	29.827
	15:55	73.2	42	48.7	4	WNW	11	NW	29.827
	16:00	73.3	42	48.8	4	NW	9	NNW	29.825
	16:05	73.2	41	48.1	6	NW	11	NW	29.824
	16:10	73.2	39	46.8	5	NW	11	NW	29.824
	16:15	73.4	40	47.6	4	NW	10	NW	29.821
	16:20	73.7	41	48.5	4	W	13	NW	29.821
	16:25	73.6	40	47.8	5	NW	10	NW	29.819
	16:30	73.7	41	48.5	3	NW	8	N	29.817
	16:35	73.7	43	49.8	4	W	10	WNW	29.815
	16:40	73.2	42	48.7	6	NW	13	NW	29.816
	16:45	73.0	41	47.9	6	NW	12	NNW	29.817
	16:50	72.8	41	47.7	5	NW	15	NNW	29.815
	16:55	72.8	36	44.3	5	WNW	11	NNW	29.816
	17:00	72.9	38	45.8	5	NW	9	NNW	29.815
	17:05	73.0	39	46.6	4	NW	9	WNW	29.814

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Weather Station Data
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Date	Time	Outside Temperature (°F)	Outside Humidity (%)	Dew Point (°F)	Wind Speed (mph)	Wind Direction	High Wind Speed (mph)	High Wind Driection	Barometric Pressure (inches)
9/21/2016	17:10	73.1	37	45.3	4	NW	11	E	29.816
(cont'd)	17:15	73.1	37	45.3	4	NNW	9	WNW	29.816
	17:20	73.0	38	45.9	5	NW	12	NNW	29.814
	17:25	72.8	40	47.1	4	NW	13	W	29.813
	17:30	72.5	42	48.1	5	NW	10	NNW	29.813
	17:35	72.2	42	47.8	5	N	11	NNE	29.812
	17:40	72.3	44	49.2	3	NNE	11	NW	29.812
	17:45	72.2	43	48.5	4	NNW	11	W	29.810
	17:50	72.1	44	49.0	3	NNW	9	WSW	29.811
	17:55	72.1	44	49.0	3	NW	8	NNW	29.810
	18:00	71.8	45	49.3	4	NW	9	NNW	29.810
	18:05	71.6	45	49.1	4	NW	10	NW	29.809
	18:10	71.3	45	48.9	4	NE	8	NNW	29.814
Average Over Period	*9:45*	65.1	58.88	49.2	4	WNW	8	WNW	29.884
9/22/2016	9:30	54.1	82	48.7	2	E	4	E	29.978
	9:35	54.2	83	49.1	2	E	4	E	29.978
	9:40	54.4	82	49.0	1	E	3	E	29.983
	9:45	54.4	82	49.0	2	E	5	E	29.982
	9:50	54.6	82	49.2	2	E	4	E	29.981
	9:55	54.8	82	49.4	2	ESE	4	E	29.980
	10:00	55.0	81	49.3	3	SE	5	ESE	29.980
	10:05	55.1	81	49.4	2	SE	6	SE	29.980
	10:10	55.4	81	49.7	2	E	5	E	29.984
	10:15	55.7	81	50.0	1	E	5	S	29.985
	10:20	55.9	81	50.2	2	E	4	E	29.984
	10:25	56.0	81	50.3	2	ESE	4	ESE	29.986
	10:30	56.3	81	50.5	1	ESE	2	S	29.985
	10:35	56.5	80	50.4	2	E	5	E	29.985
	10:40	56.8	80	50.7	1	SSE	4	SE	29.987
	10:45	57.0	79	50.5	2	E	4	SE	29.988
	10:50	57.3	78	50.5	0	ESE	3	SW	29.991
	10:55	57.4	78	50.6	1	WSW	3	SW	29.992
	11:00	57.6	78	50.8	1	WSW	3	W	29.995
	11:05	57.7	77	50.5	1	S	4	S	29.997
	11:10	57.8	77	50.6	2	SW	4	WSW	29.995

TABLE D-1
Weather Station Data
Plaid Pantry No. 112
Vancouver, Washington

Date	Time	Outside Temperature (°F)	Outside Humidity (%)	Dew Point (°F)	Wind Speed (mph)	Wind Direction	High Wind Speed (mph)	High Wind Driection	Barometric Pressure (inches)
9/22/2016	11:15	57.8	77	50.6	1	W	3	WSW	29.998
(cont'd)	11:20	57.8	77	50.6	0	WSW	3	WSW	29.998
	11:25	58.0	77	50.8	1	SW	4	SW	29.998
	11:30	57.9	76	50.4	1	WSW	3	W	29.997
	11:35	58.1	76	50.6	1	S	2	S	29.996
	11:40	58.2	77	51.0	1	W	3	WSW	29.997
	11:45	58.3	75	50.4	2	WSW	4	W	29.997
	11:50	58.3	75	50.4	2	NW	3	WSW	30.000
	11:55	58.2	75	50.3	1	WSW	3	WSW	29.998
	12:00	58.3	75	50.4	0	WSW	2	WSW	29.998
	12:05	58.7	75	50.8	1	N	4	ENE	29.998
	12:10	59.1	74	50.8	1	ENE	2	N	29.999
	12:15	59.4	73	50.7	1	NNE	3	NE	29.998
	12:20	59.5	73	50.8	1	N	4	E	29.998
	12:25	59.6	72	50.6	1	ESE	3	E	29.997
	12:30	59.9	72	50.8	1	ESE	3	NE	29.997
	12:35	59.8	69	49.6	3	NE	4	E	29.997
	12:40	59.7	70	49.9	1	NE	2	NE	30.000
	12:45	59.9	70	50.1	1	SSW	3	SSW	30.003
	12:50	60.1	70	50.3	1	NNE	3	NE	30.004
	12:55	60.1	69	49.9	2	NW	3	WNW	30.004
	13:00	60.4	68	49.8	1	NE	4	ENE	30.004
	13:05	60.5	67	49.5	3	ENE	7	ESE	30.003
	13:10	60.9	68	50.3	2	S	5	SE	30.004
	13:15	61.3	67	50.2	2	SE	6	SE	30.005
Average Over Period	*3:45*	57.7	76	50.2	1	SE	4	SSE	29.993

Notes:

Data collected from a Davis Vantage Pro 2 Weather Station installed on the roof of the Property building.

Italics indicate the length of the measuring period.