VENTILATION WORK PLAN

Texaco Strickland Site

Prepared for: Strickland Real Estate Holdings, LLC

Project No. 180357 • January 6, 2023 • DRAFT

Aspect CONSULTING

earth + water

VENTILATION WORK PLAN

Texaco Strickland Site

Prepared for: Strickland Real Estate Holdings, LLC and Chevron Environmental Management Company

Project No. 180357 • January 6, 2023 • DRAFT

Aspect Consulting, LLC

Breeyn Greer, PE
Project Engineer
bgreer@aspectconsulting.com

Adam Griffin, PE
Senior Associate Remediation Engineer
agriffin@aspectconsulting.com

Andrew Yonkofski, LHG
Senior Hydrogeologist
ayonkofski@aspectconsulting.com

V:\180357 Aloha Cafe\Deliverables\Ventilation Work Plan\Ventilation Work Plan_Draft.docx

Contents

1 Introduction 1
1.1 Objectives 1

2 November 2022 Vapor Intrusion Assessment 2
2.1 Ambient, Crawlspace, and Indoor Air Sampling 2
2.1.1 Ambient Air Sampling 3
2.1.2 Crawlspace Air Sampling 3
2.1.3 Indoor Air Sampling 3
2.2 Analytical Results 3
2.2.1 Ambient Air Analytical Results 4
2.2.2 Crawlspace Air Analytical Results 4
2.2.3 Indoor Air Analytical Results 4
2.3 Conclusion and Recommendations 5

3 Crawlspace Ventilation 6
3.1 Layout and Equipment Specifications 6
3.2 Installation and Startup Plan 7

4 Operation and Maintenance Plan 8

5 Compliance Monitoring Plan 9
5.1 Protection Monitoring 9
5.2 Performance Monitoring and Conversion of Crawlspace Ventilation System to Passive Venting 9
5.3 Confirmation Monitoring 10
5.4 Reporting 11

6 References 12

7 Limitations 13

List of Tables

A AMG Fan Curves (in-text)

1 November 2022 Air Analytical Results

List of Figures

1 Site Location Map

2 Soil Gas and Air Sampling Locations

3 Proposed Crawlspace Ventilation Schematic

4 Compliance Monitoring Plan Flowchart

List of Appendices

A Laboratory Reports

B AMG Legend Fan Specifications

1 Introduction

Aspect Consulting, LLC (Aspect) has prepared this Ventilation Work Plan (Work Plan), on behalf of Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC) to describe ventilation activities to be completed at the Chri-Mar Apartment Building (Building) at 19618 68th Avenue West in Lynnwood, Washington. The ventilation is associated with Remedial Investigation (RI) activities at the Texaco Strickland Cleanup Site (the Site[1]), located at 6808 196th Street SW in Lynnwood, Washington (the Property; Figure 1). The Property is recorded by the Snohomish County Tax Assessor as tax parcel #27042000200600. The Site RI activities are being conducted under an Agreed Order (AO) with the Washington State Department of Ecology (Ecology) recorded as AO No. 14315 on August 28, 2018.

The planned ventilation is based on the results of the ongoing Remedial Investigation (RI) outlined in the RI Work Plan (RIWP; Aspect, 2019), RIWP Addendum (Aspect, 2020), and Vapor Intrusion Assessment Report (VIAR; Aspect, 2022). The RI has been conducted in an iterative process to close the identified data gaps related to the nature and extent of contamination at the Site, including the vapor intrusion (VI) pathway, which was identified as one of the RI data gaps (Aspect, 2019). The VI assessment has included numerous investigations beginning with characterizing and delineating petroleum hydrocarbon impacts to Site soil and groundwater; collecting soil gas samples in areas of the Site where concentrations of petroleum hydrocarbons in soil or groundwater may volatilize into soil gas; delineating petroleum hydrocarbon impacts to soil gas at the Site; and assessing potential impacts from Site soil gas on crawlspace and indoor air quality at the Chri-Mar Building. The RI included soil vapor sampling and a VI assessment at the Building. The RI results will be compiled in the AO-required deliverable RI Report. The VI assessment results form the basis of the planned ventilation described herein.

1.1 Objectives

This Work Plan is organized as follows:

- Section 2 presents the results of the November 2022 VI assessment conducted at the Building.
- Section 3 identifies crawlspace ventilation design.
- Section 4 presents an O&M Plan to ensure the system is functioning properly for the protection of human health.
- Section 5 outlines a Compliance Monitoring Plan, which establishes the process for crawlspace ventilation termination (including first conversion from active ventilation to passive venting and subsequent decommissioning of the system).

[1] Ecology Cleanup Site ID 12541, Facility ID 27496218, and Underground Storage Tank (UST) site ID 6802

2 November 2022 Vapor Intrusion Assessment

The section presents the results of Tier II VI assessment work conducted in November 2022. The scope of work for the November 2022 event was detailed in the Vapor Intrusion Assessment Results and Recommendations Memorandum (Aspect, 2021b) and approved by Ecology in an email dated November 1, 2021 (Ecology, 2021). The work was conducted following the version of Ecology's Guidance for Evaluating Vapor Intrusion in Washington State (Ecology, 2022) which was current at the time each stage of the VI assessment occurred.

The VI assessment activities at the Site have included on-Property soil gas sampling, evaluation of the Building construction and ventilation characteristics, and crawlspace and indoor air sampling at the Building in July 2019, August 2020, November 2020, July 2021, and December 2021. These events are detailed in the VIAR (Aspect, 2022); the first indoor air sampling event was conducted in December 2021. A second indoor air sampling event was proposed to assess potential seasonality and variability of the VI assessment. The second event was postponed twice in July and August 2022 due to extreme heat and the building units have all windows open with fans operating, creating an abnormal building ventilation condition compared to previous events. Ecology was notified of the condition and requested the second event be performed when it cooled down and the use of windows and fans by residents was reduced.

During the fall of 2022 the interim action was in active construction (Aspect, 2021a), and the second event was conducted in November 2022 once remedial excavation on the Property was complete and the site source area had been removed, as to not artificially elevate the ambient air sample results. This section presents the results of the second indoor air sampling event, which was conducted in November 2022.

2.1 Ambient, Crawlspace, and Indoor Air Sampling

Ambient, crawlspace, and indoor air samples were collected over a time-integrated 24-hour period on November 16 and November 17, 2022. All sample locations from the November 2022 sampling event are shown on Figure 2. Air samples were collected using 6-L cannisters prepared under negative pressure and lab-certified clean for volatile organic compounds (VOCs). The cannisters were equipped with dedicated flow regulators for a 24-hour sampling event.

The initial vacuum in each cannister varied between 29 to greater than 30 inches of mercury. During the sampling period, the vacuum in the cannister was monitored to ensure that the flow regulator was functioning properly. The final vacuum varied between 2 and 8 inches of mercury.

During the sampling period, the barometric pressure, as measured onsite using a GEM-5000 multigas meter, decreased from 30.56 inches of mercury to 30.48 inches of mercury. Based on weather data from a local meteorological station, the outside temperature varied between 36 and 48 degrees and relative humidity varied between 50 and 100 percent. The wind was calm with a wind speed between 0 and 11.5 miles per hour and wind direction which varied from north-northeast to north-northeast.

2.1.1 Ambient Air Sampling

The purpose of ambient air sampling during a VI assessment is to estimate how much ambient air is contributing to the measured indoor air concentrations. Two ambient air samples were collected during the November 2022 sampling event as shown on Figure 2:

- AMB-1 was collected on the north side of the Building
- AMB-2 was collected to the southwest of the Building

The tubing intake for each canister was set at an approximate height of 6 feet above the ground surface.

2.1.2 Crawlspace Air Sampling

Crawlspace air samples beneath each Building apartment unit were obtained concurrently with indoor air samples. The tubing intake for the crawlspace air samples was placed at approximately the mid-height of the crawlspace and where the plumbing penetrations entered the bathroom for the western three units (Units #125, #127, and #129) and the kitchen for the easternmost unit (Unit #131) as shown on Figure 2.

2.1.3 Indoor Air Sampling

Prior to deploying sampling equipment in each unit, the common household cleaners observed during building reconnaissance visits were placed into a tote and removed from the Building. In Units #125, #127, and #129, two samples were collected (Figure 2) – one in the living area as the commonly occupied space of each unit and one in each bathroom to assess any potential preferential pathways resulting from the configuration of the bathroom exhaust fans. In Unit #131, where no ground floor bathroom is present, a second sample was collected in the living area as a field duplicate.

2.2 Analytical Results

Air samples were delivered to Friedman & Bruya, Inc. in Seattle, Washington for analysis of the following Site contaminants of concern (Site COCs):

- Benzene, toluene, ethylbenzene, total xylenes, and naphthalene (gas-range VOCs) by United States Environmental Protection Agency (EPA) Method TO-15
- Aliphatic and aromatic hydrocarbons by Massachusetts Department of Environmental Protection Method for Air-Phase Petroleum Hydrocarbons (MA APH)

The laboratory analytical report is included as Appendix A and the tabulated analytical results are in Table 1. All sample locations are shown in Figure 2. It should be noted that the analytical report is still undergoing third party data validation in accordance with the AO and therefore the results in Appendix A and Table 1 are subject to change as a result of data validation.

Analytical results for air (both crawlspace and indoor air) were adjusted for ambient, background conditions in accordance with Ecology guidance (Ecology, 2022) and compared to the generic MTCA Method B cleanup level for total petroleum hydrocarbons (TPH)[2] in indoor air.

[2] TPH in air is the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gasoline-range VOCs.

2.2.1 Ambient Air Analytical Results

Upwind of the Building at location AMB-1, benzene was detected at a concentration of 0.70 micrograms per cubic meter (µg/m^3), which exceeds the MTCA Method B indoor air cleanup level (henceforth referred to as 'cleanup level') of 0.32 µg/m^3. Benzene was detected at a similar concentration (0.69 µg/m^3) in the second ambient air sample, which was located down/crosswind of the Building. Naphthalene was also detected in the upwind sample at a concentration of 0.057 µg/m^3, which is below the cleanup level of 0.074 µg/m^3.

The C5-C8 aliphatic, C9-C12 aliphatic, and C9-10 aromatic air-phase hydrocarbons were not detected in either of the ambient air samples (Table 1). However, summing one-half the reporting limit results in a TPH concentration at both locations exceeds the generic cleanup level for TPH of 46 µg/m^3.

2.2.2 Crawlspace Air Analytical Results

Crawlspace air analytical results were adjusted for background ambient air concentrations in accordance with Ecology's guidance (Ecology, 2022) to determine what contribution VI potentially had on crawlspace air quality[3].

Based on the results of this evaluation, all four of the crawlspace air samples collected below Units #125, #127, #129, and #131 contained TPH above the generic MTCA Method B indoor air cleanup level (46 µg/m^3), ranging in concentration from 400 to 2,240 µg/m^3 (Table 1). The crawlspace air sample collected below Unit #127 also contained naphthalene at a concentration of 0.36 µg/m^3, which exceeds the MTCA Method B indoor air cleanup level of 0.074 µg/m^3.

2.2.3 Indoor Air Analytical Results

Indoor air analytical results were adjusted for background ambient air concentrations in accordance with Ecology's guidance (Ecology, 2022) to determine the potential contribution from vapor intrusion on indoor air quality. The adjusted analytical results are summarized by residential unit (Table 1):

- Unit #125 – The concentration of TPH exceeds the cleanup level in both the living room and bathroom (218 and 216 µg/m^3, respectively). The concentration of each of the gas-range VOCs was below the cleanup levels in the living room sample location. Naphthalene was detected at a concentration of 0.083 µg/m^3, which exceeds the cleanup level, in the bathroom sample.
- Unit #127 – The concentration of TPH and each of the gas-range VOCs was below the cleanup levels in both the living room and bathroom.
- Unit #129 – The concentration of TPH was greater than the cleanup level in both the living room and bathroom (156 and 102 µg/m^3, respectively). The concentration of each of the gas-range VOCs was below the cleanup levels in the

[3] In crawlspace and indoor air results adjusted for ambient air quality, if the reported result for an individual analyte was less than the upwind ambient air concentration or if the analyte was not detected in either the crawlspace air or ambient air result, the adjusted value was summed as zero in the TPH calculation.

bathroom sample location. Naphthalene was detected at a concentration of 0.17 µg/m^3, which exceeds the cleanup level, in the living room sample.

- Unit #131 – The concentration of TPH was greater than the cleanup level in both the living room and bathroom (157 and 142 µg/m^3, respectively). The concentration of naphthalene in both the living room and bathroom sample locations (0.19 and 0.20 µg/m^3, respectively) exceeded the cleanup level. The other gas-range VOCs concentrations were below the cleanup levels in both locations.

2.3 Conclusion and Recommendations

Based on the results of the December 2021 VI assessment sampling event, the VI pathway between impacts to Site soil gas and crawlspace/indoor air quality in the Building did not appear to be complete. This conclusion was based on four lines of evidence as detailed in the VIAR (Aspect, 2022), with the primary line of evidence being that in December 2021 neither TPH nor any individual gas-range VOCs were detected in crawlspace air above their respective MTCA Method B indoor air cleanup levels. However, concentrations of contaminants in soil gas and the potential for vapor intrusion are variable due to numerous factors.

The crawlspace air analytical results varied significantly between the first air sampling event in December 2021 and the second air sampling event in November 2022 when TPH and naphthalene were both detected at concentrations one to two orders of magnitude above their cleanup levels (Table 1). However, indoor air concentrations of TPH varied between 38 µg/m^3 in Unit #127 (below the cleanup level of 46 µg/m^3) and 218 µg/m^3 in Unit #125. While the concentrations of TPH exceeded the cleanup level in three of the four ground floor units, they are in the range of potential background concentrations[4] of 116 to 594 µg/m^3 from non-VI sources as described in Appendix E of Ecology's guidance (Ecology, 2022).

It is uncertain whether the concentrations of TPH in indoor air measured in November 2022 are a result of VI or are due to background sources within each unit, particularly given the variability between the analytical results from the December 2021 and November 2022 air sampling events.

The November 2022 results were communicated to Ecology on December 13, 2022. Ecology recommended that an active ventilation system be installed in the crawlspace of the Building because of the uncertainty associated with the recent results and the concentrations of TPH measured in the crawlspace.

Prior to the installation of the ventilation system, another ambient, crawlspace, and indoor air sampling event will be conducted with the same scope and methodology of the November 2022 sampling event (presented in Section 2.1) to further assess potential variability and establish pre-ventilation conditions.

[4] This range of potential background TPH concentrations from non-VI sources was compiled by the Massachusetts Department of Environmental Protection and represent the 50th to 90th percentile.

3 Crawlspace Ventilation

The purpose of the crawlspace ventilation system is to prevent potentially contaminated vapors from soil gas from intruding into the crawlspace and the indoor air space within the Building. The crawlspace ventilation system operates on the principal of maintaining a negative pressure differential directly under the crawlspace, where soil gases could accumulate. The crawlspace ventilation system is designed as an active depressurization system for the entire crawlspace that will be converted to passive ventilation.

3.1 Layout and Equipment Specifications

A diagram of the proposed crawlspace ventilation system is included as Figure 3. The crawlspace ventilation system will consist of two hand-perforated, four-inch, high density polyethylene (HDPE) piping laterals that join at a central location to a 4-inch 3034 polyvinyl chloride (PVC) or acrylonitrile-butadiene-styrene (ABS) main. Perforated laterals are placed on bare ground in the crawlspace and covered with 6-millimeter low density polyethylene plastic sheeting cut to 2-feet larger than the crawlspace and installed and sealed to the foundation walls and footings per established American National Standards Institute (ANSI) and American Association of Radon Scientists and Technologists (AARST) protocols (ANSI/AARST, 2017). The main pipe connects to a four-inch PVC or ABS vertical riser pipe equipped with an electric exhaust fan. The exhaust fan operates continuously, creating a negative pressure from beneath the crawlspace and venting to the atmosphere 14-inches above the roof of the Building via the riser pipe.

Exhaust fans are in-line fans that induce up to 5.0 inches of water vacuum with sufficient flow rate to induce a vacuum beneath the membrane throughout the crawlspace. Example exhaust fans that are expected to meet these requirements is the AMG Legend or AMG Legend Extreme by Festa Radon Technologies Company (Appendix B). Fan curves for both models can be found in Table A, below. The exact fan will be selected in the field based on the results of the installer's patented diagnostic vacuum tester.

Table A. AMG Fan Curves

	AMG Legend	**AMG Legend Extreme**
(inches water column)	(cubic feet per minute)	(cubic feet per minute)
0.0	345	571
0.5	287	489
1.0	242	457
1.5	176	396
2.0	77	327
2.5	6	273
3.0	N/A	199
3.5	N/A	147
4.0	N/A	92

A vacuum gauge will be installed near the fan to monitor the vacuum created by the crawlspace ventilation system over time and provide a measurement range from 0 to 10 inches of water column.

3.2 Installation and Startup Plan

Installation will include the following:

- Aboveground perforated piping will be laid on bare soil in the crawl space.
- Physical vapor barrier membrane (6-mil low density polyethylene LDPE) will be placed above the perforated piping and sealed to the foundation walls.
- Fan and riser to the roofline will be installed on the building's north facing exterior wall.
- Electrical service to the fan will be connected. The fans will require single-phase, 110-volt service. Electrical hookups will be coordinated with the Building owner and a subcontracted licensed electrician.
- Vacuum gauge and sample port will be installed in the riser piping, upstream of the fan inlet to monitor performance.

Aspect will oversee the installation and record as-built information. After installation, startup will include verifying fan operation and measuring vacuum at the monitoring point.

4 Operation and Maintenance Plan

Crawlspace ventilation monitoring will be conducted to ensure the functionality of the crawlspace ventilation system and identify any damage to the system. The crawlspace ventilation system will be monitored monthly for the first six months. If the system operates with minimal maintenance, then monitoring may be transitioned to quarterly frequency until it is converted to a passive venting system in accordance with Section 5 below. Active ventilation operational monitoring includes ensuring the fan is running, monitoring the vacuum on the inlet side of the fan, and checking the system for physical damage. Once the system is converted to a passive venting system, there is no operation and maintenance (O&M) required as there are no moving parts and only annual inspection for structural integrity is required.

There is no routine maintenance for the crawlspace ventilation system; however, maintenance will occur on an as needed basis. The only system component that would normally be expected to fail over time is the exhaust fan, the system's one moving component. The exhaust fan is an inexpensive "off-the-shelf" item and able to be replaced as-needed following regular use. Therefore, the fan is simply operated until it shows signs of failure (e.g., excessive noise or vibration, significantly reduced vacuum gauge readings), at which point it will be replaced. The system installer has estimated the fan's life expectancy at 30 years. Other examples of system maintenance that may need to be performed on occasion includes replacement of cracked or otherwise damaged system piping. The need for any maintenance is generally triggered by conditions observed during an inspection.

If an inspection indicates the system is not functioning properly or identifies damage to the system, then the system will be repaired promptly. Any repairs made to the system would be reported to Ecology within 30 days after completion of the repairs.

5 Compliance Monitoring Plan

This section outlines compliance monitoring for the ventilation system, which includes protection monitoring, performance monitoring, and confirmation monitoring as required by MTCA in WAC 173-340-41. Additionally, this section details the steps that will be taken to convert the active crawlspace ventilation system to passive venting based on performance monitoring and decommissioning of the passive venting system based on confirmation monitoring.

All compliance monitoring air samples will be collected in accordance with the procedures established for the Site as detailed in the VIAR (Aspect, 2022). A flowchart summarizing the process described below can be found in Figure 4.

5.1 Protection Monitoring

Protection monitoring will consist of indoor air sampling initially performed on the same twice-yearly basis as the performance monitoring described in Section 5.2, below. Due to indoor air quality typically being affected by household products and other indoor air sources (Ecology, 2022), indoor air sampling will not be a point of compliance under this compliance monitoring plan. Monitoring will be conducted to 1) document how the crawlspace ventilation system impacts indoor air quality over time and 2) to provide additional monitoring results to complete the VI assessment and evaluate whether the concentrations in indoor air measured in November 2022 are a result of VI or are due to other sources.

If indoor air concentrations exceed crawlspace air concentrations for two consecutive events, then indoor air sampling will no longer be conducted as part of the performance monitoring. Protection monitoring will be terminated at the time of conversion of crawlspace ventilation system to passive venting and initiation of confirmation monitoring regardless of indoor air concentrations because other lines of evidence will have demonstrated that indoor air quality is not being affected by potential VI, as further discussed in the sections below.

5.2 Performance Monitoring and Conversion of Crawlspace Ventilation System to Passive Venting

Following the first month of continuous operation of the active crawlspace ventilation system, performance monitoring of the ventilation system will be conducted on a twice-yearly basis. Performance monitoring will include collection of the following air samples during each event:

- Two ambient air samples from upwind and down/crosswind of the Building
- Four crawlspace air samples from underneath each of the ground floor units
- One ventilation system air sample, to be collected from the upstream side of the fan

Protection monitoring (consisting of indoor air sampling) will be conducted concurrently, as described in Section 5.1 above. The results from each performance monitoring event

will be compared to the cleanup levels. The active crawlspace ventilation system may be considered for conversion into a passive venting system when either of the following conditions are met:

- If concentrations of Site COCs in crawlspace air are less than their respective cleanup levels, and concentrations of Site COCs in active ventilation air is greater than crawlspace air for two consecutive monitoring events or,
- If concentrations of Site COCs in the ventilation system air are less than their respective cleanup levels for two consecutive monitoring events.

Once one of the above conditions is met, the system will be turned off for a minimum of one month but no greater than two months in advance of conducting a post-shutdown performance monitoring event in the winter.

- If Site COCs concentrations in the post-shutdown performance monitoring event in the ventilation system air sample are less than their respective cleanup levels, then the crawlspace ventilation system will be converted into a passive venting system by disconnecting the fan from its power source or removing the fan. Once the fan is removed, then the vertical riser must be reconnected to the roofline.
- If a Site COC is detected in the post-shutdown performance monitoring event in the ventilation system air sample at a concentration exceeding its cleanup level, then the crawlspace ventilation system is not eligible for conversion and must continue to be operated and monitored on a quarterly basis in accordance with Section 4 above, and twice-yearly performance monitoring should continue.

If performance monitoring indicates that concentrations of Site COCs in crawlspace air and active ventilation system air are both above their respective cleanup levels, then the active ventilation system will remain in operation. The O&M will continue in accordance with Section 4 above and twice-yearly performance monitoring should continue.

5.3 Confirmation Monitoring

Following the conversion of the active crawlspace ventilation system to passive venting, confirmation monitoring will be conducted on a twice-yearly basis. Confirmation monitoring will include collection of the following air samples during each event:

- Two ambient air samples from upwind and down/crosswind of the Building
- One passive venting air sample, to be collected from the same sample port as used for performance monitoring of the active ventilation system. Because the system will no longer be active, air must first be purged from the vent prior to sample collection. Three casing volumes will be purged prior to sample collection. After the purge is completed, the sample train will be leak tested using helium as a tracer to ensure no atmospheric air enters the system. The temporary sample port should be removed at the end of sampling and sealed with a threaded plug.

The passive air venting results will be used for compliance since that air will be isolated from the crawlspace air by the 6-mil LDPE and therefore will best represent the contribution of any potential soil gas contamination. The results from two consecutive

confirmation monitoring events will be compared to applicable cleanup levels to form the basis of ongoing monitoring, if necessary:

- If concentrations of Site COCs are detected in the passive venting air sample below their cleanup levels in each of the two consecutive confirmation monitoring events, confirmation monitoring will cease. At this point it has been demonstrated that the system is no longer needed and could be decommissioned.
- If concentrations of Site COCs are detected in the passive venting air sample above their cleanup levels, confirmation monitoring will continue on a twice-yearly basis.

Confirmation monitoring of the passive venting system will be re-evaluated once additional compliance monitoring data is available and may be updated in the future as part of the Cleanup Action Plan (CAP) or annual compliance monitoring reports.

5.4 Reporting

The results of each O&M inspections and compliance monitoring will be incorporated into the AO-required progress reports to be submitted to Ecology.

Should the performance criteria for decommissioning be met and pursued, Ecology will be provided with the final confirmation monitoring results no less than 30 days after the validated results are received along with the decision to decommission the system. Ecology will be notified a minimum of 30-days in advance of decommissioning activities.

This compliance monitoring plan is based on known Site conditions at the time of publication and subject to revisions based on the final cleanup action selected for this Site as evaluated in the FS and outlined in the future CAP.

6 References

American National Standards Institute (ANSI) and American Association of Radon Scientists and Technologists (AARST), 2017, Soil Gas Mitigation Standards for Existing Homes, Publication No. SGM-SF-2017, revised December, 2020.

Aspect Consulting, LLC (Aspect), 2019, Remedial Investigation Work Plan, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington, dated March 6, 2019.

Aspect Consulting, LLC (Aspect), 2020, Remedial Investigation Work Plan Addendum, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington, dated May 28, 2020.

Aspect Consulting, LLC (Aspect), 2021a, Interim Action Work Plan, Texaco Strickland Site, dated August 6, 2021.

Aspect Consulting, LLC (Aspect), 2021b, Vapor Intrusion Assessment Results and Recommendations, Texaco Strickland Site, Agreed Order No. 14315, October 14, 2021.

Aspect Consulting, LLC (Aspect), 2022, Vapor Intrusion Assessment Report, Texaco Strickland Site, Agreed Order No. 14315, dated January 26, 2022.

US Environmental Protection Agency (USEPA), 2015, Office of Solid Waste and Emergency response (OSWER) Technical guide for assessing and mitigating the vapor intrusion pathway from subsurface vapor sources to indoor air, Washington DC, June, 2015.

Washington State Department of Ecology (Ecology), 2021, Email Correspondence between Dale Meyers and Andrew Yonkofski, November 1, 2021

Washington State Department of Ecology (Ecology), 2022, Guidance for Evaluating Vapor Intrusion in Washington State, Investigation and Remedial Action, Toxics Cleanup Program Publication No. 09-09-047, dated March 2022.

7 Limitations

Work for this project was performed for the Strickland Real Estate Holdings, LLC (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

TABLES

Table 1. Ambient, Crawlspace, and Indoor Air Analytical Results - November 2022

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT - UNVALIDATED DATA
SUBJECT TO CHANGE

	Location/Unit	Ambient		Unit #125					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]
	Sample ID	AMB-1-111622	AMB-2-111622	CS-125-1111622	--	IA-125-1-111622	--	IA-125-2-111622	--
Chemical Name	**MTCA Method B CUL[2] (Unrestricted Use)**								
Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m^3)									
Benzene	0.32	**0.70**	**0.69**	**0.76**	**0.06**	**0.62**	ND	**0.61**	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	**0.90**	**0.90**	**0.50**	**0.50**	**0.48**	0.48
Total Xylenes	46	**1.1**	**1.1**	**4.70**	**3.6**	**2.61**	ND	**2.06**	ND
Naphthalene	0.074	**0.057 J**	< 0.047 J	**0.079 J**	**0.022**	**0.12**	**0.063**	**0.14**	**0.083**
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	**2,200**	**2,200**	**77**	**77**	**85**	**85**
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	**35**	**35**	**140**	**140**	**130**	**130**
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons[3]	46	**74**	**74**	**2,263**	**2,240**	**243**	**218**	**240**	**216**

	Location/Unit	Ambient		Unit #127					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]
	Sample ID	AMB-1-111622	AMB-2-111622	CS-127-111622	--	IA-127-1-111622	--	IA-127-2-111622	
Chemical Name	**MTCA Method B CUL[2] (Unrestricted Use)**								
Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m^3)									
Benzene	0.32	**0.70**	**0.69**	**0.63**	ND	**0.47**	ND	**0.46**	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	**0.55**	**0.55**	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	**1.1**	**1.1**	**2.83**	**1.73**	**1.56**	**0.46**	**0.97**	ND
Naphthalene	0.074	**0.057 J**	< 0.047 J	**0.42**	**0.36**	**0.079**	**0.022**	**0.079**	**0.022**
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	**750**	**750**	< 75 U	ND	< 75 U	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	**38**	**38**	**41**	**41**
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons[3]	46	**74**	**74**	**789**	**753**	**100**	**38**	**102**	**41**

Table 1. Ambient, Crawlspace, and Indoor Air Analytical Results - November 2022

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT - UNVALIDATED DATA
SUBJECT TO CHANGE

	Location/Unit	Ambient		Unit #129					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]
	Sample ID	AMB-1-111622	AMB-2-111622	CS-129-111622	--	IA-129-1-111622	--	IA-129-2-111622	--
Chemical Name	**MTCA Method B CUL[2] (Unrestricted Use)**								
Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m^3)									
Benzene	0.32	**0.70**	**0.69**	**0.71**	**0.01**	**0.51**	ND	**0.53**	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	**0.6**	**0.6**	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	**1.1**	**1.1**	**3.1**	**2.0**	**1.0**	ND	**0.89**	ND
Naphthalene	0.074	**0.057 J**	< 0.047 J	**0.047 J**	ND	**0.23**	**0.17**	**0.13**	**0.073**
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	**1,500**	**1,500**	**94**	**94**	**76**	**76**
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	**62**	**62**	**26**	**26**
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons[3]	46	**74**	**74**	**1,539**	**1,503**	**180**	**156**	**126**	**102**

	Location/Unit	Ambient		Average Crawlspace Results					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room			
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]	Indoor Air, Reported	Indoor Air, Net[1]
	Sample ID	AMB-1-111622	AMB-2-111622	CS-131-111622	--	IA-131-1-11622	--	IA-FD-111622	--
Chemical Name	**MTCA Method B CUL[2] (Unrestricted Use)**								
Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m^3)									
Benzene	0.32	**0.70**	**0.69**	**0.62**	ND	**0.87**	**0.17**	**0.88**	**0.18**
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	**0.59**	**0.59**	**0.46**	**0.46**	**0.46**	**0.46**
Total Xylenes	46	**1.1**	**1.1**	**3.21**	**2.11**	**2.9**	**1.81**	**1.9**	**0.81**
Naphthalene	0.074	**0.057 J**	< 0.047 J	< 0.047 UJ	ND	**0.24**	**0.19**	**0.26**	**0.20**
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	**360**	**360**	**100**	**100**	**93**	**93**
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	**37**	**37**	**54**	**54**	**47**	**47**
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons[3]	46	**74**	**74**	**423**	**400**	**180**	**157**	**166**	**142**

Notes:

(1) Adjusted results were calculated by subtracting the upwind ambient air result from the crawlspace or indoor air result. If the reported crawlspace or indoor air result was less than the upwind ambient air concentration or if a certain analyte was not detected in either the crawlspace or indoor air sample and the ambient air result, the net value is shown as ND and summed as zero in the Total Petroleum Hydrocarbon calculation.

(2) Model Toxic Control Act (MTCA) Method B Indoor Air Cleanup Levels (CULs), including the generic Total Petroleum Hydrocarbons CUL.

(3) Total petroleum hydrocarbon concentration is the sum total of volatile organic compounds and aliphatic and aromatic hydrocarbons; one-half of the laboratory reporting limit was used for non-detects in reported results. Non-detects in adjusted results (ND) were summed as zero.

Bold results indicate analyte was detected.

Blue-highlighted values exceed the MTCA Method B Indoor Air Cleanup Levels for Unrestricted Land Use; only ambient air, net crawlspace air, and net indoor air values are screened against the MTCA Method B Indoor Air Cleanup Levels.

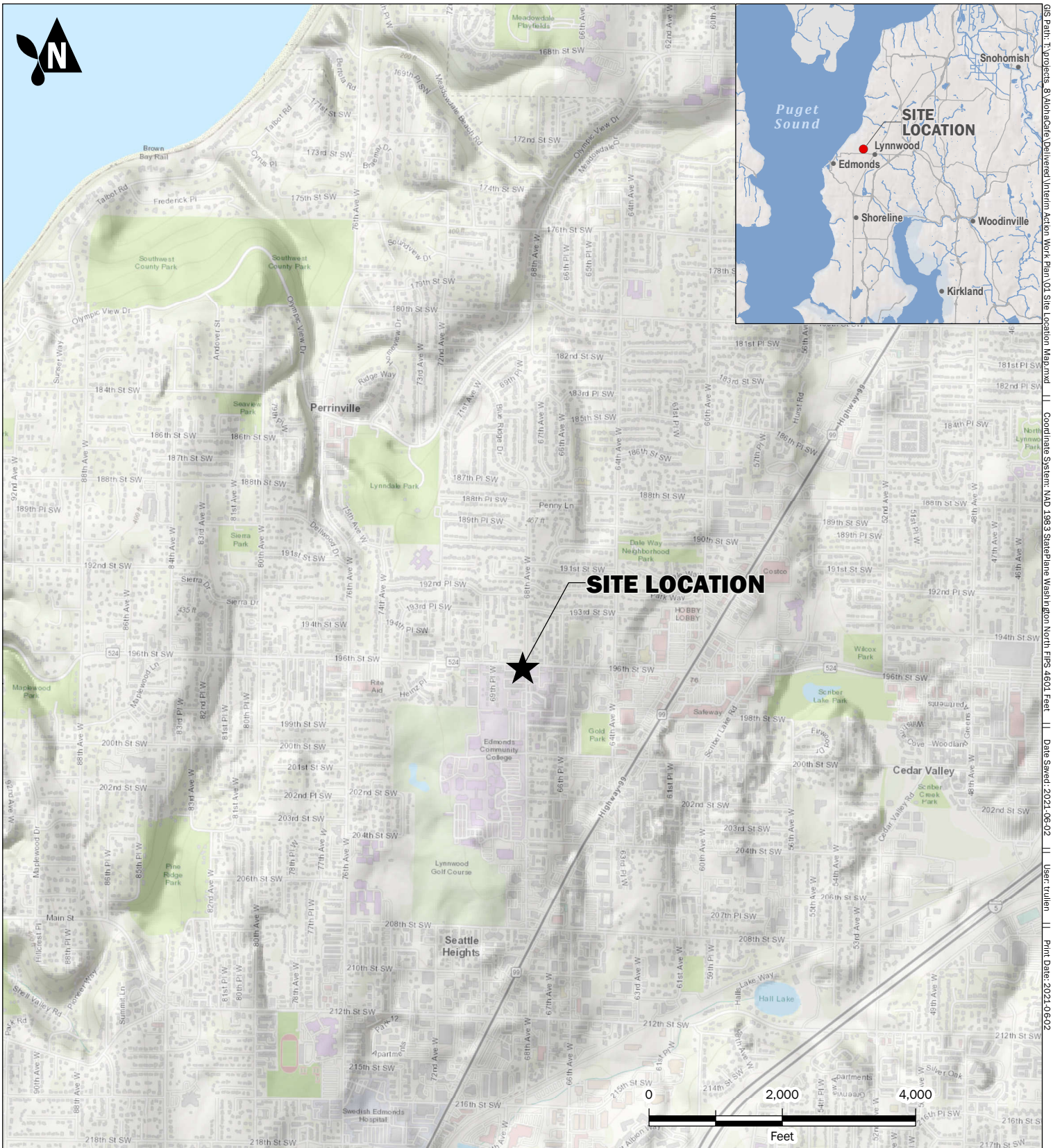
µg/m^3 = micrograms per cubic meter

-- = not applicable

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

FIGURES



Site Location Map

Ventilation Work Plan Texaco
Strickland Site
6808 196th Street SW
Lynnwood, WA

Aspect CONSULTING	JUN-2021	BY: WVG / TDR	FIGURE NO. 1
	PROJECT NO. 180357	REVISED BY: ---	

Basemap Layer Credits || Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

GIS Path: T:\projects_8\MohaCafe\Delivered\Interim Action Work Plan\01 Site Location Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 2021-06-02 || User: trullen || Print Date: 2021-06-02

Crawlspace Air Sampling Location
Indoor Air Sampling Location
Ambient Air Sampling Location
Chri-Mar Apartment Building
Property Boundary
Tax Parcel

N

0 20 40
Feet

November 2022 Ambient, Crawlspace, and Indoor Air Sampling Locations

Ventilation Work Plan
Texaco Strickland Site
6808 196th Street SW
Lynwood, WA

Aspect Consulting	DEC-2022	BY: WVG / TDR	FIGURE NO. 2
	PROJECT NO. 180357	REVISED BY: WEG/SBM/NLK	

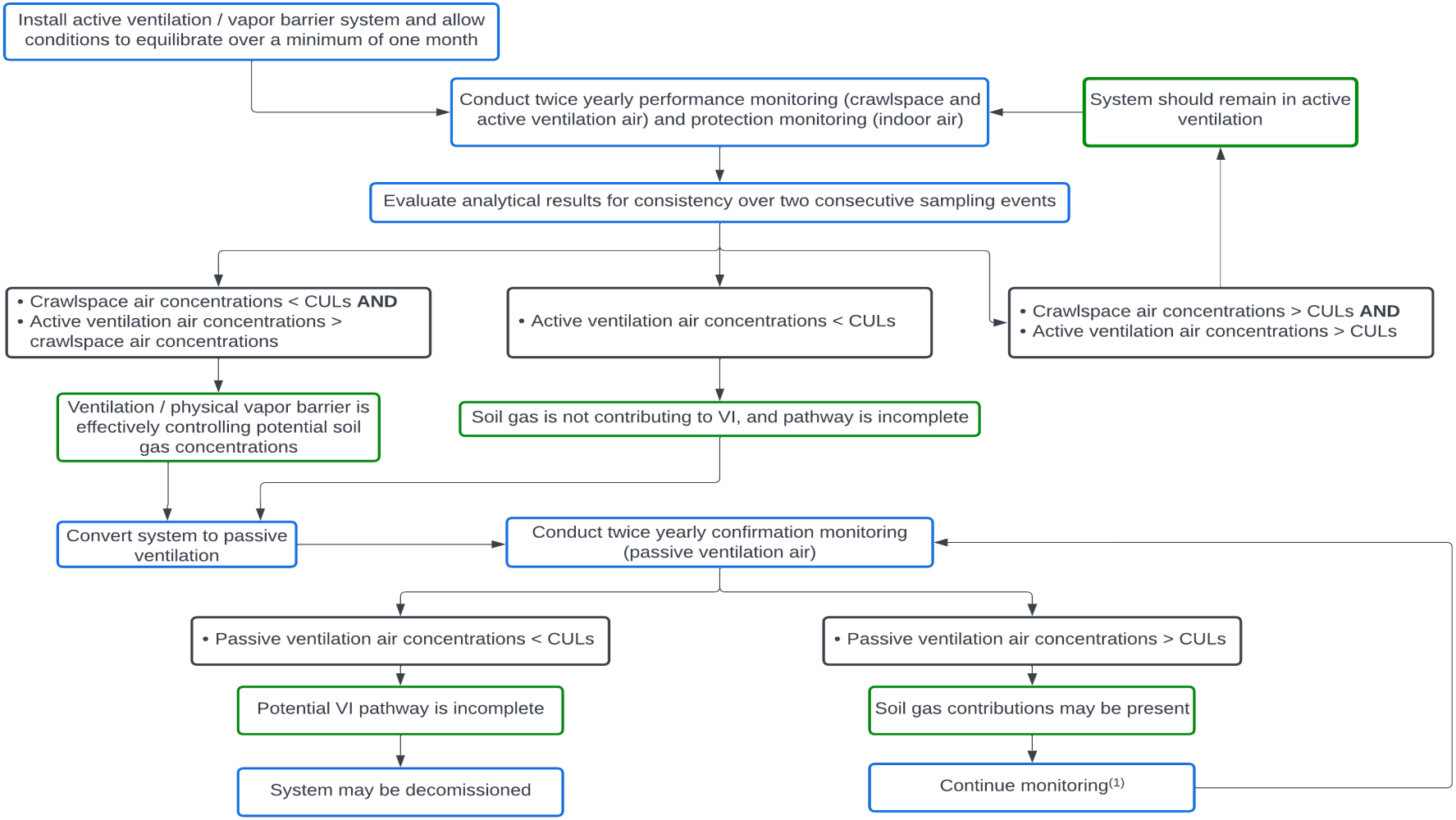
GIS Path: T:\projects_8\AshaCafe\Delivered\Ventilation Work Plan\02 Ambient Crawlspace Indoor Air Sampling Locations.mxd || Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet || Date Saved: 12/29/2022 || User: nkochie || Print Date: 12/29/2022

Proposed Crawlspace Ventilation Schematic

Ventilation Work Plan
Texaco Strickland Site
6808 196th Street SW
Lynwood, WA

Aspect Consulting	DEC-2022	BY: BMG / NLK	FIGURE NO. 3
	PROJECT NO. 180357	REVISED BY: ---	

GIS Path: T:\projects_8\AshaCafe\Delivered\Ventilation Work Plan\03 Proposed Crawlspace Ventilation Schematic.mxd || Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet || Date Saved: 12/29/2022 || User: nkochle || Print Date: 12/29/2022



Notes:
(1) - The monitoring and/or decomissioning plan may be updated in the future as part of the Site cleanup in documents such as the Cleanup Action Plan or Compliance Monitoring Reports
- Blue boxes indicate actions
- Black boxes indicate analytical results
- Green boxes indicate conclusions
- VI = vapor intrusion
- CULs = Model Toxics Control Act Method B indoor air cleanup levels

Compliance Monitoring Plan Flowchart

Ventilation Work Plan
Texaco Strickland Site
6808 196th Street SW
Lynwood, WA

Aspect CONSULTING	JAN-2023	BY: AJY / NLK	FIGURE NO. 4
	PROJECT NO. 180357	REV BY: ---	

GIS Path: T:\Templates\1117_Landscape.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 6/2/2014 || User: ecrumbaker || Print Date: 6/9/2014

APPENDIX A

Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 1, 2022

Andrew Yonkofski, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 17, 2022 from the Texaco Strickland 180357, F&BI 211255 project. There are 34 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data
ASP1201R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 17, 2022 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 211255 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
211255 -01	CS-125-111622
211255 -02	CS-127-111622
211255 -03	CS-129-111622
211255 -04	CS-131-111622
211255 -05	IA-125-1-111622
211255 -06	IA-125-2-111622
211255 -07	IA-127-1-111622
211255 -08	IA-127-2-111622
211255 -09	IA-129-1-111622
211255 -10	IA-129-2-111622
211255 -11	IA-131-1-111622
211255 -12	IA-FD-111622
211255 -13	AMB-1-111622
211255 -14	AMB-2-111622

Individually certified canisters were provided for TO-15 sampling.

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-125-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-01
Date Analyzed:	11/19/22	Data File:	111824.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	2,200
APH EC9-12 aliphatics	35
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-127-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-02
Date Analyzed:	11/19/22	Data File:	111823.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	85	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	750
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-129-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-03
Date Analyzed:	11/19/22	Data File:	111822.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	1,500
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-131-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-04
Date Analyzed:	11/19/22	Data File:	111821.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	360
APH EC9-12 aliphatics	37
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-125-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-05
Date Analyzed:	11/19/22	Data File:	111820.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	77
APH EC9-12 aliphatics	140
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-125-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-06
Date Analyzed:	11/19/22	Data File:	111819.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	85
APH EC9-12 aliphatics	130
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-127-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-07
Date Analyzed:	11/19/22	Data File:	111818.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	38
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-127-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-08
Date Analyzed:	11/19/22	Data File:	111817.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	41
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-129-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-09
Date Analyzed:	11/19/22	Data File:	111816.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	94
APH EC9-12 aliphatics	62
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-129-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-10
Date Analyzed:	11/19/22	Data File:	111815.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	76
APH EC9-12 aliphatics	26
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-131-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-11
Date Analyzed:	11/19/22	Data File:	111814.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	100
APH EC9-12 aliphatics	54
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-FD-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-12
Date Analyzed:	11/18/22	Data File:	111813.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	93
APH EC9-12 aliphatics	47
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-13
Date Analyzed:	11/18/22	Data File:	111812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-14
Date Analyzed:	11/18/22	Data File:	111811.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Collected:	Not Applicable	Lab ID:	02-2771 MB
Date Analyzed:	11/18/22	Data File:	111810.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-125-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-01
Date Analyzed:	11/19/22	Data File:	111824.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.76	0.24
Toluene	<19	<5
Ethylbenzene	0.90	0.21
m,p-Xylene	3.5	0.81
o-Xylene	1.2	0.27
Naphthalene	0.079 j	0.015 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-127-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-02
Date Analyzed:	11/19/22	Data File:	111823.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.63	0.20
Toluene	<19	<5
Ethylbenzene	0.55	0.13
m,p-Xylene	2.1	0.49
o-Xylene	0.73	0.17
Naphthalene	0.42	0.08

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-129-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-03
Date Analyzed:	11/19/22	Data File:	111822.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.71	0.22
Toluene	<19	<5
Ethylbenzene	0.60	0.14
m,p-Xylene	2.3	0.53
o-Xylene	0.80	0.18
Naphthalene	0.047 j	0.009 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-131-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-04
Date Analyzed:	11/19/22	Data File:	111821.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.62	0.19
Toluene	<19	<5
Ethylbenzene	0.59	0.14
m,p-Xylene	2.4	0.54
o-Xylene	0.81	0.19
Naphthalene	<0.047 j	<0.0089 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-125-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-05
Date Analyzed:	11/19/22	Data File:	111820.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.62	0.19
Toluene	<19	<5
Ethylbenzene	0.50	0.12
m,p-Xylene	1.5	0.34
o-Xylene	0.61	0.14
Naphthalene	0.12	0.022

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-125-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-06
Date Analyzed:	11/19/22	Data File:	111819.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.61	0.19
Toluene	<19	<5
Ethylbenzene	0.48	0.11
m,p-Xylene	1.4	0.33
o-Xylene	0.56	0.13
Naphthalene	0.14	0.026

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-127-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-07
Date Analyzed:	11/19/22	Data File:	111818.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.47	0.15
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.1	0.24
o-Xylene	0.46	0.10
Naphthalene	0.079	0.015 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-127-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-08
Date Analyzed:	11/19/22	Data File:	111817.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.46	0.14
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	0.97	0.22
o-Xylene	<0.43	<0.1
Naphthalene	0.079	0.015 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-129-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-09
Date Analyzed:	11/19/22	Data File:	111816.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.51	0.16
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.0	0.23
o-Xylene	<0.43	<0.1
Naphthalene	0.23	0.044

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-129-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-10
Date Analyzed:	11/19/22	Data File:	111815.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.53	0.17
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	0.89	0.20
o-Xylene	<0.43	<0.1
Naphthalene	0.13	0.025

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-131-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-11
Date Analyzed:	11/19/22	Data File:	111814.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.87	0.27
Toluene	<19	<5
Ethylbenzene	0.46	0.10
m,p-Xylene	1.4	0.33
o-Xylene	0.51	0.12
Naphthalene	0.24	0.046

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-FD-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-12
Date Analyzed:	11/18/22	Data File:	111813.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.88	0.28
Toluene	<19	<5
Ethylbenzene	0.46	0.11
m,p-Xylene	1.4	0.32
o-Xylene	0.51	0.12
Naphthalene	0.26	0.050

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-13
Date Analyzed:	11/18/22	Data File:	111812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.7	0.22
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.1	0.24
o-Xylene	<0.43	<0.1
Naphthalene	0.057 j	0.011 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-14
Date Analyzed:	11/18/22	Data File:	111811.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.69	0.21
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.1	0.24
o-Xylene	<0.43	<0.1
Naphthalene	<0.047 j	<0.0089 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Collected:	Not Applicable	Lab ID:	02-2771 MB
Date Analyzed:	11/18/22	Data File:	111810.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.047 j	<0.0089 j

Date of Report: 12/01/22
Date Received: 11/17/22
Project: Texaco Strickland 180357, F&BI 211255

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 211168-01 1/7.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	1,300	1,400	7
APH EC9-12 aliphatics	ug/m3	370	370	0
APH EC9-10 aromatics	ug/m3	<180	<180	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	92	70-130
APH EC9-12 aliphatics	ug/m3	67	115	70-130
APH EC9-10 aromatics	ug/m3	67	111	70-130

Date of Report: 12/01/22
Date Received: 11/17/22
Project: Texaco Strickland 180357, F&BI 211255

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 211168-01 1/7.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	<2.3	<2.3	nm
Toluene	ug/m3	<130	<130	nm
Ethylbenzene	ug/m3	8.1	8.1	0
m,p-Xylene	ug/m3	28	28	0
o-Xylene	ug/m3	9.6	9.7	1
Naphthalene	ug/m3	<1.9	<1.9	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	91	70-130
Toluene	ug/m3	51	92	70-130
Ethylbenzene	ug/m3	59	90	70-130
m,p-Xylene	ug/m3	120	90	70-130
o-Xylene	ug/m3	59	92	70-130
Naphthalene	ug/m3	71	70	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

211255

SAMPLE CHAIN OF CUSTODY

11/17/22

Report To Andrew YonKofski

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature)

PROJECT NAME & ADDRESS: Texaco Strickland

PO #: 180357

NOTES:

INVOICE TO

TURNAROUND TIME
☑ Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may

SAMPLE INFORMATION

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	ANALYSIS REQUESTED: TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
CS-125-111622	01	18566	15209	(IA) / SG	11/16/22	30	0940	6	0930		X		X			
CS-127-111622	02	20545 ~~15216~~	06602	(IA) / SG		30	0940	8	0930							
CS-129-111622	03	40708	05551	(IA) / SG		30	0940	2	0901							
CS-131-111622	04	18561	15211	(IA) / SG		30	0940	4	0901							
IA-125-1-111622	05	35331	15212	(IA) / SG		730	0955	8	0940							
IA-125-2-111622	06	37235	05556	(IA) / SG		30	8 LL 1000	6	0945							
IA-127-1-111622	07	20541	15218	(IA) / SG		730	1017	6	1007							
IA-127-2-111622	08	20551	15216	(IA) / SG		730	1018	7	1008							

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lillian Graham	Aspect	11/17/22	1140
Received by:				
Relinquished by:				
Received by:	ANH PHAN	FSB	11/17/22	11:40

Samples received at 19 °C

211255

SAMPLE CHAIN OF CUSTODY

11/17/22

Page # 2 of 2

Report To _____

Company _____

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (signature)	
PROJECT NAME & ADDRESS	PO #
NOTES:	INVOICE TO

TURNAROUND TIME
Standard
RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
Default:Clean following final report delivery
Hold (Fee may

SAMPLE INFORMATION

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	ANALYSIS REQUESTED: TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-129-1-111622	09	18564	15217	(IA) / SG	11/16/22	29	1029	6	1015		X		X			
IA-129-2-111622	10	37203	15208	(IA) / SG	↓	>30	1030	7	1017		↓		↓			
IA-131-1-111622	11	20555	05349	(IA) / SG		30	1042	6	1029							
IA-FD-111622	12	37214	07848	(IA) / SG		29	1042	5	1029							
AMB-1-111622	13	40703	07870	(IA) / SG		>30	1107	5	1053							
AMB-2-111622	14	40707	06605	(IA) / SG	↓	>30	1059	7	1048		↓		↓			
				IA / SG												
				IA / SG	↓											

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

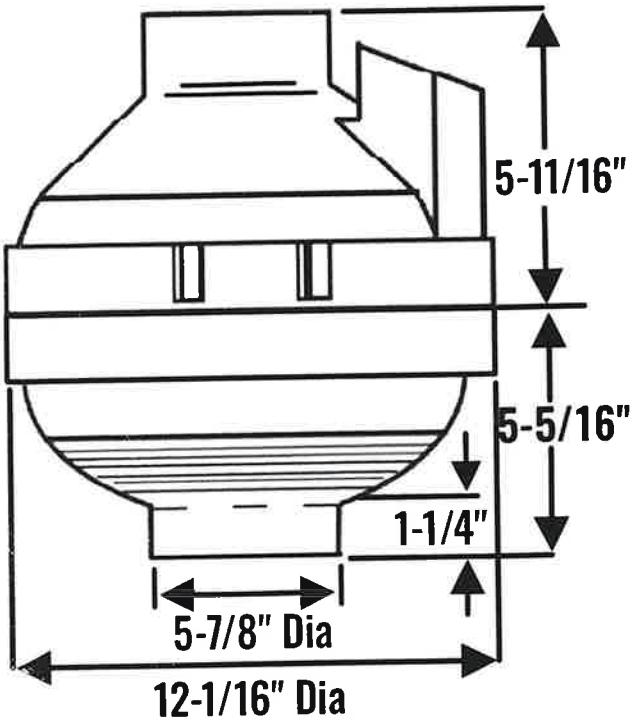
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lillian Graham	Aspect	11/17/22	1140
Received by:				
Relinquished by:				
Received by:	ANH PHAN	FSB	11/17/22	11:40

Samples received at 19 °C

APPENDIX B

AMG Legend Fan Specifications

Legend Extreme Tech Specs



Recommended for:

Structures varying from 1,500 to 4,000 sq. ft. Extremely compact or moist subslab, such as clay. Great for most large footprint homes or buildings, multiple suction points, and double stacking.

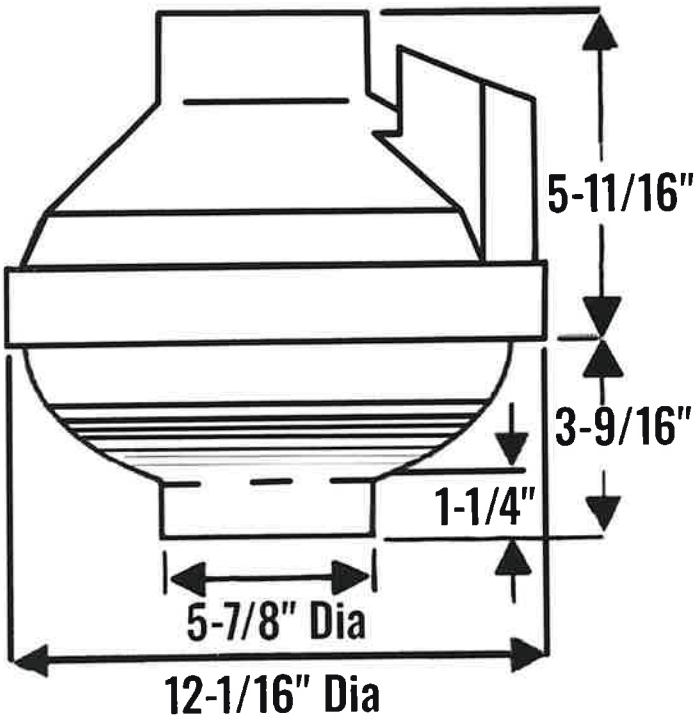
Performance Figures, CFM at Static Pressure in W.G.										
0"	0.5"	1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"	4.25"	4.5"
571	489	457	396	327	273	199	147	92	39	0

Max Flow	Max Pressure	Volts	Watts	Max Amps	Speed
571 CFM	4.5" w.g.	115V, 60 Hz	170 W	2.25	4180 RPM

Fits to 6" Fernco Couplers
Available in white only
Weight: 9.2 lbs

Festa Radon Technology
47A Progress Ave
Cranberry Township PA 16066
1-800-806-7866

Legend Tech Specs



Recommended for:

Structures varying from 2,000 to 5,000 sq. ft.
Porous subslab, such as gravel.
Great for most large footprint, newer built homes.

Performance Figures, CFM at Static Pressure in W.G.										
0"	0.25"	0.5"	0.75"	1.0"	1.25"	1.5"	1.75"	2.0"	2.25"	2.5"
345	310	287	264	242	215	176	136	77	25	6

Max Flow	Max Pressure	Volts	Watts	Max Amps	Speed
345 CFM	2.6" w.g.	115V, 60 Hz	140 W	1.23	2600 RPM

Fits to 6" Fernco Couplers
Weight: 9.2 lbs

Festa Radon Technologies
47A Progress Ave
Cranberry Township, PA 16066
1-800-806-7866