

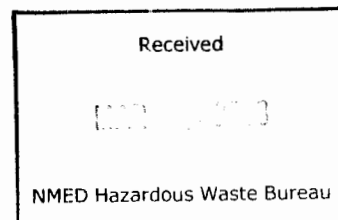


**DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)**

 **ENTERED**

24 February 2023

Colonel Jason F. Vattioni, USAF
Commander
377th Air Base Wing
2000 Wyoming Blvd SE
Kirtland AFB NM 87117



Mr. Rick Shean
Hazardous Waste Bureau (HWB) Chief
New Mexico Environment Department (NMED)
2905 Rodeo Park Drive East Building 1
Santa Fe NM 87505-6303

Dear Mr. Shean

Please find attached the Shallow Soil Vapor Monitoring Investigation Report, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111. This report details the activities performed under the work plan dated May 25, 2021 and approved by the NMED HWB on October 3, 2021. It describes the installation and sampling of eight shallow soil vapor wells and presents the data collected from the winter and summer 2022 sampling events.

If you have any questions or concerns, please contact Mr. Ryan Wortman at commercial line (505) 853-3484 or by email at ryan.wortman.3@us.af.mil.

Sincerely

VATTIONI.JASO Digitally signed by
VATTIONI.JASON.F.1170028640
N.F.1170028640 Date: 2023.02.24 11:00:31 -0700'

JASON F. VATTIONI, Colonel, USAF
Commander

Attachment:

Shallow Soil Vapor Monitoring Investigation Report, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111

cc:

NMED Resource Protection Division (Catechis), Letter/CD
NMED HWB (Shean, Andress), Hard Copy/2 CDs
NMED HWB (Cobrain, Wear), Electronic
NMED GWQB (Romero), Letter/CD
EPA Region 6 (King, McKinney), Letter/CD
AFCEC/CZ (Clark, Kottkamp, Segura, Wortman), Electronic
Public Info Repository, Admin. Record/Info. Repository Hard Copy/CD

KAFB5277



**KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO**

**SHALLOW SOIL VAPOR SAMPLING
INVESTIGATION REPORT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNITS ST-106/SS-111**

March 2023



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**KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO**

**SHALLOW SOIL VAPOR SAMPLING
INVESTIGATION REPORT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNITS ST-106/SS-111**

March 2023

Prepared for
U.S. Air Force
Kirtland Air Force Base
2000 Wyoming Blvd SE
Kirtland Air Force Base NM 87117

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1. REPORT DATE (08-11-2019) 02-03-2023		2. REPORT TYPE Final		3. DATES COVERED (From - To) 10-03-2021 to 02-03-2023
4. TITLE AND SUBTITLE Shallow Soil Vapor Sampling Investigation Report Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111 Kirtland Air Force Base, New Mexico			5a. CONTRACT NUMBER W912PP19P0014	
			5b. GRANT NUMBER	
			5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) HazAir, Inc			5d. PROJECT NUMBER	
			5e. TASK NUMBER	
			5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) HazAir, Inc 6565 Americas Pkwy, Suite 242 Albuquerque, New Mexico 87110			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Corps of Engineers–Albuquerque District 4101 Jefferson Plaza NE Albuquerque, New Mexico 87109-3435			10. SPONSOR/MONITOR'S ACRONYM(S)	
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT This Investigation Report is prepared for the U.S. Air Force for the purpose of describing the installation and sampling of shallow soil vapor wells associated with the Kirtland Air Force Base (AFB) Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111. This Report is part of a phased, step-out investigative approach to assess the current nature and extent of shallow soil vapor off-Base near Bullhead Memorial Park. The first phase, described in this Report, focuses on vapor sampling at locations most likely to have detectable vapor concentrations. The data will be used to confirm the conclusions presented in the Risk Assessment (KAFB, 2017a), as requested in the February 25, 2019, NMED letter (NMED, 2019).				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT ABSTRACT	18. NUMBER OF PAGES 83
a. REPORT UNCLASSIFIED	b. ABSTRACT UNCLASSIFIED	c. THIS PAGE UNCLASSIFIED		
				19b. TELEPHONE NUMBER (include area code) (505) 853-3484

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March 2023

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JASON F. VATTIONI, Colonel, USAF
Commander, 377th Air Base Wing

24 February 2023

Date

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PREFACE

This Investigation Report was prepared for the U.S. Air Force (USAF) for the purpose of evaluating shallow soil vapor sample data associated with the Kirtland Air Force Base (AFB) Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111. This work was performed under the USAF Installation Restoration Program, in accordance with the corrective action provisions set forth in Part 6 of the Hazardous Waste Treatment Facility Operating Permit (EPA ID No. NM9570024423) issued to Kirtland AFB (Resource Conservation and Recovery Act Permit), with the New Mexico Environment Department (NMED) serving as the lead regulatory agency.

The objective of this Report is to evaluate the nature and extent of shallow soil vapor north of Kirtland AFB. This document provides data for the first stage of a phased, step-out investigative approach to assess the current nature and extent of shallow soil vapor. This stage, first presented in the associated work plan and described herein, focuses on vapor sampling at locations most likely to have detectable vapor concentrations, such as those under impermeable surfaces or adjacent to known utility lines. Data will be used to confirm the conclusions presented in the Risk Assessment (KAFB, 2017a), as requested in the 25 February 2019 NMED letter (NMED, 2019).

This report was prepared in accordance with applicable federal, state, and local laws and regulations, including the New Mexico Hazardous Waste Act, New Mexico Statutes Annotated 1978, New Mexico Hazardous Waste Management Regulations, and the Resource Conservation and Recovery Act.

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ACRONYMS AND ABBREVIATIONS

%	percent
AFB	Air Force Base
ALS	ALS Global Environmental Laboratory
ASTM	American Society for Testing and Materials
BFF	Bulk Fuels Facility
bgs	below ground surface
CFR	Code of Federal Regulations
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
COA	City of Albuquerque
COPC	contaminants of potential concern
DPT	direct push technology
EDB	ethylene dibromide (also known as 1,2-dibromoethane)
EPA	U.S. Environmental Protection Agency
ft	foot/feet
GWM	groundwater monitoring
H ₂ S	hydrogen sulfide
HC	hydrocarbons
HWB	Hazardous Waste Bureau
ID	identification
IDW	investigation derived waste
in.	inch
LOQ	limit of quantification
MDL	minimum detection limit
mL	milliliters
MRL	method reporting limit
NMED	New Mexico Environment Department
No.	number
O ₂	oxygen
OSWER	Office of Solid Waste and Emergency Response

ACRONYMS AND ABBREVIATIONS (CONCLUDED)

PID	photoionization detector
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RA	Risk Assessment
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RLS	Registered Land Surveyor
Site	Bulk Fuels Facility site
SVE	soil vapor extraction
SVM	soil vapor monitoring
SVMP	soil vapor monitoring point
SVMW	soil vapor monitoring well
SWMU	Solid Waste Management Unit
TPH	Total Petroleum Hydrocarbon
UFP-QAPP	Uniform Federal Policy for Quality Assurance Project Plans
ug/m ³	micrograms per cubic meter
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USCS	Unified Soil Classification System
VA Hospital	Raymond G. Murphy Veterans Affairs Medical Center
VI	vapor intrusion
VISL	vapor intrusion screening level
VOC	volatile organic compound

EXECUTIVE SUMMARY

1
2 This Investigation Report is part of a phased, step-out investigative approach to assess the
3 current nature and extent of shallow soil vapor off base. This report describes the first phase of
4 the approach and summarizes the data from installation and sampling activities for eight shallow
5 soil vapor monitoring locations that are positioned in the most likely areas to have detectable
6 vapor concentrations. This data is being collected in response to a New Mexico Environment
7 Department (NMED) letter dated February 25, 2019 (NMED, 2019). In this letter, NMED
8 requested additional shallow soil vapor data to confirm the Risk Assessment (RA) conclusion
9 that there is no vapor intrusion risk to off-site receptors. On February 01, 2021, the Air Force
10 presented a conceptual approach for the implementation of additional shallow soil vapor
11 monitoring points north of Kirtland Air Force Base (AFB). During an April 20, 2021 meeting
12 between NMED and the Air Force, NMED requested that Kirtland AFB submit a formal work
13 plan outlining the February 01, 2021 conceptual approach, and that work plan was approved on
14 October 3, 2021 (NMED, 2021).

15 In an effort to better understand the potential impacts of utility corridors on shallow soil vapor
16 contamination, the major utility corridor located on base along Randolph Ave was chosen as the
17 prime location for investigating soil vapor contamination. The investigation focused on an area
18 near the northwestern portion of Kirtland AFB along the northern installation boundary, to
19 include four soil vapor monitoring wells (SVMWs) within the boundary along Randolph Ave,
20 three SVMWs north of the base boundary within Bullhead Memorial Park, and one SVMW
21 located on property owned by the Raymond G. Murphy Veterans Affairs Medical Center. Each
22 well was specifically placed based on the best likelihood of discovering shallow soil vapor
23 contamination and was installed with three shallow soil vapor monitoring points at depths of 5,
24 10, and 15 feet below ground surface. Sampling was performed in winter 2022 and summer 2022
25 for volatile organic compounds by methods TO-15 SIM, TO-15, and TO-3.

26 During the winter and summer sampling events no contaminants of potential concern (COPC)
27 exceeded their respective vapor intrusion screening level (VISL). Non-COPCs also did not
28 exceed their respective VISLs with the exception of acrolein, for which the non-carcinogenic
29 VISL is $0.695 \mu\text{g}/\text{m}^3$, and which is not considered a site COPC as it is a constituent typically
30 found in commercially available biocides, herbicides and pesticides. Therefore, these detections
31 are not related to the fuel release and likely related to historical biocide application.

32 An EPA Stage 3 validation was performed on 100% of the analytical data to verify that the
33 laboratory complied with the project Uniform Federal Policy for Quality Assurance Project Plans
34 (UFP-QAPP) and method requirements, and 100% of the data collected is usable and should be
35 considered representative of subsurface conditions at each of the eight wells. No off base shallow
36 soil vapor concerns were identified as a part of this investigation.

37 According to the October 3, 2021 work plan approval letter (NMED, 2021), if data collected
38 during the two sampling events identified any “soil vapor concentrations that indicate additional
39 sampling is needed” (i.e., one or more COPCs exceeded their respective VISL), Kirtland AFB
40 would work with NMED to develop a second work plan “to extend sampling from the point of
41 detection outward.” Based on the data collected, additional well installation and analysis step

1 outs are unnecessary. However, it is recommended to incorporate these eight new wells into the
2 existing Kirtland AFB soil vapor monitoring network that is sampled on a semiannual basis.

3 Additionally, the data collected from these shallow soil vapor monitoring points (SVMPs) should
4 be used to confirm the conclusion of the 2017 RA (KAFB, 2017) in an updated RA. The NMED
5 previously approved the conceptual exposure models and associated risk calculations for both
6 groundwater and soil media for the Site. Subsequently, in a letter dated Feb 25, 2019, NMED
7 required “The Permittee shall send a work plan to NMED no later than May 30, 2019 that
8 proposes to collect shallow soil vapor samples to evaluate for the presence of benzene, ethylene
9 dibromide (EDB), and other volatile organic compound (VOCs) (if present) in residential area
10 north of Ridgecrest, and on campus of VA Hospital” (NMED, 2019). The results of this
11 investigation indicate all COPCs are below NMED VISLs from the SVMP locations that are
12 most likely to have impacted soil vapor associated with the BFF site. Based on these data, the
13 U.S. Air Force (USAF) has concluded there is no feasible exposure scenario in which Site
14 related contaminants can impact vapor intrusion receptors associated with residential areas north
15 of Ridgecrest or on the Veterans Affairs (VA) Hospital campus. The USAF is requesting
16 NMED’s concurrence to use the data associated with these shallow SVMPs to update the
17 conceptual exposure model and risk calculations associated with the soil vapor media in an
18 updated RA.

1. INTRODUCTION

This Investigation Report was prepared for the U.S. Air Force (USAF) for the purpose of documenting field activities and reporting data collected in accordance with the approved work plan (KAFB, 2021a). The wells discussed in this report are associated with the Kirtland Air Force Base (AFB) Bulk Fuels Facility (BFF), Solid Waste Management Units (SWMUs) ST-106/SS-111. This work was performed under the USAF Installation Restoration Program, in accordance with the corrective action provisions set forth in Part 6 of the Hazardous Waste Treatment Facility Operating Permit (U.S. Environmental Protection Agency [EPA] identification [ID] Number [No.] NM9570024423) issued to Kirtland AFB (Resource Conservation and Recovery Act [RCRA] Permit), with the New Mexico Environment Department (NMED) serving as the lead regulatory agency.

1.1. Overview

The objective of this investigation report is to satisfy the NMED's request in its February 25, 2019 letter "Bulk Fuels Facility Spill; Solid Waste Management Unit ST-106/SS-111 Kirtland Air Force Base HWB-KAFB-19-MISC" to confirm the conclusion reached in the July 15, 2017 Risk Assessment (RA) Report that there are no vapor intrusion risks to offsite receptors located north of Kirtland AFB (KAFB, 2017).

This investigation report presents the results of the phased step-out investigative approach to assess the nature and extent of shallow soil vapor contamination north of the base perimeter. This report describes the installation of eight new on and off base SVMWs in locations most likely to have detectable vapor concentrations and sampling of those wells in the winter and summer 2022. All activities were conducted in accordance with the work plan approved by the NMED on October 3, 2021 (NMED, 2021).

1.2. Report Organization

This report is formatted in accordance with the requirements of Part 6.2.4.3 of the RCRA Permit and divided into the following sections:

- **Section 1**—Presents an introduction to the investigation, an overview of the project, and the organization of this report.
- **Section 2**—Provides background information on the Bulk Fuels Facility site (Site).
- **Section 3**— Refers to the regulatory criteria.
- **Section 4**— Presents the scope of activities conducted for this project.
- **Section 5**— Presents the results of the investigation.
- **Section 6**—Site Contamination.
- **Section 7**—Describes any deviations from the work plan.

- 1 • **Section 8**—Outlines the conclusions and recommendations.

2 Associated appendices are provided at the end of this report as follows:

- 3
- 4 **Appendix A:** Regulatory Correspondence
- 5
- 6 **Appendix B:** Well Development and Drilling Field Logs
- 7
- 8 **Appendix C:** Drilling Investigation Derived Waste Analytical Results
- 9
- 10 **Appendix D:** Shallow Soil Vapor Monitoring Point Survey
- 11
- 12 **Appendix E:** Sampling Field Logs
- 13
- 14 **Appendix F:** Winter 2022 Analytical Results
- 15
- 16 **Appendix G:** Winter 2022 Data Quality Evaluation Report
- 17
- 18 **Appendix H:** Summer 2022 Analytical Results
- 19
- 20 **Appendix I:** Summer 2022 Data Quality Evaluation Report
- 21
- 22 **Appendix J:** Native Analytical Data and Purge Calculations (provided digitally in a
- 23 searchable, sortable format)

2. BACKGROUND INFORMATION

2.1. Site Description

Kirtland AFB is located in Bernalillo County in central New Mexico, southeast of and adjacent to the City of Albuquerque (COA) and the Albuquerque International Sunport (**Figure 2-1**). The approximate area of the base is 52,287 acres. The Bulk Fuels Facility site (Site) location is in the northwestern portion of Kirtland AFB along the northern base boundary, located just north of the BFF fuel release.

There are currently no residential or industrial buildings in the off base area proximal to the Site; the majority of the area is comprised of Bullhead Memorial Park. Zia Park, the large open area to the northeast between Bullhead Memorial Park and the residential areas, is owned by the U.S. Air Force (USAF) and the Air National Guard. The Raymond G. Murphy Veterans Affairs Medical Center (VA Hospital) is located to the northwest of Bullhead Memorial Park.

2.2. Site History

Kirtland AFB discovered a fuel release in November 1999 at the BFF's Former Fuel Offloading Rack and determined through environmental investigations that subsurface fuel releases occurred over a period of decades. The fuel traveled downward through the subsurface until it encountered the water table. In the vadose zone, the fuel constituents volatilized and contributed to the soil vapor contamination in the spaces between sand grains, creating a soil vapor plume. Soil vapor monitoring (SVM) of the contamination has been performed at the Site since 2001.

Kirtland AFB responded to the subsurface contamination by performing interim measures including soil removal actions and soil vapor extraction (SVE) in the vicinity of the original release (KAFB, 2017). Soil vapor extraction systems were in operation for approximately thirteen years (2003-2015). Interim measures continue to be implemented to date at the Site to address the mobile dissolved-phase ethylene dibromide (EDB, also referred to as 1,2-dibromomethane) groundwater plume (KAFB, 2021b).

2.2.1 Shallow Soil Vapor Investigations Chronology

- The USAF submitted the Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Unit ST-106/SS-111 on May 20, 2019, Document ID # KAFB4794.
- The USAF received disapproval notice from NMED dated May 26th, 2020, for the Work Plan for Shallow Soil Vapor Sampling BFF SWMU ST-106/SS-111, Kirtland AFB New Mexico.
- On November 10th, 2020, the USAF conducted a presentation regarding the Work Plan for Shallow Soil Vapor Sampling, with base level utility information included.
- In December 2020, the USAF provided the initial round of information regarding on and off base utilities, size and depths in the area of interest.

- 1 • In January 2021, the Air Force provided the final round of information regarding the on
2 and off base utilities, size and depths in the area of interest as requested by NMED.
- 3 • On January 5th, 2021, the USAF conducted a presentation on shallow soil vapor friction
4 point with updated on and off base existing utility information, and U.S. Environmental
5 Protection Agency (EPA) regulatory guidance information showing incomplete pathways
6 at the BFF. This presentation included additional information indicating vapor intrusion
7 screening levels (VISLs) are conceptually inaccurate for use at the BFF.
- 8 • On January 15th, 2021, during a meeting with Secretary Kenney and Mr. Mark Correll,
9 USAF personnel were directed to develop a 'Results Based Investigative Approach' to
10 collect additional shallow soil vapor data near existing utilities and into Bullhead
11 Memorial Park. The USAF assets indicated that the conceptual approach could be pulled
12 together in two weeks-soft deliverable date. NMED technical staff were directed to
13 provide a response in two weeks following receipt of the conceptual approach.
- 14 • The USAF submitted the draft Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels
15 Facility, Solid Waste Management Unit ST-106/SS-111 on May 25, 2021.
- 16 • In July 2021, NMED announced the investigation phase was nearing an end for the
17 Kirtland AFB groundwater treatment system. NMED noted that this shallow soil vapor
18 sampling investigation was one of the last investigatory activities needed to close the
19 investigation phase.
- 20 • The USAF received a modification request to the soil vapor sampling methods on August
21 31, 2021.
- 22 • The USAF received NMED approval without modifications on October 3, 2021 for the
23 Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste
24 Management Unit ST-106/SS-111 dated May 25, 2021.

26 **2.3. Site Geology**

27 As discussed in detail in the RCRA Facility Investigation (RFI) Phase I, the BFF site is located
28 within the Albuquerque Basin of the Rio Grande Rift, which has been filled with sediments
29 identified as Quaternary alluvium and Santa Fe Group. In general, the Site is underlain by
30 approximately 200 feet (ft) of relatively fine-grained alluvial fan deposits originating from the
31 Sandia Mountains to the east, with some alternating and laterally discontinuous coarse-grained
32 zones. Underlying these easterly derived alluvial fan deposits are relatively coarse-grained
33 Ancestral Rio Grande deposits, with a few laterally discontinuous fine-grained zones (AECOM,
34 2015).

35 The groundwater impacted by the BFF site is located within an unconfined aquifer in the Upper
36 Santa Fe Group, which is composed of deposits of the ancestral Rio Grande fluvial system that
37 co-mingle with alluvial deposits towards the basin margins (Hawley, 1996). As of the second
38 quarter of 2021, depth to groundwater ranged from approximately 438 to 484 ft below ground
39 surface (bgs) across the groundwater monitoring (GWM) network (KAFB, 2021c). Soils

1 encountered during advancement of soil vapor monitoring wells (SVMWs) 16-23 consisted
2 largely of well graded fine sands and silts with occasional gravels, caliche nodules and clay
3 nodules included in the sand and silt matrix. These sediments are characteristic of reworked
4 Ancestral Rio Grande and Santa Fe Group Sediments prevalent in the region.

5 **2.4. Existing SVM Network**

6 The Kirtland AFB BFF project has a robust soil vapor monitoring network that has been in
7 operation for two decades. Fifty-nine SVM locations (consisting of 300 soil vapor monitoring
8 points [SVMPs]) were installed to measure soil vapor concentrations on a semi-annual basis at
9 the site (**Figure 2-2**). As part of this monitoring well network, Kirtland AFB BFF has off base
10 vapor monitoring points at the VA Hospital and in Bullhead Memorial Park screened from 15 ft
11 bgs to 450 ft bgs across six different horizons (35 vapor monitoring points). The SVMPs in
12 Bullhead Memorial Park are directly between the release point on Kirtland AFB and the Siesta
13 Hills community.

14 **2.5. Conceptual Vapor Intrusion Pathway**

15 As the EPA states in the Office of Solid Waste and Emergency Response (OSWER) *Technical*
16 *Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Source*
17 *to Indoor Air* (EPA, 2015), the vapor intrusion pathway is referred to as “complete” for a
18 building or collection of buildings when five conditions are met under current conditions: (1) a
19 subsurface source of vapor-forming chemicals is present underneath or near the building(s); (2)
20 vapors form and have a route along which to migrate (be transported) toward the building(s); (3)
21 the building(s) is (or are) susceptible to soil gas entry, which means openings exist for the vapors
22 to enter the building(s), and driving forces exist to draw the vapors from the subsurface into the
23 building(s); (4) one or more vapor-forming chemicals comprising the subsurface vapor source(s)
24 is (or are) present in the indoor environment; and (5) the building(s) is (or are) occupied by one
25 or more individuals when the vapor-forming chemical(s) is (or are) present indoors. If any one of
26 the criteria above is not satisfied the vapor intrusion pathway is considered incomplete. As a
27 result, in accordance with Section 6.3.2 of the EPA OSWER Technical Guide (EPA, 2015),
28 information about subsurface vapor migration, combined with other lines of evidence, can
29 support the RA determinations that the vapor intrusion pathway is incomplete under current
30 conditions.

31 As indicated in EPA OSWER Technical Guide (EPA, 2015), soil gas concentrations generally
32 decrease with increasing distance from a subsurface vapor source, and eventually at some
33 distance the concentrations become negligible. The distance at which soil gas concentrations
34 become negligible is a function of the strength and dimensions of the vapor source, the type of
35 vapor source, the soil types and layering in the vadose zone, the presence of physical barriers
36 (e.g., asphalt covers or ice) at the ground surface, and the presence of preferential pathways (e.g.,
37 utility corridors).

38 Shallow soil vapor can potentially migrate along utility corridors because most utilities use
39 coarse grain backfill to protect the underground infrastructure. Since the shallow subsurface at
40 the Site is composed of laterally discontinuous alluvial fan deposits, it is possible that soil vapor
41 could migrate further distances laterally along utility corridors than through the natural deposits.
42 To better understand the potential impacts of utility corridors on shallow soil vapor

1 contamination, NMED submitted a request for information to Kirtland AFB asking for the
2 locations and depths of utilities proximal to the Site (NMED, 2020). Kirtland AFB provided the
3 utilities information to NMED as documented in the January 28, 2021 letter (KAFB, 2021d).

4 **2.6. Utility Evaluation**

5 As shown in **Figure 2-3**, the major utility corridor near the Site is located on base along
6 Randolph Ave. All utilities identified proximal to the Site are less than 12 ft bgs. There is one
7 natural gas utility line that leaves the base near the Site and travels north to the VA Hospital.
8 This line is 1.5 to 6 inches (in.) in diameter and approximately 18 to 24 in. deep.

3. REGULATORY CRITERIA

The NMED is the regulating agency for the investigation being conducted at Kirtland AFB BFF SWMUs ST-106/SS-111, and the RCRA Permit (NMED, 2010) is the primary guidance. This permit is enforced by the NMED's Hazardous Waste Bureau, which is authorized to administer RCRA by the EPA. Site-specific investigations are conducted in accordance with approved work plans from the NMED. The site-specific work plan (KAFB, 2021a) was approved by the NMED on October 3, 2021 (NMED, 2021).

The investigation being conducted at Kirtland AFB BFF SWMUs ST-106/SS-111 followed the requirements listed in the RCRA permit. The guidance followed includes:

- Documentation of field activities (Work Plan Section 7.1)
- Decontamination of direct-push technology (DPT) drilling tools and equipment (Work Plan Section 7.3)
- Field instruments calibration (Work Plan Section 8.1)
- Soil vapor sample collection, labeling, and shipping (Work Plan Section 8.3)
- All DPT soil coring related investigation derived waste (IDW) (Work Plan Section 7.4)
- Soil vapor monitoring point survey (Work Plan Section 7.7)
- All DPT drilling activities (Work Plan Section 7)
- Underground utility location survey (RCRA Permit Section 6.5.10)
- Soil vapor monitoring point installation (Work Plan Section 7)
- Quality control sampling (Work Plan Sections 8.1 and 8.2)
- Sediment logging and documentation by a qualified geologist (Work Plan Section 7.1)
- Soil vapor monitoring (Work Plan Section 8.1)
- Laboratory analyses (Work Plan Section 8.3)
- Investigation reporting requirements (Work Plan Section 8.4)

The following screening levels and regulatory guidance are used for the investigation being conducted at SWMUs ST-106/SS-111:

- 1 • New Mexico Environment Department - Risk Assessment Guidance for Site
2 Investigations and Remediation, Volume I Soil Screening Guidance for Human Health
3 Risk Assessments, June 2022
- 4 • U.S. Environmental Protection Agency – OSWER Technical Guide for Assessing and
5 Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air,
6 Office of Solid Waste and Emergency Response, OSWER Publication 9200.2-154, June
7 2015

8 The NMED has directed Kirtland AFB to compare detected soil vapor concentrations to a
9 regulatory standard to assess the presence and location of contaminants of concern. All
10 regulatory correspondence can be found in **Appendix A**. The NMED's *Risk Assessment*
11 *Guidance for Site Investigations and Remediation* (2022) VISLs must be used as a first-tier
12 screening assessment. The NMED VISLs were calculated utilizing the EPA default attenuation
13 factors, which are based on conservative assumptions and empirical data. These VISLs are
14 intended to be screened against soil vapor samples collected from below buildings or occupied
15 structures (sub slab samples) where vapors can migrate through cracks or other foundation
16 deficiencies and cause an exposure to the human occupants. There are currently no residential or
17 industrial buildings in the investigation area and as a result, no sub slab soil vapor samples were
18 collected as part of this investigation. However, as directed, Kirtland AFB is currently screening
19 the shallowest SVMPs at SWMUs ST-106/SS-111 with screen intervals ranging from 10 to 30 ft
20 bgs against the NMED VISLs. This depth interval is referred to nominally as the 25-ft interval.
21 As a result, using the NMED VISLs as a first-tier screening level for soil vapor concentrations at
22 the 25 ft horizon provides the most representative measurement nearest to the 10-ft depth used
23 by the NMED for VISLs. All analytes evaluated used cancer based residential VISLs except for
24 acetone and acrolein. These analytes do not have a cancer based indoor air screening value, so
25 the noncancer residential VISLs were used as a first-tier screening level.

26 On August 31, 2021, the USAF received a letter regarding Soil Vapor Sampling Program
27 Modifications. Subsequently, the Shallow Soil Vapor Work Plan for this investigation was
28 approved by NMED on October 3, 2021. In the approval letter, NMED stated “The Permittee is
29 directed to proceed with implementation of the shallow soil vapor sampling as described in the
30 Work Plan.” In accordance with the RCRA Permit Section 1.38, “Upon the Department's written
31 approval, all submittals and associated schedules shall become enforceable under this Permit in
32 accordance with the terms of the Department's written approval, and such documents as
33 approved, shall control over any contrary or conflicting requirements of this Permit.” Both the
34 winter and summer sampling events were done in accordance with the approved 2021 work plan.
35 Official correspondence can be seen in **Appendix A**. Sampling of the eight new wells met
36 several criteria:

- 37 • A minimum of three well volumes were purged prior to sample collection from each
38 SVMP;
 - 39 ○ Purge volumes took into account the volume of the annular space as well as the
40 volume of the tubing extending above the filter pack, including that which was
41 above ground;

- 1 • Soil vapor samples were only collected after field instrument readings stabilized;
- 2 • Flow rates during purging and sampling did not exceed 200 to 500 mL/min; and
- 3 • Sample collection time for a six liter canister was consistent with EPA recommendations.

4. SCOPE OF ACTIVITIES

The scope of work consists of the first stage of a phased, step-out investigative approach to assess the extent of shallow soil vapor off base by conducting focused vapor sampling at selected locations that are most likely to have detectable vapor concentrations.

To determine any potential vapor migration, eight permanent SVMWs were installed (**Figure 4-1**). Semiannual samples were collected from three horizons at 5, 10, and 15 ft bgs. Four of the eight SVMWs were installed on base along the northern base boundary proximal to existing utilities to determine if these utility corridors were acting as preferential vapor flow pathways. The other four SVMWs were installed off base in the parking lots of Bullhead Memorial Park and the VA Hospital to determine if these impermeable surface coverings were acting as vapor accumulation areas.

Sampling was completed in February-March and August 2022. Using 6-liter SUMMA® canisters, analysis for volatile organic compounds (VOCs) was completed for each sample. Samples were analyzed for VOCs by method TO-15, TO-15 SIM, and Total Petroleum Hydrocarbon (TPH) as Gasoline by method TO-3. The target analyte list was based on vapor monitoring conducted between 2001 and 2015. The contaminants of potential concern (COPC) are listed in **Table 4-1** along with the laboratory detection limits and the residential vapor intrusion (VI) screening limits as included in NMED's *Risk Assessment Guidance for Site Investigations and Remediation*, June 2022 (NMED, 2022a). **Table 4-1** shows the limit of quantification (LOQ) and minimum detection limit (MDL) values for samples collected in 6-liter canisters.

In addition to shallow soil vapor sampling, ambient blanks were also taken at the start of each sampling day. Ambient blank Summa® canisters were prepared using a flow controller set to 12 hours and placed adjacent to the work site throughout each day of sampling. Before any samples were taken, the valve on the ambient blank was opened in the morning and would only be shut when moved between sites. At the end of the day, the valve was permanently closed, and the pressure and time were recorded. The intent of the ambient blanks was to ascertain if any other environmental contamination was present when sampling and determine if there was any intrusion to the sampling train that could elevate/invalidate sample results.

5. FIELD INVESTIGATION RESULTS

Eight shallow SVMWs (SVMW-16 through SVMW-23) were installed consistent with the May 2021 Kirtland Air Force Base Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111 (KAFB, 2021a), and the applicable permits issued to the driller by the City of Albuquerque and Department of Veterans Affairs. Well installation was performed by Earthworx, Inc. of Belen, New Mexico under the direct supervision of HazAir, Inc. personnel. Four SVMWs were installed on base along the northern boundary of Kirtland AFB along Randolph Rd., and four others were installed within the parking lots at Bullhead Memorial Park and the VA Hospital. The location of two southern SVMWs (SVMW-16 and SVMW-18) were shifted several feet from the locations originally marked for utility clearance due to safety considerations to prevent striking utilities. Sampling of the new SVMWs was conducted in the winter (February 28, 2022 to March 2, 2022) and summer (August 8-10, 2022) following installation.

5.1. Surface Conditions

Off base locations were paved parking lots and on base locations were unimproved soil. Surface conditions were relatively flat with minimal to no drainage, and no occupied buildings were within 200 ft of any well location. As this investigation primarily dealt with subsurface conditions, no other surficial features were noted.

5.2. Exploratory Drilling

5.2.1 Location and Depth of Shallow SVMWs

A detailed listing of each SVMP location, sample depths, analytical methods, and rationale for placement is provided in **Table 5-1**. The shallow SVMW locations were selected to provide information to support two data quality objectives:

1. Provide data to determine whether on base existing underground utilities were acting as preferential vapor flow pathways and/or off base asphalt paved parking lots were acting as vapor accumulation areas.
2. Provide additional data points to supplement the quantitative evaluation of potential VI risk to off base receptors performed in 2017 (KAFB, 2017).

The SVMW locations were carefully selected to avoid areas of heavy vehicular traffic for the following reasons:

- Potential sources of benzene, toluene, ethylbenzene, and xylenes may exist in shallow soils beneath roadways that could interfere with the objectives of this sampling event.
- Interference from vehicular traffic on roadways during the sampling may impact vapor concentrations in shallow soils under certain barometric conditions and potentially result in false positives.

Four SVM locations, SVMW-16 through SVMW-19, were installed just south of the boundary between Kirtland AFB and Bullhead Memorial Park. These locations were selected to monitor

1 contaminant migration along the northern base boundary and to evaluate utility corridors in the
2 area. SVMW-16 is located adjacent to the only utility running off base. Three other SVMWs,
3 SVMW-20 through SVMW-22, were installed in the parking lot of Bullhead Memorial Park.
4 Paved areas were chosen because vapors may accumulate under low permeability surfaces such
5 as asphalt or concrete. One location, SVMW-23, was installed in the VA Hospital overflow
6 parking lot in the open space adjacent to a sewer main. This location is also located at the
7 historical leading edge of the groundwater benzene plume. Locations that evaluate underground
8 utilities were placed as close to the utility corridor as safety precautions allow.

9 Utilities clearance personnel marked all utilities along the corridor prior to placing the wells in
10 accordance with the approved work plan (KAFB, 2021a). Each well was located as close to
11 adjacent utilities as safety would allow. A non-invasive surface utility clearance was then
12 performed for SVMW-16 through SVMW-19 prior to drilling to ensure each well location was
13 clear.

14 The NMED *Risk Assessment Guidance for Site Investigations and Remediation* sets forth
15 maximum acceptable VISLs for volatile compounds in soils that are less than 10 ft below grade
16 for comparison and evaluation of risk to human and ecological receptors at land surface (NMED,
17 2022a). The shallow SVMP locations provide data at 5, 10, and 15 ft bgs for comparison to
18 NMED residential VISLs.

19 **5.2.2 Drilling of Shallow SVMWs**

20 Between February 1, 2022 and February 9, 2022, the following activities were completed:

- 21 • Eight direct-push borings advanced to pre-determined depths
- 22 • Borehole logging by a geologist at each location
- 23 • Three discrete soil vapor monitoring probes installed in each boring
- 24 • Surface completion of well vaults and sampling ports at ground surface

25 The SVMWs were drilled using DPT, using a Geoprobe 6620DT low-impact direct-push drilling
26 rig. The drilling rig was rubber tracked and designed to traverse variable terrain with minimal
27 surface disturbance. The 6620DT employed a hydraulic ram and percussion hammer to advance
28 hollow steel tubing to collect core samples in acetate core tubes and to allow vapor points,
29 tubing, gravel packs, and annular seals to be deployed to precise depths. The drilling rig was also
30 equipped with a 6 in. hollow-stem auger that would only be used to advance borings if direct-
31 push methods met refusal during advancement. All drilling was conducted in accordance with
32 the approved work plan (KAFB, 2021a).

33 The DPT drilling was performed in two penetration passes. The initial penetration was made to
34 total depth (15 ft.) using 2.25 in. outside diameter x 60 in. length rods to capture 1.5 in. diameter
35 soil cores in 48 in. long acetate tubes. The second pass was made to total depth where possible,
36 using 3.25 in. outside diameter x 60 in. length rods to widen the hole, increase sidewall stability,
37 and allow deployment of soil vapor probes to the proposed depths and construction of multiple
38 ports, tubing strings, gravel packs and annular seals in the borings when needed. See Section
39 5.4.2 for specific information regarding depths of the second pass. During advancement of the
40 DPT tools, cores were collected in the lead rod in acetate core tubes on 5 ft. intervals and brought

1 to land surface. Acetate core tubes were cut longitudinally and inspected visually by the
2 geologist on site and for lithologic logging. Lithologic logging was completed in accordance
3 with the approved work plan (KAFB, 2021a).

4 During drilling, each boring was fully described by a geologist on a boring log form in
5 accordance with American Society for Testing and Materials (ASTM) International D5434 and
6 included the following, when applicable:

- 7 1. Identification number and location of each boring
- 8 2. A general description of the drilling equipment used, including rod size, bit type, pump
9 type, rig manufacturer, and model
- 10 3. Date and time of start and completion of boring
- 11 4. Name of contractor, driller, and drill site geologist
- 12 5. Size and length of casing (soil vapor port and tubing type) used in each borehole
- 13 6. Soil classification in accordance with the Unified Soil Classification System (USCS), and
14 soil color, consistency, soil components, soil moisture, stratification, degree of
15 induration, grain size and size distribution, and odor logged
- 16 7. Mineralogical content of the core (for correlation)
- 17 8. Observations during drilling, such as bit chatter, rod binding and rod drops
- 18 9. Observations of visible contamination for each sample

19 Well as-built records and lithologic logs prepared by a geologist from Parkhill are provided in
20 **Appendix B**.

21 **5.2.3 Drilling Decontamination**

22 The objective of field decontamination is to remove contaminants of concern from the drilling
23 tools to minimize risks of cross contamination and negative impact on study objectives. All DPT
24 drilling tools and equipment that were used to penetrate below grade were decontaminated prior
25 to arriving on site and decontaminated after use at each SVMP location. All decontamination
26 procedures were performed in accordance with the approved work plan (KAFB, 2021a).

27 Decontamination of drilling tools took place in a designated decontamination area specific to the
28 work activity and approved by Kirtland AFB (**Figure 5-1**). All IDW was managed as
29 summarized in Section 5.2.4 and in accordance with Kirtland AFB waste containment and
30 disposal procedures. Specifications for decontamination materials are as follows:

- 31 1. Use a standard brand of phosphate-free laboratory detergent, preferably either liquid
32 Liquinox[®] or powder Alconox[®].
- 33 2. Use tap water from a municipal water treatment system. Detergent and tap water will
34 remove the gross contamination from the sampling equipment.
- 35 3. Use deionized water for the final rinse of sampling equipment that has direct contact with
36 the sampling medium.

5.2.4 Drilling Investigation Derived Waste

The DPT drilling method used for SVMP installations did not penetrate saturated soils and did not require liquids to advance. The DPT soil coring produced small amounts of IDW, about 3.5 gallons of soil core per monitoring point and 15 lineal ft of acetate core barrel per monitoring point. Derived soil was captured and contained in 55-gallon drums and secured in a holding yard located on base (**Figure 5-1**). All water used to rinse the drill was also captured and stored in the holding yard within a 5-gallon bucket. The IDW was screened for fuel components and toxic metals using totals analysis. The IDW results were considered non-hazardous; results can be found in **Appendix C** and a photo of the waste in the holding yard can be seen in **Figure 5-2**. All IDW was handled in accordance with the approved work plan (KAFB, 2021a).

5.3. Subsurface Conditions

During advancement of the probes and subsequent installation of the vapor monitoring wells, quaternary alluvial deposits consisting of reworked surficial upper tertiary Santa Fe group and piedmont slope facies of the Sierra Ladrones formation were encountered. Santa Fe Group and surficial alluvial fan and/or ancestral Rio Grande sediments in the area consist mainly of poorly indurated, interbedded fine-grained sands, silts, and clays, with minor coarse sands, calcic clay nodules, cobbles exhibiting caliche coatings, and caliche interbeds.

Soils and sediments encountered during installation of the vapor monitoring well borings were brown to reddish-brown fine sands and silts with interbedded caliche and increasing occurrence of poorly sorted coarse sands below 10 ft in depth. Shallow soil vapor monitoring wells 16, 17, 18 and 19 were installed in areas previously inspected for underground utilities using air knife methods and re-formed, making the initial 5 to 6 ft of sediments very loose, dry, and well graded. Undisturbed sediments below 6 ft exhibited expected characteristics of alluvial deposits (sand and silt with occasional clay and caliche interbeds). Shallow soil vapor monitoring wells 20, 21, 22, and 23 were installed in areas paved for vehicle use, creating hard-packed reworked alluvial sediments beneath the engineered road base (i.e., 12 in. and deeper) and exhibited similar characteristics to those from SVMW-16, 17, 18 and 19.

5.4. Monitoring Well Construction

The SVMP completions were constructed in accordance with the design in the approved work plan (KAFB, 2021a). Permanent SVMPs were completed to accommodate additional future sampling events. All SVMP installations were equipped with permanent traffic rated vault and concrete slab surface completions.

Details of the shallow soil vapor well completions are shown in **Figure 5-3**.

5.4.1 Well Construction Materials

Shallow soil vapor monitoring points materials include:

- Soil Vapor Probes - Geoprobe 6 in. AT86 Series double woven stainless wire screen
- Well Tubing - 1/4 in. Teflon™ tubing

- 1 • Pervious Annular Fills - 10/20 grade silica sand (opposite wire screen probes)
- 2 • Annular Seals - 3/8 in. granular bentonite, placed, hydrated (between screened zones)
- 3 • Tubing Vault Seals - SWAGELOK quick connect sample connection fittings, or
- 4 equivalent (part no. SS-QC4-B-2PM)
- 5 • Well Vault - 12 in. x 12 in. cast iron traffic rated vault with tamper proof security bolts
- 6 and waterproof seals on the vault covers and bolts
- 7 • Vault Drain Tube - 1/2 in. schedule 40 polyvinyl chloride (PVC) pipe, set through vault
- 8 concrete to natural materials below
- 9 • Concrete Surface Pad - Portland ready concrete mix meeting ASTM C387

10 5.4.2 Well Construction

11 Components for SVMP well construction are identified in Section 5.4.1 above. Installation
12 methods used to ensure the proper positioning of vapor probes, annular gravel packs and annular
13 seals are detailed below and illustrated in **Figure 5-3**. Well probe and annular fill placements, as
14 well as surface completions were performed as follows:

- 15 • Direct-Push Probe Advancement – Borings were advanced using a Geoprobe 6620DT
16 DPT low-impact rubber-tracked direct-push rig equipped with a hydraulic ram and
17 percussion hammer. The DPT methods consisted of an initial penetration to a depth of 15
18 ft using 2.25 in. outside diameter x 60 in. length rods to capture 1.5 in. diameter soil cores
19 in 48 in. long acetate tubes. At locations with loose non-cohesive soil, a second pass was
20 made to total depth using 3.25 in. outside diameter x 60 in. length rods, to widen the hole
21 and allow deployment of soil vapor probes to the proposed depths and construction of
22 multiple ports, tubing strings, gravel packs and annular seals in the borings. For every 5-
23 feet of advancement, the rod was withdrawn, and the collected core was transferred by
24 the driller to the onsite geologist from Parkhill for logging and characterization of soil
25 class, texture, lithology, sorting and color of the penetrated sediments. Immediately upon
26 removal from the borehole, core samples were also subjected to photoionization detector
27 (PID) testing prior to any characterization to detect the presence and concentration of any
28 organic vapors potentially present in the subsurface. The PID results were recorded on
29 field logs and are provided on the lithologic logs (**Appendix B**). Following initial borings
30 and core sample collection/logging, wells SVMW-16, 19, 20, 21, 22, and 23 were
31 widened using a 3.25-inch probe rod equipped with a solid drive point due to potential
32 borehole instability encountered during the initial DPT push and concerns about borehole
33 stability during monitoring point construction. The wider-diameter rod/point provided
34 additional soil compaction in the borehole walls to reduce collapse into the open hole
35 during probe construction.
- 36
- 37 • Shallow Soil Vapor Monitoring Point Installation – All drilling and probe installation
38 were conducted in accordance with the approved work plan (KAFB, 2021a). Permanent
39 SVMWs were completed to accommodate future sampling events. Monitoring points

1 were constructed of new ¼ in. OD Teflon™ tubing, 6 in. AT86 Series double-woven
2 stainless wire screen installed at 5 ft, 10 ft and 15 ft bgs, and depth-labeled quick-connect
3 shutoff valves at ground surface.
4

- 5 • Vapor Probe Placement – Prior to installing the vapor probes at prescribed depths in each
6 well, the boring depth was verified using a steel tape to tag the bottom of the hole to
7 confirm that the hole depth matched the well design depth intended for that probe. This
8 depth was recorded on the well log sheet. The probe screen was then attached to an
9 appropriate length of Teflon™ tubing and lowered to the bottom of the hole (i.e., 15 ft
10 bgs) at the placement depth verified by additional hole depth sounding. Approximately 5
11 ft of excess Teflon™ tubing was left on each vapor probe to allow the excess tubing to be
12 bundled and positioned away from the hole during annular fill and surface completion
13 operations. Depth-labeled quick connect sample connection valves were affixed to each
14 Teflon™ tubing run to prohibit entry of foreign media into the tubing during well
15 construction operations and between future sampling events. This procedure was repeated
16 for the 10 ft bgs and 5 ft bgs probe screen placement during well construction activities.
17
- 18 • Pervious Annular Fill Placement – After placing a vapor probe to its prescribed depth
19 10/20 silica sand was incrementally added to the borehole by hand from land surface until
20 the annular space surrounding the vapor probe was flooded with sand. The level of the
21 annular sand fill was verified by continuous sounding with the steel tape as incremental
22 filling progressed to ensure that over or underfilling or bridging did not occur. This
23 process was repeated for each probe depth at each well location. Thickness and exact
24 positioning of sand packs were determined during borehole advancement and core
25 sample logging/characterization. Strata comprised of finer grains and/or layers exhibiting
26 increased lithification (e.g., “tighter” strata) were anticipated to restrict vapor
27 transmission. Vapor probes positioned in these types of conditions were provided a
28 thicker sand pack to allow for sufficient flow from the surrounding formation and
29 minimize the potential for short-circuiting between sampling intervals during purging and
30 sampling. Therefore, target depths which exhibited a greater proportion of clays, silts,
31 and caliche deposits were allowed a greater sand pack thickness (up to 18 in.), and those
32 target depths containing higher proportions of sand, gravel and cobbles retained the
33 original 6-ft-thick sand pack. **Appendix B** provides the well-specific as-built
34 construction schematics for all SVMWs.
- 35 • Annular Seal Placement – After the pervious annular fill around each 15 ft bgs and 10 ft
36 bgs probe screens were placed and verified, #8 mesh granular bentonite (Benseal®) was
37 placed by hand from land surface until the annulus above the probe/sand interval was
38 filled to the bottom of the next probe/sand interval. For the shallowest probe in each well
39 (i.e., 5 ft bgs), the hole above this sand pack interval was filled with 3/8-inch granular
40 bentonite chips (Holeplug®) to approximately 2 in. below the projected base of the well
41 vault on the completed installation. Annular seal materials were continuously sounded
42 with the steel tape to ensure that bridging or overfilling did not occur. During placement
43 of granular bentonite, potable water was added by hand in 2-3 ft lifts such that the
44 bentonite was hydrated to form an annular seal between probe intervals and between the
45 upper probe and land surface.

- 1 • Well Vault and Concrete Surface Slab Placement – To accommodate finished concrete
2 pads and traffic rated well vaults, prior to the installation of the probes (i.e., Teflon™
3 tubing and annular fills) at each well location, the asphalt driving surfaces (SVMW-20,
4 21, 22, 23) or unimproved dirt (SVMW-16, 17, 18, 19) were sawed and/or excavated
5 around the well location to a depth of 6 in. and width of approximately 4 ft x 4 ft. Wells
6 constructed in asphalt-paved locations utilized the cut edge of asphalt pavement as a
7 concrete form, and for wells constructed in unimproved ground locations, a square
8 concrete form constructed of 2 in. x 6 in. lumber was placed in the excavation and
9 centered on the well boring such that the top of the form was roughly level to adjacent
10 grade. The 12 in. well vault was installed around the well boring such that its upper ring
11 surface was approximately 0.5-1 in. higher than the concrete form or edge of asphalt
12 pavement. Ready mix concrete was prepared and flooded inside the form around the well
13 vault until an adequate volume of concrete had been placed to the top of the form/asphalt
14 and to the upper surface of the well vault. A drain tube consisting of an 8 in. length of 1/2
15 in. diameter PVC tubing was then placed inside the well vault and pushed into the soil
16 until its upper terminus was approximately 5 in. above the bottom of the well vault. The
17 well vault was then flooded with concrete until it nearly topped the PVC tube. The
18 Teflon™ tubing for each vapor probe with affixed depth-labeled quick connect sample
19 connection fittings were coiled and placed into the well vault, the well vault cover
20 installed, and security bolts fastened. The concrete slab was floated such that a smooth
21 surface sloping radially outward from the upper well vault ring to the concrete
22 form/asphalt was formed. Finally, the concrete slab was broom finished.

23 Photos of the drilling and installation process can be found in **Figure 5-4** through **Figure 5-7**.

24 **5.4.3 Post-Construction Survey**

25 On February 23, 2022, each SVMW was surveyed by High Mesa Consulting Group,
26 Albuquerque NM, a Registered Land Surveyor (RLS) in accordance with the approved work
27 plan (KAFB, 2021a) and 12.8.2 New Mexico Administrative Code. The surveys established
28 northings, eastings, and elevations within 0.01 ft accuracy at all shallow soil vapor monitoring
29 point locations (both protective vault lids and top of concrete at protective vault), referenced as
30 follows:

- 31 1. New Mexico State Plane Coordinate System, Central Zone, North American Datum of
32 1983
- 33 2. North American Vertical Datum 1988

34 A tabular summary of the XYZ coordinates for each monitoring point, as well as a map showing
35 the locations of the monitoring points and bearing the RLS seal can be found in **Appendix D**.

36 **5.5. Groundwater Conditions**

37 No groundwater was encountered during this investigation.

38 **5.6. Surface Water Conditions**

39 No surface water was encountered during this investigation.

1 **5.7. Subsurface Air and Soil Moisture Conditions**

2 Please refer to Sections 6.2 and 6.5 for subsurface screening and sampling.

3 **5.8. Materials Testing Results**

4 No materials testing was required during this investigation.

5 **5.9. Pilot Testing Results**

6 No pilot testing was required during this investigation.

6. SITE CONTAMINATION

This section describes the results for the semiannual shallow soil vapor sampling during February-March and August 2022 at Kirtland AFB. This semiannual shallow soil vapor sampling was conducted to characterize the lateral extent of the off base shallow soil vapor contamination.

6.1. Soil, Rock, and Sediment Sampling

No soil, rock, or sediment sampling occurred as part of this investigation.

6.2. Sample Field Screening Results

During drilling of the Kirtland AFB vapor wells, the extracted cores were analyzed with a PID immediately upon removal from the acetate sleeves for detectable hydrogen sulfide (H₂S), carbon monoxide (CO), methane (CH₄), VOCs, oxygen (O₂), and carbon dioxide (CO₂). As seen in Appendix B, detections by the PID were non-detect for methane and VOCs for all cores.

6.3. Soil, Rock, and Sediment Sampling Chemical Analytical Results

No soil, rock, or sediment sampling occurred as part of this investigation.

6.4. Subsurface Vapor Sampling

6.4.1 Shallow SVM COPCs

Contaminants of potential concern for this investigation were chosen based on previous work performed at Kirtland AFB that identified fuel related analytes that have historically been detected at the site. These COPCs are summarized in the Kirtland AFB *Risk Assessment, Bulk Fuels Facility Release, Solid Waste Management Unit ST-106/ST-111* report dated July 2017 (KAFB, 2017). The VOCs listed in this report are the primary targets of this investigation and are shown in **Table 4-1**.

Project COPCs represent only a portion of the suite of compounds the analytical methods chosen for this investigation can detect (TO-15 SIM, TO-15, and TO-3). To assist in subsequent efforts the full analyte list is being reported for this investigation.

6.4.2 Shallow SVMP Sampling

Winter sampling was conducted from February 28, 2022 to March 2, 2022 and summer sampling was conducted August 8-10, 2022. Shallow soil vapor sampling was conducted a minimum of 14 days after each SVMW was installed to allow perturbed soil vapor conditions from monitoring well installation to return to ambient conditions. Shallow soil vapor samples were collected without the influence of induced airflow by sealing sample ports to atmospheric air. The SVMPs were sealed when not in use to ensure they would not be able to off gas soil vapor or allow infiltration of the atmosphere. Shallow soil vapor monitoring was performed in accordance with the approved work plan (KAFB, 2021a).

Prior to beginning sampling each day, field instruments were calibrated for ionizable petroleum volatile hydrocarbons (HC), O₂, CH₄, and CO₂ against calibration standards of known concentrations in premixed gas cylinders. Calibration gases include 100 parts per million isobutylene for volatile hydrocarbons, and CH₄ 50 percent (%), CO₂ 35%, and O₂ 0%.

1 At the middle of each workday, a calibration check was performed on each instrument to
2 determine whether any of the parameters drifted since the morning calibration. If the results were
3 outside of 5% of the calibration gas standards, then the instrument would be recalibrated prior to
4 additional purging and sampling. All equipment calibration was performed in accordance with
5 the approved work plan (KAFB, 2021a). Calibration field sheets can be found in **Appendix E**.

6 Prior to purging, static vapor pressures were measured in each shallow soil vapor port with
7 magnehelic gauges. Monitoring point purging, field data recording and SUMMA® canister
8 sample collection were completed in accordance with the parameters and estimated schedules
9 shown on **Figure 6-1**. During the purge process, field measurements were recorded every three
10 minutes (with the first reading taking place within 30 seconds of the purge start). Each SVMP
11 was purged of their respective (minimum) three well volumes before final field measurements
12 were recorded and samples were collected. Static air pressure readings (in inches of water) were
13 measured using a manometer and recorded on purge logs for pre-purging and post-purging
14 conditions of each well to ensure stability prior to sampling.

15 The sampling train included connections to allow collection of vapor streams during monitoring
16 point purging for testing of volatile and fixed gases using field instruments, as well as for
17 collection of SUMMA® canister samples at the conclusion of monitoring point purging. The
18 field gas detector's pump was equipped with a check valve to prevent backflow through the
19 pump during non-operation. The sampling train was also equipped with a three-way valve above
20 the SUMMA® canister to ensure the sample only collected from the well side of the sample
21 train. An isolation valve positioned between the vacuum pump/field sensors and the SUMMA®
22 canister was utilized as a secondary isolation point during sample collection and opened during
23 purging to allow for monitoring of purge vapors. The three-way valve and the isolation valve
24 ensured that vapor taken into the SUMMA® canister did not flow backwards through the field
25 sensors. All Teflon™ tubing and connections upstream from the isolation valve were new, single-
26 use disposable for each individual port at each monitoring point.

27 The sampling train used (shown in **Figure 6-1**) consisted of new Teflon™ tubing, new hose barb
28 t-connections, and a new three-way valve positioned between the SUMMA® canister and the
29 field gas sensors. The tubing assembly allowed for pressure isolation to the sample container that
30 prevented atmospheric air from entering the sample container. Teflon™ tubing and t-connectors
31 upstream of the isolation valve were disposed of upon completion of sampling at each
32 monitoring point. Gas field instrumentation was completely purged with atmospheric air after
33 sampling each shallow soil vapor monitoring port.

34 Shallow soil vapor point purging and SUMMA® canister sample collection methodology was as
35 follows:

- 36 1. Connect the Teflon™ tubing to the monitoring point port, the SUMMA® canister, the
37 isolation valve, and the field gas as shown in **Figure 6-1**.
- 38 2. Read static vacuum/pressures on the magnehelic gauges in the vapor port that is being
39 sampled, as well as the other two vapor ports, and record the values.
- 40 3. Ensure that the isolation valve is in the open position prior to initiating purging.

- 1 4. Turn on the field gas detector's pump, verify proper operation by monitoring detector's
2 exhaust flow and inline flowmeter/regulator (See **Figure 6-1**).
- 3 5. Start timing the purge cycle. Based upon the calculated volume of the well and
4 sampling train (i.e., 15 ft x 1/4 in. diameter plus the annular space volume installed in
5 the well for the sampling level, see **Appendix J** for these calculations) and the flow rate
6 of the field gas detector (500 milliliters [mL] per minute for the winter sampling event
7 and 450 mL per minute for the summer sampling event), the time required to fully purge
8 three volumes of the tubing and annular space varied according to calculated values
9 shown in **Appendix B** and **Table 6-1**. During purging, the reading on the in-line
10 magnehelic gauge was also noted for use in Step 7 to ensure representative flow during
11 sampling.
- 12 6. Measure and record the O₂, CO₂, and photoionization detector readings during purging
13 to ensure that a stable formation-representative soil vapor stream was being produced
14 prior to vapor sample collection in the SUMMA® canister.
- 15 7. Close the isolation valve between the SUMMA® canister and the detectors and turn off
16 the detector's pump. Turn the three-way valve for sample collection and open the
17 SUMMA® canister. Allow the soil vapor stream to enter the SUMMA® canister for
18 near the same flow rate as the well was purged (i.e., 500 mL per minute and 450 mL per
19 minute) as indicated by the installed in-line magnehelic gauge (**Figure 6-1**). Continue
20 filling the SUMMA® canister until the magnehelic gauge reading begins to approach
21 zero, indicating the vacuum inside the SUMMA® in nearing ambient pressure, and
22 therefore, a filled canister.
- 23 8. Prior to completing sampling, close the valve on the SUMMA® canister, connect a
24 vacuum gauge, and check and record the final vacuum/pressure in the SUMMA®
25 canister. Ensure that the SUMMA® canister has fully filled and that there is minimal
26 residual vacuum in the canister or sample train.
- 27 9. Close the valve on the SUMMA® canister tightly to ensure sample integrity and
28 remove the vacuum gauge.
- 29 10. Ship SUMMA® canisters to the specified laboratory and analyze the samples for the
30 analytical methods listed in Section 6.4.1.

31 **6.4.3 Ambient Blank Sampling**

32 In addition to shallow soil vapor sampling, ambient blanks were also taken at the start of each
33 sampling day. Ambient blank Summa® canisters were prepared using a flow controller set to 12
34 hours and placed adjacent to the work site throughout each day of sampling. Before any samples
35 were taken, the valve on the ambient blank was opened in the morning and would only be shut
36 when moved between sites. At the end of the day, the valve was permanently closed, and the
37 pressure and time were recorded. The intent of the ambient blanks was to ascertain if any other
38 environmental contamination was present when sampling and determine if there was any
39 intrusion to the sampling train that could elevate/invalidate sample results.

40 **6.4.4 Decontamination**

41 The objective of field decontamination is to remove contaminants of concern from the sampling
42 apparatus to minimize risks of cross contamination and negative impact on study objectives.
43 Shallow soil vapor sampling equipment consisted of single use disposable Teflon™ tubing and
44 dedicated SVMP single use hose barbs and flow control valves. All tubing, barbs, and valves

1 were disposed of after sampling a given SVMP; therefore, no decontamination of sampling
2 equipment was necessary.

3 **6.5. Subsurface Vapor Field Screening Results**

4 During purging, influent vapor streams were screened for composition to ensure that vapors had
5 been fully evacuated from the monitoring points, tubing, and annular sand packs and that
6 formation-representative samples were collected for laboratory analysis. Influent purge vapor
7 streams were field screened for total ionizable volatile HC, O₂, and CH₄ using a RKI Instruments
8 GX6000 gas monitor equipped with an 11.7 electron-volt ionizer lamp. Carbon dioxide, O₂, and
9 CH₄ were measured using a Landtec GEM™2000 gas detector with a dual beam infrared
10 absorption sensor. All parameters were recorded in field logs, which can be found in
11 **Appendix E**.

12 **6.5.1 Winter Field Monitoring Results**

13 Sampling occurred between February 28, 2022 and March 2, 2022. Concentrations of O₂ were
14 normal, ranging from 18.6% to 21.9%. Concentrations of CH₄ were 0%, and purge times ranged
15 from 6 minutes to 18 minutes. The field measurements are located in **Table 6-2**, and the winter
16 field logs can be found in **Appendix E**.

17 **6.5.2 Summer Field Monitoring Results**

18 Sampling occurred between August 8, 2022, and August 10, 2022. Concentrations of O₂ were
19 normal, ranging from 16.4% to 19.6%. Concentrations of CH₄ were 0%, and purge times ranged
20 from 6 minutes to 21 minutes. The field measurements are located in **Table 6-3**, and the August
21 field logs can be found in **Appendix E**.

22 **6.6. Air and Subsurface Vapor Laboratory Analytical Results**

23 **6.6.1 Winter Analytical Data Results**

24 Vapor samples were collected between February 28, 2022 and March 2, 2022 and analyzed for
25 VOCs using EPA Method TO-15 SIM, TO-15, and TO-3. The results of the winter sampling
26 event are shown in **Tables 6-4 to 6-11** and are summarized below.

27 **6.6.1.2 COPC Analytical Results**

28 During the winter sampling event, there were no COPCs that exceeded the project screening
29 levels. Winter analytical results can be found in **Appendix F**. The data quality evaluation report
30 for the winter sampling event can be found in **Appendix G** and discussed in more detail in
31 Section 6.6.3.

32 **6.6.1.3 Non-COPC Analytical Results**

33 One analyte exceeded the associated NMED VISL during the summer sampling event: acrolein.
34 The sample from one SVMP (SVMW-18-5) exceeded the VISL with a maximum detection of
35 2.3 µg/m³. The screening VISL used for acrolein was the Residential Noncancer value.
36 Exceedances of non-COPCs can be found in **Table 6-12**.

6.6.2 Summer Analytical Data Results

Vapor samples were collected between August 8, 2022, and August 10, 2022 and analyzed for VOCs using EPA Method TO-15 SIM, TO-15, and TO-3. The results of the summer sampling event are shown in **Tables 6-13 to 6-20** and are summarized below.

6.6.2.1 COPC Analytical Results

During the summer sampling event, there were no COPCs that exceeded the project screening levels. Summer analytical results can be found in **Appendix H**. The data quality evaluation report for the summer sampling event can be found in **Appendix I** and discussed in more detail in Section 6.6.3.

6.6.2.2 Non-COPC Analytical Results

One analyte exceeded the associated NMED VISL during the summer sampling event: acrolein. Samples from 15 SVMPs (including at least one SVMP from each of the eight SVMWs) exceeded the VISL with a maximum detection of $2.7 \mu\text{g}/\text{m}^3$. The screening VISL used for acrolein was the Residential Noncancer value. Exceedances of non-COPCs can be found in **Table 6-21**.

6.6.3 Quality Assurance/Quality Control (QA/QC) Samples

Field quality control samples were taken in accordance with the approved work plan (KAFB, 2021a). Three blind field duplicate samples were taken during the sampling event to identify potential sampling or laboratory error or contamination. A duplicate was taken at each depth interval – 5ft, 10 ft, and 15 ft. An RPD (relative percent difference) of 50% was selected for the field duplicates to be consistent with the other 59 SVM locations in the Kirtland AFB BFF soil vapor monitoring network. There were 37 data flags in the winter sampling event and 47 data flags in the summer sampling event. The results are reportable, and a more detailed discussion can be found in **Appendices G and I**. All native analytical data is presented in **Appendix J**.

A time-weighted atmospheric sample was taken for each day SVMP sampling was conducted to determine if potential interference from outside sources such as vehicular exhaust, runoff, or asphalt may affect the sampling results. Atmospheric samples were analyzed using the same methods the native samples were analyzed for. No results indicated intrusion of the sampling train was likely. See Section 7.1 for a deviation regarding the atmospheric samples taken during the winter sampling event.

6.6.4 Laboratory Analysis

Analytical services were provided by ALS Global Environmental Laboratory (ALS) located in Simi Valley, California. ALS laboratory is accredited under the Department of Defense (DOD) Environmental Laboratory Accreditation Program (ELAP). All samples submitted to ALS were handled and analyzed in accordance with the approved work plan (KAFB, 2021a).

7. DEVIATIONS FROM THE WORK PLAN

This section describes any deviations from the work plan and discusses how they may (or may not) impact the investigation.

7.1. Atmospheric Sampling

A time-weighted atmospheric sample was taken for each day SVMP sampling was conducted to determine if potential interference from outside sources such as vehicular exhaust, runoff, or asphalt may affect the sampling results. During the winter sampling event there was a deviation from the work plan regarding the atmospheric samples; they were erroneously analyzed for ASTM D1946 instead of the intended analyses of VOCs via TO-15 SIM, TO-15, and TO-3. This was corrected during the summer sampling event, and there was no indication the sampling train was compromised. As the same type of sampling train was used in both sampling events, this deviation does not impact the validity of the analytical results gathered for the winter sampling event.

7.2. Vapor Intrusion Screening Levels

Since the work plan was drafted and approved in mid to late 2021, there have been several updates to the NMED *Risk Assessment Guidance for Site Investigations and Remediation* and the corresponding table of VISLs (Table A-4 in the guidance document). With each update, VISLs for COPCs and non-COPCs were evaluated to ensure the most up-to-date values were used. While none of the COPCs VISLs changed from the work plan, several non-COPC values (which were not originally listed in the work plan) were updated accordingly. All analytes evaluated used cancer based residential VISLs, except for acetone and acrolein. These analytes do not have a cancer based indoor air screening value, so the noncancer residential VISLs were used as a first-tier screening level.

7.3. Purge Volume

The May 2021 work plan (KAFB, 2021a) stated the volume utilized for purging was a simple calculation including the length of the tubing set and the diameter of the tube itself. The May 2021 work plan did not consider the volume of the filter pack. As seen in **Appendix J**, the volume of the annular space was added to the calculation when determining purge times in the field. This resulted in actual purging for this investigation exceeding the minimum three volume requirement as porosity of the filter pack was not included in the calculation. For future sampling events, a factor for porosity will be added to the purge calculations to ensure an accurate volume is used when determining purge times.

7.4. Trip Blanks

The May 2021 work plan (KAFB, 2021a) stated two trip blanks would be submitted to the laboratory for analysis. Trip blank canisters are not necessarily representative of batch contamination since each sample is contained within an individual Summa® canister. In place of trip blanks, ambient blanks were collected for each day of sampling.

7.5. Regulatory Coordination in Accordance with the Approved Work Plan

In accordance with Section 8.4 of the approved work plan, the Air Force will reach out to NMED to discuss the final validated data and determine the path forward for a potential second phase of this shallow soil vapor investigation. On September 16, 2022, the Air Force informed NMED Hazardous Waste Bureau (HWB) that the validated data would be available in late October 2022 and per the approved shallow soil vapor work plan, "After both the summer and winter sampling events are completed and when the final validated data is received from the sampling events, the Air Force will reach out to NMED to discuss the final data and determine the path forward for the shallow soil vapor investigation." In addition, the October 3, 2021 NMED approval letter stated that the Air Force shall provide data to NMED prior to submittal of the investigation report. This discussion of the validated data, as the work plan and approval letter describe, will allow the Final Investigation Report to document the path forward determined at the meeting. In addition, this meeting could determine how the data can be utilized to update the 2018 RA for the site.

On September 21st, 2022, NMED HWB indicated in an email (NMED, 2022b) that as the Permittee did not follow NMED direction for either of the shallow soil vapor sampling events, did not follow the requirements of KAFB Permit section 6.5.16, Requirements for Soil-Vapor Monitoring, continued the practice of purging less than one purge volume prior to sample collection, continued using purge and sample collection flow rates that are over an order of magnitude higher than EPA recommendations, and failed to collect samples for TPH fractions, the data is not considered representative of subsurface conditions and cannot be used for any decision-making purposes, including for the RA. In addition, NMED stated the investigation is ongoing at the Bulk Fuels Facility Spill (BFFS) site; therefore, a RA cannot be completed at this time. Risk is calculated as cumulative risk for all media and cannot be evaluated in isolation from other media. Also, NMED is unable to evaluate data outside of a complete report. The Permittee can submit a complete report to NMED if they feel it is warranted. Based on the information detailed above, NMED asserts the soil vapor samples were not collected appropriately and cannot be considered representative of subsurface conditions (NMED, 2022b).

This email directly contradicts the Shallow Soil Vapor Work Plan and the subsequent NMED approval letter. Since shallow soil vapor activities incorporated the requirements for TPH and three purge volumes stated in NMED's August 31, 2021 letter, the samples were collected accurately and are representative for making decision making purposes and satisfy the stipulated requirements to complete the RA at this time.

8. CONCLUSIONS AND RECOMMENDATIONS

This Investigation Report is part of a phased investigative approach to assess the extent of shallow soil vapor outside the Kirtland AFB boundary. Included in this report is a description of the installation, initial sampling activities, and results for eight shallow SVMWs placed in locations most likely to have detectable vapor concentrations. This dataset was collected in accordance with the associated work plan dated May 25, 2021 (KAFB, 2021a) and approved by the NMED on October 3, 2021 (NMED, 2021), and is intended to be used to confirm the conclusions presented in the RA (KAFB, 2017), as requested in the February 25, 2019 NMED letter (NMED, 2019).

Samples were collected from February 28 through March 2, 2022 (winter event), and August 8 through August 10, 2022 (summer event) from eight SVMWs at three depths each (5, 10, and 15 feet bgs) for a total of 24 samples. Shallow soil vapor samples were shipped to ALS for analysis. The ALS laboratory maintains current DOD ELAP certification for the required analyses in support of this project. Sample analyses were performed in accordance with EPA Methods TO-15 (SIM mode), TO-15, and TO-3.

8.1. Results

During the winter and summer sampling events no COPC exceeded their respective VISL. Non-COPCs also did not exceed their respective VISLs with the exception of acrolein (16 samples in all, with at least one sample per SVMW exceeding the non-carcinogenic VISL = $0.695 \mu\text{g}/\text{m}^3$). An EPA Stage 3 validation was performed on 100% of the analytical data to verify that the laboratory complied with the project UFP-QAPP and method requirements, and 100% of the data collected is usable and should be considered representative of subsurface conditions at each of the eight wells. No off base shallow soil vapor concerns were identified as a part of this investigation.

8.2. Recommendations

According to the October 3, 2021 work plan approval letter (NMED, 2021), if data collected during the two sampling events identified any “soil vapor concentrations that indicate additional sampling is needed” (i.e., one or more COPCs exceeded their respective VISL), Kirtland AFB would work with NMED to develop a second work plan “to extend sampling from the point of detection outward.” Based on the data collected, additional well installation and analysis step outs are unnecessary. However, it is recommended to incorporate these eight new wells into the existing Kirtland AFB soil vapor monitoring network that is sampled on a semiannual basis.

The one analyte that exceeded NMED noncancer VISLs was acrolein, which is not considered a site COPC as it is a constituent typically found in commercially available biocides, herbicides and pesticides. Therefore, these detections are not related to the fuel release and likely related to historical biocide applications. Additionally, none of these SVM locations are within 200 ft of an occupied building, thus satisfying NMED risk guidance bullet one in section 2.5.2.1 for an incomplete pathway.

Additionally, the data collected from these shallow SVMs should be utilized to confirm the conclusion of the 2017 RA (KAFB, 2017) in an updated RA. The NMED previously approved

1 the conceptual exposure models and associated risk calculations for both groundwater and soil
2 media for the Site. Subsequently, in a letter dated Feb 25, 2019, NMED required “The Permittee
3 shall send a work plan to NMED no later than May 30, 2019 that proposes to collect shallow soil
4 vapor samples to evaluate for the presence of benzene, EDB, and other VOCs (if present) in
5 residential area north of Ridgecrest, and on campus of VA Hospital” (NMED, 2019). The results
6 of this investigation indicate all COPCs are below NMED VISLs from SVMP locations that are
7 the most likely to have impacted soil vapor associated with the BFF site. Based on this data, the
8 Air Force has concluded there is no feasible exposure scenario in which Site related
9 contaminants can impact vapor intrusion receptors associated with residential areas north of
10 Ridgecrest or on the VA Hospital campus. The Air Force is requesting NMED’s concurrence to
11 use the data associated with these shallow SVMPs to update the conceptual exposure model and
12 risk calculations associated with the soil vapor media in an updated RA.

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10. TABLES

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Table 4-1. Contaminants of Potential Concern

Analyte	Residential VISL ($\mu\text{g}/\text{m}^3$)	MRL/LOQ ($\mu\text{g}/\text{m}^3$) ^b	MDL ($\mu\text{g}/\text{m}^3$) ^c
Benzene	1.20E+02	0.53	0.077
tert-Butyl methyl ether (MTBE)	3.60E+03	0.54	0.063
1,2-Dibromoethane	1.56E+00	0.53	0.062
1,2-Dichloroethane	3.60E+01	0.51	0.078
Ethylbenzene	3.74E+02	0.53	0.075
n-Hexane	2.43E+04	0.53	0.11
Naphthalene	2.75E+01	0.53	0.13
Toluene	1.74E+05	0.53	0.065
m-Xylene	3.48E+03	1.1	0.14
o-Xylene	3.48E+03	0.53	0.077
p-Xylene	3.48E+03	1.1	0.14
Xylenes ^a	3.48E+03	2.73	NA
1,2,4-Trimethylbenzene	NA	0.53	0.074
Cyclohexane	NA	1.1	0.15
n-Heptane	NA	0.53	0.085

^a Total Xylenes will be reported as the sum of m, p-xylene, and o-xylene. No MDL or limit of detection evaluation is performed for Total Xylenes.

^b Actual reporting limits will be higher depending on the canister pressurization dilution factor and/or sample matrix effects. Typical canister pressurization dilution factors are between 1.5-2.0.

^c MRLs assume a standard sample analysis volume (one liter for six-liter canister) canister.

MRL = Method reporting limit

LOQ = Limit of quantification

MDL = Minimum Detection limit

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

NA = Not applicable

VISL = vapor intrusion screening level per NMED November 2022 Risk Assessment Guidance for Site Investigations and Remediation

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Table 5-1. Shallow Soil Vapor Monitoring Point Locations, Depths, Analytical Methods, and Rationale

Shallow Soil Vapor Monitoring Location	Shallow Soil Vapor Monitoring Point ID	Location ^a		Screened Interval (ft bgs)		Analyses/Methods		Rationale for Location
		Northing - Grid	Easting - Grid	Top	Bottom	VOCs TO-15 SIM / TO-15	TPH TO-3	
SVMW-16 ^b	SVMW-16-005	1474067.33	1541139.35	4.5	5.0	X	X	Strategically located adjacent to the only utility running off base. Location will monitor natural gas, potable water, and sanitary sewer lines.
	SVMW-16-010			9.5	10.0	X	X	
	SVMW-16-015			14.5	15.0	X	X	
SVMW-17 ^c	SVMW-17-005	1474054.16	1540690.00	4.5	5.0	X	X	Monitoring northern perimeter along water and sanitary sewer utilities
	SVMW-17-010			9.5	10.0	X	X	
	SVMW-17-015			14.5	15.0	X	X	
SVMW-18 ^c	SVMW-18-005	1474040.30	1542149.04	4.5	5.0	X	X	Monitoring northern perimeter along the sanitary sewer utilities and over the known benzene footprint.
	SVMW-18-010			9.5	10.0	X	X	
	SVMW-18-015			14.5	15.0	X	X	
SVMW-19 ^b	SVMW-19-005	1474050.60	1542453.52	4.5	5.0	X	X	Monitoring northern perimeter along the water utilities and over the known fuel plume footprint.
	SVMW-19-010			9.5	10.0	X	X	
	SVMW-19-015			14.5	15.0	X	X	
SVMW-20 ^b	SVMW-20-005	1474788.48	1542220.56	4.5	5.0	X	X	Monitoring western edge of the known fuel plume in Bullhead Memorial Park.
	SVMW-20-010			9.5	10.0	X	X	
	SVMW-20-015			14.5	15.0	X	X	
SVMW-21 ^b	SVMW-21-005	1474700.79	1542526.34	4.5	5.0	X	X	Monitoring the centerline of the fuel plume in Bullhead Memorial Park.
	SVMW-21-010			9.5	10.0	X	X	
	SVMW-21-015			14.5	15.0	X	X	
SVMW-22 ^b	SVMW-22-005	1474682.80	1542826.75	4.5	5.0	X	X	Monitoring eastern edge of the known fuel plume in Bullhead Memorial Park.
	SVMW-22-010			9.5	10.0	X	X	
	SVMW-22-015			14.5	15.0	X	X	
SVMW-23 ^b	SVMW-23-005	1475233.17	1542583.30	4.5	5.0	X	X	Monitoring leading edge of the known fuel plume in Bullhead Memorial Park. Strategically located adjacent to an off base sanitary sewer line.
	SVMW-23-010			9.5	10.0	X	X	
	SVMW-23-015			14.5	15.0	X	X	

^a Coordinates are provided in NAD 83 Grid Coordinates (New Mexico Central 3002).

^b Monitoring locations SVMW-16, SVMW-19, SVMW-20, SVMW-21, SVMW-22 and SVMW-23 were drilled to a diameter of 3.25 inches.

^c Monitoring locations SVMW-17 and SVMW-18 were drilled to a diameter of 2.25 inches.

Bgs = below ground surface

Ft = feet

VOC = volatile organic compound

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Table 6-1. Purge Time and Volume

Well ID	Calculated 3-Well Volume Purge Time and Volume			Sampling Events Actual Purge Times and Volumes			
	3-Well Volumes (L)	Summer Purge Time @ 0.450 LPM (min)	Winter Purge Time @ 0.500 LPM (min)	Summer Sampling Event Actual Purge Time (min)	Summer Sampling Event Actual Purge Volume (L)	Winter Sampling Event Actual Purge Time (min)	Winter Sampling Event Actual Purge Volume (L)
SVMW-16-5	2.95	6.55	5.89	9	4.05	6	3.00
SVMW-16-10	3.12	6.94	6.25	9	4.05	9	4.50
SVMW-16-15	6.14	13.64	12.28	15	6.75	15	7.50
SVMW-17-5	1.56	3.46	3.11	6	2.70	6	3.00
SVMW-17-10	1.73	3.85	3.47	6	2.70	6	3.00
SVMW-17-15	4.81	10.68	9.61	12	5.40	12	6.00
SVMW-18-5	1.56	3.46	3.11	6	2.70	6	3.00
SVMW-18-10	3.18	7.07	6.36	9	4.05	9	4.50
SVMW-18-15	2.64	5.86	5.27	6	2.70	6	3.00
SVMW-19-5	4.37	9.70	8.73	12	5.40	9	4.50
SVMW-19-10	3.12	6.94	6.25	9	4.05	9	4.50
SVMW-19-15	8.98	19.95	17.95	21	9.45	18	9.00
SVMW-20-5	4.37	9.70	8.73	12	5.40	9	4.50
SVMW-20-10	3.12	6.94	6.25	9	4.05	9	4.50
SVMW-20-15	3.30	7.34	6.60	9	4.05	9	4.50
SVMW-21-5	5.78	12.85	11.57	15	6.75	12	6.00
SVMW-21-10	4.54	10.10	9.09	12	5.40	9	4.50
SVMW-21-15	3.30	7.34	6.60	9	4.05	9	4.50
SVMW-22-5	2.95	6.55	5.89	9	4.05	6	3.00
SVMW-22-10	3.16	7.01	6.31	9	4.05	9	4.50
SVMW-22-15	3.30	7.34	6.60	9	4.05	9	4.50
SVMW-23-5	2.95	6.55	5.89	9	4.05	6	3.00
SVMW-23-10	3.12	6.94	6.25	9	4.05	9	4.50
SVMW-23-15	4.72	10.49	9.44	12	5.40	12	6.00

Purge volume = (annular space volume) + (sample tube (inner) volume) - (any tube [outer] volumes that pass through the sand pack of that level).

Purge flow rates for the summer and winter events differ due to variations in equivalent equipment therefore flowrates were monitored and adjusted with an external flow meter.

ID = identification

L = liters

min = minute

LPM = liters per minute

Table 6-2. Winter Sampling – Field Measurements

Location	Sample ID	Date	Time	PID (ppm)	CO ² (%)	O ² (%)	CH ₄ (%)	Purge Duration (minutes)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)	Induced Vacuum During Well Purge (Inches H ₂ O)
SVMW-16	SVMW-16-5	03/01/22	1306	1.0	0.2	20.4	0	6	0	0
SVMW-16	SVMW-16-10	03/01/22	1339	0.2	0.2	20.0	0	9	0	0
SVMW-16	SVMW-16-15	03/01/22	1415	0.9	0.2	20.3	0	15	0	1.0
SVMW-17	SVMW-17-5	03/01/22	1453	0.3	0	21.9	0	6	0	0.5
SVMW-17	SVMW-17-10	03/01/22	1518	0.4	0.1	22.2	0	6	0	0
SVMW-17	SVMW-17-15	03/01/22	1551	0.4	0.2	21.7	0	12	0	2.0
SVMW-18	SVMW-18-5	03/02/22	0958	1.0	0.1	21.7	0	6	0	0
SVMW-18	SVMW-18-10	03/02/22	1026	1.0	0.2	21.4	0	9	-0.05	0
SVMW-18	SVMW-18-15	03/02/22	1049	0.3	0.3	21.2	0	6	-0.04	0
SVMW-19	SVMW-19-5	03/02/22	1026	0.8	0.1	20.2	0	9	0	0
SVMW-19	SVMW-19-10	03/02/22	1151	0.9	0.2	19.6	0	9	0	0
SVMW-19	SVMW-19-15	03/02/22	1230	0.7	0.2	19.5	0	18	0	0
SVMW-20	SVMW-20-5	02/28/22	1319	1.8	0.8	20.2	0	9	0	1.0
SVMW-20	SVMW-20-10	02/28/22	1402	1.2	0.9	19.6	0	9	0	0
SVMW-20	SVMW-20-15	02/28/22	1443	1.2	0.9	19.4	0	9	0	0
SVMW-21	SVMW-21-5	02/28/22	1536	0.1	0.1	19.6	0	12	0	0
SVMW-21	SVMW-21-10	02/28/22	1612	0.4	0.2	19.6	0	9	0	0
SVMW-21	SVMW-21-15	02/28/22	1648	0.1	0.5	19.8	0	9	0	0
SVMW-22	SVMW-22-5	03/01/22	1038	0.8	0.3	19.0	0	6	0	0
SVMW-22	SVMW-22-10	03/01/22	1114	0.3	0.4	18.6	0	9	-0.34	0
SVMW-22	SVMW-22-15	03/01/22	1154	0.1	0.4	18.8	0	9	0	0.5
SVMW-23	SVMW-23-5	02/28/22	1042	1.5	0.2	20.9	0	6	0	0.9
SVMW-23	SVMW-23-10	02/28/22	1129	1.5	0.2	20.7	0	9	-0.06	1.0
SVMW-23	SVMW-23-15	02/28/22	1209	1.2	0.1	20.4	0	12	0	2.0

ID = identification

PID = photoionization detector

Ppm = part per million

CO² = carbon dioxideO² = oxygenCH₄ = methaneInches H₂O = inches of water

Table 6-3. Summer Sampling – Field Measurements

Location	Sample ID	Date	Time	PID (ppm)	CO ² (%)	O ² (%)	CH ₄ (%)	Purge Duration (minutes)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)	Induced Vacuum During Well Purge (Inches H ₂ O)
SVMW-16	SVMW-16-5-2	08/09/22	1104	4.3	0.3	19.2	0	9	0	0.3
SVMW-16	SVMW-16-10-2	08/09/22	1137	3.9	0.3	19.2	0	9	-0.15	0.5
SVMW-16	SVMW-16-15-2	08/09/22	1219	3.7	0.3	18.8	0	15	0	1.0
SVMW-17	SVMW-17-5-2	08/09/22	1253	4.2	0.1	18.8	0	6	0	0.45
SVMW-17	SVMW-17-10-2	08/09/22	1317	5.3	0.1	18.7	0	6	0	0.7
SVMW-17	SVMW-17-15-2	08/09/22	1345	4.1	0.1	18.5	0	12	0	2.4
SVMW-18	SVMW-18-5-2	08/10/22	0925	3.6	0.2	19.6	0	6	0	0.25
SVMW-18	SVMW-18-10-2	08/10/22	0951	3.7	0.3	19.6	0	9	-0.4	0.4
SVMW-18	SVMW-18-15-2	08/10/22	1015	4.2	0.3	19.4	0	6	-0.05	0.7
SVMW-19	SVMW-19-5-2	08/10/22	1054	4.2	0.1	19.6	0	12	0	0.3
SVMW-19	SVMW-19-10-2	08/10/22	1121	4.1	0.2	19.6	0	9	0	0.5
SVMW-19	SVMW-19-15-2	08/10/22	1155	3.2	0.2	18.7	0	21	0	0.8
SVMW-20	SVMW-20-5-2	08/08/22	1109	2.1	1.9	16.9	0	12	0	1.8
SVMW-20	SVMW-20-10-2	08/08/22	1141	1.6	1.8	16.8	0	9	0	0.9
SVMW-20	SVMW-20-15-2	08/08/22	1209	2.0	1.6	16.9	0	9	0	0.4
SVMW-21	SVMW-21-5-2	08/09/22	0905	3.1	0.4	17.7	0	15	-0.1	0.5
SVMW-21	SVMW-21-10-2	08/09/22	0938	3.7	0.6	17.5	0	12	-1.0	0.5
SVMW-21	SVMW-21-15-2	08/09/22	1007	4.5	0.8	17.5	0	9	-0.25	1.5
SVMW-22	SVMW-22-5-2	08/08/22	1253	2.3	0.5	16.4	0	9	0	0.2
SVMW-22	SVMW-22-10-2	08/08/22	1325	1.8	0.3	17.6	0	9	0.25	0.5
SVMW-22	SVMW-22-15-2	08/08/22	1351	1.5	0.6	17.3	0	9	0	0.7
SVMW-23	SVMW-23-5-2	08/08/22	0853	1.1	0.7	17.1	0	9	-0.2	3.0
SVMW-23	SVMW-23-10-2	08/08/22	0931	1.9	0.6	17.1	0	9	-0.2	3.0
SVMW-23	SVMW-23-15-2	08/08/22	1008	1.6	0.4	17.6	0	12	0	3.0

ID = identification

PID = photoionization detector

Ppm = part per million

CO² = carbon dioxideO² = oxygenCH₄ = methaneInches H₂O = inches of water

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Table 6-4. SVMW-16 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 16-5 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 16-10 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 16-15 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
1,1,2,2-Tetrachloroethane	16.1	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
1,1,2-Trichloroethane	6.95	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
1,1,2-Trichlorotrifluoroethane	1040000	16	0.039	26	0.052	50	0.075
1,1-Dichloroethane	585	0.039 U	0.039	0.052 U	0.052	0.075 U	0.075
1,1-Dichloroethene	6950	0.039 U	0.039	0.052 U	0.052	0.075 U	0.075
1,2,4-Trichlorobenzene	69.5	0.075 U	0.075	0.1 U	0.1	0.15 U	0.15
1,2,4-Trimethylbenzene	NA	0.17 J	0.037	0.96	0.05	0.092 J	0.071
1,2-Dibromo 3-Chloropropane	0.0563	0.037 U	0.037	0.05 U	0.05	0.071 UJ	0.071
1,2-Dibromoethane	1.56	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
1,2-Dichlorobenzene	6950	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
1,2-Dichloroethane	36	0.039 U	0.039	0.052 U	0.052	0.075 U	0.075
1,2-Dichloropropane	93.6	0.02 J	0.039	0.015 J	0.052	0.075 U	0.075
1,3,5-Trimethylbenzene	NL	0.037 J	0.037	0.05 U	0.05	0.071 U	0.071
1,3-Butadiene	31.2	0.074 U	0.074	0.099 U	0.099	0.14 U	0.14
1,3-Dichlorobenzene	NL	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
1,4-Dichlorobenzene	85.1	0.061	0.037	0.051 J	0.05	0.071 U	0.071
1,4-Dioxane	187	0.039 U	0.039	0.052 U	0.052	0.031 J	0.075
Acetone	1080000 ^a	1.8 J	0.19	4.2 J	0.26	4 J	0.37
Acrolein	0.695 ^a	0.11 J	0.18	0.28 J	0.24	0.23 J	0.34
Benzene	120	0.072 J	0.074	0.19	0.099	0.16 J	0.14
Bromodichloromethane	25.3	0.056 J	0.039	0.2	0.052	0.39	0.075
Bromomethane	174	0.014 J	0.039	0.052 U	0.052	0.071 J	0.075
Carbon Tetrachloride	156	3.9	0.037	6.3	0.05	12	0.071
Chlorobenzene	1740	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
Chloroethane	348000	0.039 UJ	0.039	0.052 U	0.052	0.075 U	0.075
Chloroform	40.7	0.21 J	0.075	0.7	0.1	1.7	0.15
Chloromethane	520	0.074 U	0.074	0.099 U	0.099	0.14 U	0.14
cis-1,2-Dichloroethene	NA	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
cis-1,3-Dichloropropene	234	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
Cyclohexane	34800	0.58 U	0.58	0.58 U	0.58	0.56 U	0.56
Dibromochloromethane	34.7	0.037 UJ	0.037	0.026 J	0.05	0.043 J	0.071
Dichlorodifluoromethane (CFC 12)	3480	1.8	0.074	1.8	0.099	2	0.14
Dichloromethane (Methylene Chloride)	20900	0.11 J	0.074	0.67	0.099	0.079 J	0.14
Ethylbenzene	374	0.12 J	0.037	0.6	0.05	0.11 J	0.071
Hexachlorobutadiene	42.5	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
m,p-Xylenes	3480	0.34	0.54	1.6	0.55	0.24 J	0.53
Methyl tert-Butyl Ether	3600	0.039 U	0.075	0.052 U	0.1	0.075 U	0.15
Naphthalene	27.5	0.24	0.039	0.19 J	0.052	0.11 J	0.075
n-Heptane	NL	0.54 U	0.072	0.55 U	0.097	0.53 U	0.14
n-Hexane	24300	0.54 UJ	0.54	0.24 J	0.55	0.53 U	0.53
o-Xylene	3480	0.24	0.037	0.65	0.05	0.11 J	0.071
Styrene	34800	0.1 J	0.037	0.064 J	0.05	0.071 U	0.071
Tetrachloroethene	1390	0.71	0.037	0.76	0.05	0.49	0.071
Toluene	174000	0.6	0.075	1.1	0.1	0.27 J	0.15
TPH as Gasoline (mg/m ³) ^b	NA	4.5 U	4.5	4.4 U	4.4	4.4 U	4.4
trans-1,2-Dichloroethene	1390	0.039 U	0.039	0.052 U	0.052	0.075 U	0.075
trans-1,3-Dichloropropene	234	0.037 U	0.037	0.05 U	0.05	0.071 U	0.071
Trichloroethene	69.5	0.14 J	0.037	0.068	0.05	0.044 J	0.071
Trichlorofluoromethane	24300	1.3	0.074	1.6	0.099	2.1	0.14
Vinyl Chloride	55.9	0.039 UJ	0.039	0.052 UJ	0.052	0.075 UJ	0.075

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-5. SVMW-17 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 17-5 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 17-10 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 17-15 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,1,2,2-Tetrachloroethane	16.1	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,1,2-Trichloroethane	6.95	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,1,2-Trichlorotrifluoroethane	1040000	0.46	0.05	0.48	0.05	0.47	0.05
1,1-Dichloroethane	585	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
1,1-Dichloroethene	6950	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
1,2,4-Trichlorobenzene	69.5	0.099 U	0.099	0.098 U	0.098	0.099 U	0.099
1,2,4-Trimethylbenzene	NA	0.22 J	0.048	0.32	0.048	0.41	0.048
1,2-Dibromo 3-Chloropropane	0.0563	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,2-Dibromoethane	1.56	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,2-Dichlorobenzene	6950	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,2-Dichloroethane	36	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
1,2-Dichloropropane	93.6	0.05 U	0.05	0.05 U	0.05	0.019 J	0.05
1,3,5-Trimethylbenzene	NL	0.044 J	0.048	0.078 J	0.048	0.11 J	0.048
1,3-Butadiene	31.2	0.096 U	0.096	0.096 U	0.096	0.096 U	0.096
1,3-Dichlorobenzene	NL	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
1,4-Dichlorobenzene	85.1	0.063	0.048	0.096	0.048	0.08	0.048
1,4-Dioxane	187	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
Acetone	1080000 ^a	1.8 J	0.25	2 J	0.25	4.8 J	0.25
Acrolein	0.695 ^a	0.11 J	0.23	0.098 J	0.23	0.46	0.23
Benzene	120	0.052 J	0.096	0.061 J	0.096	0.12 J	0.096
Bromodichloromethane	25.3	0.071	0.05	0.088	0.05	0.082	0.05
Bromomethane	174	0.05 U	0.05	0.02 J	0.05	0.02 J	0.05
Carbon Tetrachloride	156	0.27	0.048	0.26	0.048	0.23	0.048
Chlorobenzene	1740	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
Chloroethane	348000	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
Chloroform	40.7	0.2 J	0.099	0.26 U	0.098	0.29	0.099
Chloromethane	520	0.096 U	0.096	0.096 U	0.096	0.096 U	0.096
cis-1,2-Dichloroethene	NA	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
cis-1,3-Dichloropropene	234	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
Cyclohexane	34800	0.57 U	0.57	0.56 U	0.56	0.57 U	0.57
Dibromochloromethane	34.7	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
Dichlorodifluoromethane (CFC 12)	3480	1.9	0.096	1.9	0.096	1.7	0.096
Dichloromethane (Methylene Chloride)	20900	0.091 J	0.096	0.089 J	0.096	0.24	0.096
Ethylbenzene	374	0.16 J	0.048	0.14 J	0.048	0.22 J	0.048
Hexachlorobutadiene	42.5	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
m,p-Xylenes	3480	0.45	0.53	0.46	0.53	0.74	0.53
Methyl tert-Butyl Ether	3600	0.05 U	0.099	0.05 U	0.098	0.05 U	0.099
Naphthalene	27.5	0.2 J	0.05	0.17J	0.05	0.11 J	0.05
n-Heptane	NL	0.53 U	0.094	0.53 U	0.093	0.18 J	0.094
n-Hexane	24300	1.3	0.53	0.27 J	0.53	0.44 J	0.53
o-Xylene	3480	0.34	0.048	0.31	0.048	0.41	0.048
Styrene	34800	0.17 J	0.048	0.064 J	0.048	0.1 J	0.048
Tetrachloroethene	1390	0.28	0.048	0.32	0.048	0.34	0.048
Toluene	174000	0.47	0.099	0.44	0.098	0.67	0.099
TPH as Gasoline (mg/m ³) ^b	NA	4.4 U	4.4	4.3 U	4.3	4.3 U	4.3
trans-1,2-Dichloroethene	1390	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
trans-1,3-Dichloropropene	234	0.048 U	0.048	0.048 U	0.048	0.048 U	0.048
Trichloroethene	69.5	0.08	0.048	0.065	0.048	0.097	0.048
Trichlorofluoromethane	24300	0.95	0.096	0.96	0.096	0.89	0.096
Vinyl Chloride	55.9	0.05 UJ	0.05	0.05 UJ	0.05	0.05 UJ	0.05

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-6. SVMW-18 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 18-5 ($\mu\text{g}/\text{m}^3$) 3/2/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 18-10 ($\mu\text{g}/\text{m}^3$) 3/2/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 18-15 ($\mu\text{g}/\text{m}^3$) 3/2/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,1,2,2-Tetrachloroethane	16.1	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,1,2-Trichloroethane	6.95	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,1,2-Trichlorotrifluoroethane	1040000	0.41	0.033	0.4	0.032	0.4	0.032
1,1-Dichloroethane	585	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
1,1-Dichloroethene	6950	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
1,2,4-Trichlorobenzene	69.5	0.065 U	0.065	0.062 U	0.062	0.062 U	0.062
1,2,4-Trimethylbenzene	NA	0.28	0.032	0.72	0.03	0.91	0.03
1,2-Dibromo 3-Chloropropane	0.0563	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,2-Dibromoethane	1.56	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,2-Dichlorobenzene	6950	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,2-Dichloroethane	36	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
1,2-Dichloropropane	93.6	0.033 U	0.033	0.032 U	0.032	0.0089 J	0.032
1,3,5-Trimethylbenzene	NL	0.038 J	0.032	0.11 J	0.03	0.16	0.03
1,3-Butadiene	31.2	0.063 U	0.063	0.06 U	0.06	0.061 U	0.061
1,3-Dichlorobenzene	NL	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
1,4-Dichlorobenzene	85.1	0.032 U	0.032	0.18	0.03	0.31	0.03
1,4-Dioxane	187	0.033 U	0.033	0.032 U	0.032	0.017 J	0.032
Acetone	1080000 ^a	2.3 J	0.17	0.93 J	0.16	1.4 J	0.16
Acrolein	0.695 ^a	0.41 J	0.15	0.14 U	0.14	0.06 J	0.15
Benzene	120	0.065 J	0.063	0.038 J	0.06	0.055 J	0.061
Bromodichloromethane	25.3	0.076	0.033	0.02 J	0.032	0.038	0.032
Bromomethane	174	0.016 J	0.033	0.016 J	0.032	0.012 J	0.032
Carbon Tetrachloride	156	0.25	0.032	0.17	0.03	0.14	0.03
Chlorobenzene	1740	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
Chloroethane	348000	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
Chloroform	40.7	0.13 J	0.065	0.12 J	0.062	0.22	0.062
Chloromethane	520	0.063 U	0.063	0.06 U	0.06	0.061 U	0.061
cis-1,2-Dichloroethene	NA	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
cis-1,3-Dichloropropene	234	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
Cyclohexane	34800	0.5 U	0.5	0.48 U	0.48	0.48 U	0.48
Dibromochloromethane	34.7	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
Dichlorodifluoromethane (CFC 12)	3480	1.9	0.063	2.1	0.06	2.3	0.061
Dichloromethane (Methylene Chloride)	20900	0.053 J	0.063	0.065 J	0.06	0.099 J	0.061
Ethylbenzene	374	0.3	0.032	0.3	0.03	0.19	0.03
Hexachlorobutadiene	42.5	0.032 U	0.032	0.03 U	0.03	0.03 U	0.03
m,p-Xylenes	3480	1.1	0.47	1.4	0.45	0.92	0.45
Methyl tert-Butyl Ether	3600	0.033 U	0.065	0.032 U	0.062	0.032 U	0.062
Naphthalene	27.5	0.064 J	0.033	0.1 J	0.032	0.15	0.032
n-Heptane	NL	0.47 U	0.062	0.45 U	0.059	0.45 U	0.059
n-Hexane	24300	2.5	0.47	0.29 J	0.45	0.24 J	0.45
o-Xylene	3480	1.2	0.032	0.97	0.03	0.7	0.03
Styrene	34800	0.071 J	0.032	0.05 J	0.03	0.039 J	0.03
Tetrachloroethene	1390	0.2	0.032	0.27	0.03	0.26	0.03
Toluene	174000	0.58	0.065	0.36	0.062	0.35	0.062
TPH as Gasoline (mg/m ³) ^b	NA	4.4 U	4.4	4.2 U	4.2	4.2 U	4.2
trans-1,2-Dichloroethene	1390	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
trans-1,3-Dichloropropene	234	0.032 U	0.032	0.03 U	0.03	0.064 J	0.03
Trichloroethene	69.5	0.046	0.032	0.023 J	0.03	0.03 J	0.03
Trichlorofluoromethane	24300	0.92	0.063	0.93	0.06	0.94	0.061
Vinyl Chloride	55.9	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-7. SVMW-19 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 19-5 ($\mu\text{g}/\text{m}^3$) 3/2/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 19-10 ($\mu\text{g}/\text{m}^3$) 3/2/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 19-15 ($\mu\text{g}/\text{m}^3$) 3/2/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.11	0.031	0.21	0.031	0.29	0.031
1,1,2,2-Tetrachloroethane	16.1	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
1,1,2-Trichloroethane	6.95	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
1,1,2-Trichlorotrifluoroethane	1040000	0.41	0.032	0.4	0.032	0.41	0.033
1,1-Dichloroethane	585	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033
1,1-Dichloroethene	6950	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033
1,2,4-Trichlorobenzene	69.5	0.063 U	0.063	0.063 U	0.063	0.064 U	0.064
1,2,4-Trimethylbenzene	NA	0.15	0.031	1.2	0.031	0.16	0.031
1,2-Dibromo 3-Chloropropane	0.0563	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
1,2-Dibromoethane	1.56	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
1,2-Dichlorobenzene	6950	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
1,2-Dichloroethane	36	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033
1,2-Dichloropropane	93.6	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033
1,3,5-Trimethylbenzene	NL	0.029 J	0.031	0.21	0.031	0.033 J	0.031
1,3-Butadiene	31.2	0.061 U	0.061	0.061 U	0.061	0.063 U	0.063
1,3-Dichlorobenzene	NL	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
1,4-Dichlorobenzene	85.1	0.04	0.031	0.54	0.031	0.094	0.031
1,4-Dioxane	187	0.032 U	0.032	0.027 J	0.032	0.033 U	0.033
Acetone	1080000 ^a	1.8 J	0.16	1.1 J	0.16	1.1 J	0.16
Acrolein	0.695 ^a	0.16 J	0.15	0.089 J	0.15	0.059 J	0.15
Benzene	120	0.046 J	0.061	0.061 J	0.061	0.04 J	0.063
Bromodichloromethane	25.3	0.055	0.032	0.029 J	0.032	0.051	0.033
Bromomethane	174	0.013 J	0.032	0.012 J	0.032	0.012 J	0.033
Carbon Tetrachloride	156	0.29	0.031	0.22	0.031	0.17	0.031
Chlorobenzene	1740	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
Chloroethane	348000	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033
Chloroform	40.7	0.096 J	0.063	0.11 J	0.063	0.22	0.064
Chloromethane	520	0.061 U	0.061	0.061 U	0.061	0.063 U	0.063
cis-1,2-Dichloroethene	NA	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
cis-1,3-Dichloropropene	234	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
Cyclohexane	34800	0.48 U	0.48	0.48 U	0.48	0.49 U	0.49
Dibromochloromethane	34.7	0.013 J	0.031	0.031 U	0.031	0.031 U	0.031
Dichlorodifluoromethane (CFC 12)	3480	1.8	0.061	1.9	0.061	1.9	0.063
Dichloromethane (Methylene Chloride)	20900	0.035 J	0.061	0.036 J	0.061	0.051 J	0.063
Ethylbenzene	374	0.057 J	0.031	0.23	0.031	0.082 J	0.031
Hexachlorobutadiene	42.5	0.031 U	0.031	0.031 U	0.031	0.031 U	0.031
m,p-Xylenes	3480	0.19	0.45	0.78	0.45	0.27	0.46
Methyl tert-Butyl Ether	3600	0.032 U	0.063	0.032 U	0.063	0.033 U	0.064
Naphthalene	27.5	0.14 J	0.032	0.28	0.032	0.24	0.033
n-Heptane	NL	0.45 U	0.06	0.45 U	0.06	0.46 U	0.061
n-Hexane	24300	1.2	0.45	0.45 U	0.45	0.46 U	0.46
o-Xylene	3480	0.14 J	0.031	0.49	0.031	0.2	0.031
Styrene	34800	0.074 J	0.031	0.056 J	0.031	0.036 J	0.031
Tetrachloroethene	1390	0.17	0.031	0.15	0.031	0.13	0.031
Toluene	174000	0.27	0.063	0.49	0.063	0.26	0.064
TPH as Gasoline (mg/m ³) ^b	NA	4.2 U	4.2	4.2 U	4.2	4.3 U	4.3
trans-1,2-Dichloroethene	1390	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033
trans-1,3-Dichloropropene	234	0.031 U	0.031	0.056 J	0.031	0.18	0.031
Trichloroethene	69.5	0.019 J	0.031	0.016 J	0.031	0.027 J	0.031
Trichlorofluoromethane	24300	0.93	0.061	0.93	0.061	0.93	0.063
Vinyl Chloride	55.9	0.032 U	0.032	0.032 U	0.032	0.033 U	0.033

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-8. SVMW-20 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 20-5 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 20-10 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 20-15 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,1,2,2-Tetrachloroethane	16.1	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,1,2-Trichloroethane	6.95	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,1,2-Trichlorotrifluoroethane	1040000	0.38	0.033	0.33	0.032	0.37	0.032
1,1-Dichloroethane	585	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
1,1-Dichloroethene	6950	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
1,2,4-Trichlorobenzene	69.5	0.064 U	0.064	0.062 U	0.062	0.063 U	0.063
1,2,4-Trimethylbenzene	NA	0.16	0.031	0.66	0.03	0.14 J	0.031
1,2-Dibromo 3-Chloropropane	0.0563	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,2-Dibromoethane	1.56	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,2-Dichlorobenzene	6950	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,2-Dichloroethane	36	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
1,2-Dichloropropane	93.6	0.016 J	0.033	0.016 J	0.032	0.01 J	0.032
1,3,5-Trimethylbenzene	NL	0.046 J	0.031	0.082 J	0.03	0.022 J	0.031
1,3-Butadiene	31.2	0.062 U	0.062	0.061 U	0.061	0.062 U	0.062
1,3-Dichlorobenzene	NL	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
1,4-Dichlorobenzene	85.1	0.031 U	0.031	0.034 J	0.03	0.031 J	0.031
1,4-Dioxane	187	0.033 U	0.033	0.16	0.032	0.032 U	0.032
Acetone	1080000 ^a	1.6 J	0.78	2.2 J	0.77	1.1 J	0.78
Acrolein	0.695 ^a	0.11 J	0.15	0.17 J	0.15	0.088 J	0.15
Benzene	120	0.12	0.062	0.12	0.061	0.058 J	0.062
Bromodichloromethane	25.3	0.031 J	0.033	0.048	0.032	0.053	0.032
Bromomethane	174	0.033 U	0.033	0.01 J	0.032	0.032 UJ	0.032
Carbon Tetrachloride	156	0.14	0.031	0.12	0.03	0.12	0.031
Chlorobenzene	1740	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
Chloroethane	348000	0.013 J	0.033	0.032 U	0.032	0.032 U	0.032
Chloroform	40.7	0.77	0.064	0.99	0.062	1.1	0.063
Chloromethane	520	0.062 U	0.062	0.061 U	0.061	0.062 U	0.062
cis-1,2-Dichloroethene	NA	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
cis-1,3-Dichloropropene	234	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
Cyclohexane	34800	7.9	0.49	8	0.48	4.2 J	0.49
Dibromochloromethane	34.7	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
Dichlorodifluoromethane (CFC 12)	3480	1.7	0.031	1.6	0.03	1.9	0.031
Dichloromethane (Methylene Chloride)	20900	0.14 J	0.062	0.061 J	0.061	0.035 J	0.062
Ethylbenzene	374	0.13 J	0.031	0.19	0.03	0.082 J	0.031
Hexachlorobutadiene	42.5	0.031 U	0.031	0.03 U	0.03	0.031 UJ	0.031
m,p-Xylenes	3480	0.43	0.46	0.66	0.45	0.24 J	0.46
Methyl tert-Butyl Ether	3600	0.033 U	0.064	0.032 U	0.062	0.032 U	0.063
Naphthalene	27.5	0.061 U	0.033	0.24	0.032	0.13 J	0.032
n-Heptane	NL	3	0.061	3.3	0.059	1.7 J	0.06
n-Hexane	24300	4	0.46	4.4	0.45	2.4 J	0.46
o-Xylene	3480	0.22	0.031	0.35	0.03	0.15 J	0.031
Styrene	34800	0.052 J	0.062	0.15	0.061	0.042 J	0.062
Tetrachloroethene	1390	0.13	0.031	0.14	0.03	0.16	0.031
Toluene	174000	0.84	0.064	0.79	0.062	0.38 J	0.063
TPH as Gasoline (mg/m ³) ^b	NA	4.3 U	4.3	4.2 U	4.2	4.3 U	4.3
trans-1,2-Dichloroethene	1390	0.033 U	0.033	0.032 U	0.032	0.032 U	0.032
trans-1,3-Dichloropropene	234	0.031 U	0.031	0.03 U	0.03	0.031 U	0.031
Trichloroethene	69.5	0.11	0.031	0.1	0.03	0.042	0.031
Trichlorofluoromethane	24300	0.86	0.031	0.83	0.03	0.9	0.031
Vinyl Chloride	55.9	0.033 U	0.036	0.032 U	0.035	0.032 U	0.035

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-9. SVMW-21 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 21-5 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 21-10 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 21-15 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,1,2,2-Tetrachloroethane	16.1	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,1,2-Trichloroethane	6.95	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,1,2-Trichlorotrifluoroethane	1040000	0.38	0.033	0.37	0.033	0.38	0.033
1,1-Dichloroethane	585	0.026 J	0.033	0.033 U	0.033	0.033 U	0.033
1,1-Dichloroethene	6950	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
1,2,4-Trichlorobenzene	69.5	0.064 U	0.064	0.065 u	0.065	0.064 U	0.064
1,2,4-Trimethylbenzene	NA	0.14 J	0.031	0.081 U	0.032	0.11 J	0.031
1,2-Dibromo 3-Chloropropane	0.0563	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,2-Dibromoethane	1.56	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,2-Dichlorobenzene	6950	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,2-Dichloroethane	36	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
1,2-Dichloropropane	93.6	0.017 J	0.033	0.019 J	0.033	0.031 J	0.033
1,3,5-Trimethylbenzene	NL	0.034 J	0.031	0.032 U	0.032	0.025 J	0.031
1,3-Butadiene	31.2	0.063 U	0.063	0.064 U	0.064	0.062 U	0.062
1,3-Dichlorobenzene	NL	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,4-Dichlorobenzene	85.1	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,4-Dioxane	187	0.022 J	0.033	0.033 UJ	0.033	0.033 U	0.033
Acetone	1080000 ^a	3.4 J	0.79	1.8 J	0.81	1.2 J	0.78
Acrolein	0.695 ^a	0.18 J	0.15	0.11 J	0.15	0.082 J	0.15
Benzene	120	0.22	0.063	0.11 J	0.064	0.14	0.062
Bromodichloromethane	25.3	0.08	0.033	0.085	0.033	0.17	0.033
Bromomethane	174	0.035 J	0.033	0.014 J	0.033	0.033 U	0.033
Carbon Tetrachloride	156	0.13	0.031	0.1	0.032	0.094	0.031
Chlorobenzene	1740	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Chloroethane	348000	0.02 J	0.033	0.033 U	0.033	0.012 J	0.033
Chloroform	40.7	0.88	0.064	0.94	0.065	1.2	0.064
Chloromethane	520	0.063 U	0.063	0.064 U	0.064	0.062 U	0.062
cis-1,2-Dichloroethene	NA	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
cis-1,3-Dichloropropene	234	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Cyclohexane	34800	5.9	0.49	5.9 J	0.5	3	0.49
Dibromochloromethane	34.7	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Dichlorodifluoromethane (CFC 12)	3480	2.1	0.031	2.2	0.032	2.3	0.031
Dichloromethane (Methylene Chloride)	20900	0.26	0.063	0.095 J	0.064	0.19	0.062
Ethylbenzene	374	0.13 J	0.031	0.08 J	0.032	0.08 J	0.031
Hexachlorobutadiene	42.5	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
m,p-Xylenes	3480	0.32	0.46	0.27 J	0.47	0.24	0.46
Methyl tert-Butyl Ether	3600	0.033 U	0.064	0.033 U	0.065	0.033 U	0.064
Naphthalene	27.5	0.13 J	0.033	0.13 J	0.033	0.096 J	0.033
n-Heptane	NL	2.5	0.061	2.5 J	0.062	1.2	0.061
n-Hexane	24300	3.5	0.46	3.2 J	0.47	1.6	0.46
o-Xylene	3480	0.16	0.031	0.15 J	0.032	0.14 J	0.031
Styrene	34800	0.085 J	0.063	0.059 J	0.064	0.038 J	0.062
Tetrachloroethene	1390	0.77	0.031	0.79	0.032	0.92	0.031
Toluene	174000	0.74	0.064	1 J	0.065	0.52	0.064
TPH as Gasoline (mg/m ³) ^b	NA	4.3 U	4.3	4.4 U	4.4	4.3 U	4.3
trans-1,2-Dichloroethene	1390	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
trans-1,3-Dichloropropene	234	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Trichloroethene	69.5	0.057	0.031	0.039	0.032	0.065	0.031
Trichlorofluoromethane	24300	0.99	0.031	1	0.032	1.1	0.031
Vinyl Chloride	55.9	0.033 U	0.036	0.033 U	0.036	0.033 U	0.036

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-10. SVMW-22 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 22-5 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 22-10 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 22-15 ($\mu\text{g}/\text{m}^3$) 3/1/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,1,2,2-Tetrachloroethane	16.1	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,1,2-Trichloroethane	6.95	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,1,2-Trichlorotrifluoroethane	1040000	0.39	0.038	0.36	0.039	0.38	0.04
1,1-Dichloroethane	585	0.038 U	0.038	0.039 U	0.039	0.04 U	0.04
1,1-Dichloroethene	6950	0.038 U	0.038	0.039 U	0.039	0.04 U	0.04
1,2,4-Trichlorobenzene	69.5	0.075 U	0.075	0.076 U	0.076	0.079 U	0.079
1,2,4-Trimethylbenzene	NA	0.1 J	0.037	0.25	0.037	0.34	0.038
1,2-Dibromo 3-Chloropropane	0.0563	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,2-Dibromoethane	1.56	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,2-Dichlorobenzene	6950	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,2-Dichloroethane	36	0.038 U	0.038	0.022 J	0.039	0.04 U	0.04
1,2-Dichloropropane	93.6	0.038 U	0.038	0.018 J	0.039	0.017 J	0.04
1,3,5-Trimethylbenzene	NL	0.037 U	0.037	0.046 J	0.037	0.08 J	0.038
1,3-Butadiene	31.2	0.073 U	0.073	0.074 U	0.074	0.077 U	0.077
1,3-Dichlorobenzene	NL	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,4-Dichlorobenzene	85.1	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
1,4-Dioxane	187	0.03 J	0.038	0.024 J	0.039	0.04 U	0.04
Acetone	1080000 ^a	3.1 J	0.19	5.1	0.19	3 J	0.2
Acrolein	0.695 ^a	0.31 J	0.17	0.35 J	0.18	0.28 J	0.18
Benzene	120	0.12 J	0.073	0.15	0.074	0.53	0.077
Bromodichloromethane	25.3	0.038 U	0.038	0.039 U	0.039	0.019 J	0.04
Bromomethane	174	0.015 J	0.038	0.014 J	0.039	0.016 J	0.04
Carbon Tetrachloride	156	0.16	0.037	0.14	0.037	0.15	0.038
Chlorobenzene	1740	0.037 U	0.037	0.072 J	0.037	0.043 J	0.038
Chloroethane	348000	0.038 U	0.038	0.016 J	0.039	0.04 U	0.04
Chloroform	40.7	0.15 J	0.075	0.14 J	0.076	0.13 J	0.079
Chloromethane	520	0.073 U	0.073	0.074 U	0.074	0.077 U	0.077
cis-1,2-Dichloroethene	NA	0.037 U	0.037	0.047	0.037	0.016 J	0.038
cis-1,3-Dichloropropene	234	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
Cyclohexane	34800	0.57 U	0.57	0.58 U	0.58	0.6 U	0.6
Dibromochloromethane	34.7	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
Dichlorodifluoromethane (CFC 12)	3480	2.2	0.073	2.2	0.074	2.2	0.077
Dichloromethane (Methylene Chloride)	20900	0.13 J	0.073	0.15 J	0.074	0.096 J	0.077
Ethylbenzene	374	0.08 J	0.037	0.22	0.037	0.2	0.038
Hexachlorobutadiene	42.5	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
m,p-Xylenes	3480	0.2	0.54	0.54	0.55	0.52 U	0.57
Methyl tert-Butyl Ether	3600	0.038 U	0.075	0.039 U	0.076	0.04 U	0.079
Naphthalene	27.5	0.13 J	0.038	0.18	0.039	0.15 J	0.04
n-Heptane	NL	0.54 U	0.071	0.55 U	0.073	0.57 U	0.075
n-Hexane	24300	0.54 U	0.54	0.55 U	0.55	0.57 U	0.57
o-Xylene	3480	0.11 J	0.037	0.23	0.037	0.23	0.038
Styrene	34800	0.039 J	0.037	0.12 J	0.037	0.048 J	0.038
Tetrachloroethene	1390	0.098	0.037	0.13	0.037	0.15	0.038
Toluene	174000	0.34	0.075	1.2	0.076	0.57	0.079
TPH as Gasoline (mg/m ³) ^b	NA	4.5 U	4.5	4.5 U	4.5	4.5 U	4.5
trans-1,2-Dichloroethene	1390	0.038 U	0.038	0.039 U	0.039	0.04 U	0.04
trans-1,3-Dichloropropene	234	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038
Trichloroethene	69.5	0.042 J	0.037	0.25	0.037	0.081	0.038
Trichlorofluoromethane	24300	1.1	0.073	1.1	0.074	1.2	0.077
Vinyl Chloride	55.9	0.038 UJ	0.038	0.039 UJ	0.039	0.04 UJ	0.04

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-11. SVMW-23 Sampling Results (Winter)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 23-5 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 23-10 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 23-15 ($\mu\text{g}/\text{m}^3$) 2/28/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,1,2,2-Tetrachloroethane	16.1	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,1,2-Trichloroethane	6.95	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,1,2-Trichlorotrifluoroethane	1040000	0.37	0.031	0.38	0.032	0.41	0.043
1,1-Dichloroethane	585	0.016 J	0.031	0.032 U	0.032	0.043 U	0.043
1,1-Dichloroethene	6950	0.031 U	0.031	0.032 U	0.032	0.043 U	0.043
1,2,4-Trichlorobenzene	69.5	0.061 U	0.061	0.063 U	0.063	0.047 J	0.083
1,2,4-Trimethylbenzene	NA	0.2	0.03	0.19	0.031	0.73	0.041
1,2-Dibromo 3-Chloropropane	0.0563	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,2-Dibromoethane	1.56	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,2-Dichlorobenzene	6950	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,2-Dichloroethane	36	0.031 U	0.031	0.027 J	0.032	0.12	0.043
1,2-Dichloropropane	93.6	0.047	0.031	0.069	0.032	0.21	0.043
1,3,5-Trimethylbenzene	NL	0.073 J	0.03	0.064 J	0.031	0.063J	0.041
1,3-Butadiene	31.2	0.06 U	0.06	0.061 U	0.061	0.081 U	0.081
1,3-Dichlorobenzene	NL	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
1,4-Dichlorobenzene	85.1	0.032 J	0.03	0.041	0.031	0.098	0.041
1,4-Dioxane	187	0.031 U	0.031	0.032 U	0.032	0.043 U	0.043
Acetone	1080000 ^a	3.3 J	0.76	1.6 J	0.77	1.7 J	1
Acrolein	0.695 ^a	0.31	0.14	0.092 J	0.15	0.1 J	0.19
Benzene	120	0.077J	0.06	0.093 J	0.061	0.37	0.081
Bromodichloromethane	25.3	0.031 U	0.031	0.032 U	0.032	0.043 U	0.043
Bromomethane	174	0.036	0.031	0.013 J	0.032	0.021 J	0.043
Carbon Tetrachloride	156	0.086	0.03	0.12	0.031	0.28	0.041
Chlorobenzene	1740	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
Chloroethane	348000	0.031 U	0.031	0.032 U	0.032	0.026 J	0.043
Chloroform	40.7	0.079 J	0.061	0.11 J	0.063	0.45	0.083
Chloromethane	520	0.06 U	0.06	0.061 U	0.061	0.081 U	0.081
cis-1,2-Dichloroethene	NA	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
cis-1,3-Dichloropropene	234	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
Cyclohexane	34800	4.3	0.47	3.3	0.48	3.8	0.69
Dibromochloromethane	34.7	0.02 J	0.03	0.013 J	0.031	0.022 J	0.041
Dichlorodifluoromethane (CFC 12)	3480	3.1	0.03	3.3	0.031	3.8	0.041
Dichloromethane (Methylene Chloride)	20900	0.13 J	0.06	0.1 J	0.061	0.3	0.081
Ethylbenzene	374	0.27	0.03	0.2	0.031	0.53	0.041
Hexachlorobutadiene	42.5	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
m,p-Xylenes	3480	0.81	0.44	0.63	0.45	1.5	0.64
Methyl tert-Butyl Ether	3600	0.031 U	0.061	0.032 U	0.063	0.061	0.083
Naphthalene	27.5	0.22	0.031	0.14 J	0.032	0.17 J	0.043
n-Heptane	NL	1.6	0.059	1.1	0.06	1.4	0.079
n-Hexane	24300	2.1	0.44	1.7	0.45	2	0.64
o-Xylene	3480	0.47	0.03	0.37	0.031	1.5	0.041
Styrene	34800	0.18	0.06	0.14 J	0.061	0.14 J	0.081
Tetrachloroethene	1390	0.21	0.03	0.39	0.031	2	0.041
Toluene	174000	1.2	0.061	0.97	0.063	2	0.083
TPH as Gasoline (mg/m ³) ^b	NA	4.1 U	4.1	4.2 U	4.2	4.2 U	4.2
trans-1,2-Dichloroethene	1390	0.031 U	0.031	0.032 U	0.032	0.043 U	0.043
trans-1,3-Dichloropropene	234	0.03 U	0.03	0.031 U	0.031	0.041 U	0.041
Trichloroethene	69.5	0.31	0.03	0.18	0.031	0.21	0.041
Trichlorofluoromethane	24300	2.1	0.03	2.2	0.031	2.8	0.041
Vinyl Chloride	55.9	0.031 U	0.034	0.032 U	0.035	0.043 U	0.046

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-12. Winter Sampling – Non-COPC Exceedances

Sample Location ID	Field Sample ID	Sample Date	Sample Type	Analytical Method	Analyte	CAS #	Result ($\mu\text{g}/\text{m}^3$)	Final Qualifier	Validation Reason Code	VISL
SVMW-18	SVMW-18-5	3/2/2022	N	TO-15 SIM	Acrolein	107-02-8	2.3	J		0.695 ^a

^a The screening limit used for acrolein is the Residential Noncancer from NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume I Soil Screening Guidance for Human Health Risk Assessments, June 2022.

FD = field duplicate

ID = identification

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

N = normal / native field sample

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department)

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Table 6-13. SVMW-16 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 16-5-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 16-10-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 16-15-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,1,2,2-Tetrachloroethane	16.1	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,1,2-Trichloroethane	6.95	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,1,2-Trichlorotrifluoroethane	1040000	16	0.034	28	0.033	41	0.034
1,1-Dichloroethane	585	0.077	0.034	0.068	0.033	0.1	0.034
1,1-Dichloroethene	6950	0.034 U	0.034	0.033 U	0.033	0.034 U	0.034
1,2,4-Trichlorobenzene	69.5	0.037 J	0.066	0.038 J	0.065	0.038 J	0.066
1,2,4-Trimethylbenzene	NA	0.39	0.032	0.38	0.032	0.35	0.032
1,2-Dibromo 3-Chloropropane	0.0563	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,2-Dibromoethane	1.56	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,2-Dichlorobenzene	6950	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,2-Dichloroethane	36	0.053 J	0.034	0.033 U	0.033	0.029 J	0.034
1,2-Dichloropropane	93.6	0.022 J	0.034	0.026 J	0.033	0.029 J	0.034
1,3,5-Trimethylbenzene	NL	0.073 J	0.032	0.052 J	0.032	0.097 J	0.032
1,3-Butadiene	31.2	0.065 U	0.065	0.063 U	0.063	0.064 U	0.064
1,3-Dichlorobenzene	NL	0.093 J	0.032	0.14	0.032	0.15	0.032
1,4-Dichlorobenzene	85.1	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,4-Dioxane	187	0.034 U	0.034	0.033 U	0.033	0.034 U	0.034
Acetone	1080000 ^a	13	0.82	11	0.8	15	0.81
Acrolein	0.695 ^a	1.3 J	0.15	1.2	0.15	1.1	0.15
Benzene	120	0.19	0.065	0.098 J	0.063	0.29	0.064
Bromodichloromethane	25.3	0.081	0.034	0.38	0.033	0.71	0.034
Bromomethane	174	0.087 J	0.034	0.095	0.033	0.21	0.034
Carbon Tetrachloride	156	4.2	0.032	7.2	0.032	11	0.032
Chlorobenzene	1740	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
Chloroethane	348000	0.034 U	0.034	0.018 J	0.033	0.027 J	0.034
Chloroform	40.7	0.27 J	0.066	1.1	0.065	2.3	0.066
Chloromethane	520	0.065 U	0.065	0.063 U	0.063	0.064 U	0.064
cis-1,2-Dichloroethene	NA	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
cis-1,3-Dichloropropene	234	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
Cyclohexane	34800	0.67 U	0.67	0.64 U	0.64	0.65 U	0.65
Dibromochloromethane	34.7	0.014 J	0.032	0.073	0.032	0.18	0.032
Dichlorodifluoromethane (CFC 12)	3480	2.1	0.032	2.1	0.032	2.1	0.032
Dichloromethane (Methylene Chloride)	20900	0.11 J	0.065	0.052 J	0.063	0.19	0.064
Ethylbenzene	374	0.22 J	0.032	0.22	0.032	0.29	0.032
Hexachlorobutadiene	42.5	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
m,p-Xylenes	3480	0.63 UJ	0.63	0.6 U	0.6	0.61 U	0.61
Methyl tert-Butyl Ether	3600	0.38 J	0.066	0.3	0.065	0.47	0.066
Naphthalene	27.5	0.59 J	0.034	0.55	0.033	0.86	0.034
n-Heptane	NL	0.51	0.063	0.32	0.062	0.47	0.063
n-Hexane	24300	0.63 UJ	0.63	0.6 U	0.6	0.61 U	0.61
o-Xylene	3480	0.22 J	0.032	0.22	0.032	0.29	0.032
Styrene	34800	0.098 J	0.065	0.071 J	0.063	0.14 J	0.064
Tetrachloroethene	1390	0.21	0.032	0.26	0.032	0.32	0.032
Toluene	174000	0.74 J	0.066	0.34	0.065	0.98	0.066
TPH as Gasoline (mg/m ³) ^b	NA	5.6 J	4.5	5.9 J	4.4	6 J	4.4
trans-1,2-Dichloroethene	1390	0.034 U	0.034	0.033 U	0.033	0.034 U	0.034
trans-1,3-Dichloropropene	234	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
Trichloroethene	69.5	0.032 U	0.032	0.032 U	0.032	0.016 J	0.032
Trichlorofluoromethane	24300	1.7	0.032	1.9	0.032	2.2	0.032
Vinyl Chloride	55.9	0.037 U	0.037	0.036 U	0.036	0.021 J	0.037

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-14. SVMW-17 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 17-5-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 17-10-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 17-15-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.016 J	0.033	0.026 J	0.032	0.033 U	0.033
1,1,2,2-Tetrachloroethane	16.1	0.033 U	0.033	0.032 U	0.032	0.019 J	0.033
1,1,2-Trichloroethane	6.95	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
1,1,2-Trichlorotrifluoroethane	1040000	0.49	0.035	0.53	0.034	0.56	0.034
1,1-Dichloroethane	585	0.096	0.035	0.098	0.034	0.083	0.034
1,1-Dichloroethene	6950	0.035 U	0.035	0.034 U	0.034	0.034 U	0.034
1,2,4-Trichlorobenzene	69.5	0.068 U	0.068	0.045 J	0.066	0.068 J	0.067
1,2,4-Trimethylbenzene	NA	0.34	0.033	0.33	0.032	0.28	0.033
1,2-Dibromo 3-Chloropropane	0.0563	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
1,2-Dibromoethane	1.56	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
1,2-Dichlorobenzene	6950	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
1,2-Dichloroethane	36	0.027 J	0.035	0.034 U	0.034	0.034 U	0.034
1,2-Dichloropropane	93.6	0.016 J	0.035	0.022 J	0.034	0.021 J	0.034
1,3,5-Trimethylbenzene	NL	0.076 J	0.033	0.11 J	0.032	0.11 J	0.033
1,3-Butadiene	31.2	0.066 U	0.066	0.065 U	0.065	0.065 U	0.065
1,3-Dichlorobenzene	NL	0.098	0.033	0.14	0.032	0.16	0.033
1,4-Dichlorobenzene	85.1	0.033 U	0.033	0.035 J	0.032	0.033 U	0.033
1,4-Dioxane	187	0.035 U	0.035	0.034 U	0.034	0.034 J	0.034
Acetone	1080000 ^a	14	0.83	9.5	0.82	12	0.82
Acrolein	0.695 ^a	1.4	0.16	0.66	0.15	0.64	0.16
Benzene	120	0.1 J	0.066	0.15	0.065	0.14	0.065
Bromodichloromethane	25.3	0.13	0.035	0.3	0.034	0.2	0.034
Bromomethane	174	0.12	0.035	0.16	0.034	0.09	0.034
Carbon Tetrachloride	156	0.32	0.033	0.33	0.032	0.38	0.033
Chlorobenzene	1740	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
Chloroethane	348000	0.025 J	0.035	0.018 J	0.034	0.034 U	0.034
Chloroform	40.7	0.44	0.068	0.92	0.066	0.92	0.067
Chloromethane	520	0.066 U	0.066	0.065 U	0.065	0.065 U	0.065
cis-1,2-Dichloroethene	NA	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
cis-1,3-Dichloropropene	234	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
Cyclohexane	34800	0.660 U	0.66	0.65 U	0.65	0.580 U	0.58
Dibromochloromethane	34.7	0.021 J	0.033	0.046	0.032	0.022 J	0.033
Dichlorodifluoromethane (CFC 12)	3480	2.1	0.033	2.1	0.032	1.8	0.033
Dichloromethane (Methylene Chloride)	20900	0.051 J	0.066	0.031 J	0.065	0.037 J	0.065
Ethylbenzene	374	0.18	0.033	0.25	0.032	0.23	0.033
Hexachlorobutadiene	42.5	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
m,p-Xylenes	3480	0.62 U	0.62	0.61 U	0.61	0.55 U	0.55
Methyl tert-Butyl Ether	3600	0.34	0.068	0.37	0.066	0.38	0.067
Naphthalene	27.5	0.72	0.035	0.74	0.034	0.096	0.034
n-Heptane	NL	0.52	0.064	0.48	0.063	1.1	0.064
n-Hexane	24300	0.62 U	0.62	0.61 U	0.61	0.55 U	0.55
o-Xylene	3480	0.22	0.033	0.26	0.032	0.26	0.033
Styrene	34800	0.1 J	0.066	0.094 J	0.065	0.11 J	0.065
Tetrachloroethene	1390	0.16	0.033	0.2	0.032	0.29	0.033
Toluene	174000	0.35	0.068	0.42	0.066	0.38	0.067
TPH as Gasoline (mg/m^3) ^b	NA	5.4 J	4.6	6.2 J	4.5	6.6 J	4.5
trans-1,2-Dichloroethene	1390	0.035 U	0.035	0.034 U	0.034	0.034 U	0.034
trans-1,3-Dichloropropene	234	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
Trichloroethene	69.5	0.033 U	0.033	0.032 U	0.032	0.033 U	0.033
Trichlorofluoromethane	24300	1.1	0.033	1.2	0.032	1.1	0.033
Vinyl Chloride	55.9	0.038 U	0.038	0.037 U	0.037	0.037 U	0.037

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-15. SVMW-18 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 18-5-2 ($\mu\text{g}/\text{m}^3$) 8/10/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 18-10-2 ($\mu\text{g}/\text{m}^3$) 8/10/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 18-15-2 ($\mu\text{g}/\text{m}^3$) 8/10/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.015 J	0.032	0.014 J	0.031	0.015 J	0.031
1,1,2,2-Tetrachloroethane	16.1	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
1,1,2-Trichloroethane	6.95	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
1,1,2-Trichlorotrifluoroethane	1040000	0.41	0.033	0.41	0.033	0.4	0.033
1,1-Dichloroethane	585	0.051	0.033	0.073	0.033	0.052	0.033
1,1-Dichloroethene	6950	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
1,2,4-Trichlorobenzene	69.5	0.065 U	0.065	0.031 J	0.064	0.064 U	0.064
1,2,4-Trimethylbenzene	NA	0.34	0.032	0.28	0.031	0.34	0.031
1,2-Dibromo 3-Chloropropane	0.0563	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
1,2-Dibromoethane	1.56	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
1,2-Dichlorobenzene	6950	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
1,2-Dichloroethane	36	0.033 U	0.033	0.033 J	0.033	0.042	0.033
1,2-Dichloropropane	93.6	0.017 J	0.033	0.018 J	0.033	0.018 J	0.033
1,3,5-Trimethylbenzene	NL	0.077 J	0.032	0.069 J	0.031	0.052 J	0.031
1,3-Butadiene	31.2	0.063 U	0.063	0.063 U	0.063	0.063 U	0.063
1,3-Dichlorobenzene	NL	0.092	0.032	0.08	0.031	0.083	0.031
1,4-Dichlorobenzene	85.1	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
1,4-Dioxane	187	0.06 J	0.033	0.37	0.033	0.034 J	0.033
Acetone	1080000 ^a	5	0.8	20	0.79	5.9	0.79
Acrolein	0.695 ^a	0.18 J	0.15	2.7	0.15	0.45	0.15
Benzene	120	0.088 J	0.063	0.2	0.063	0.12	0.063
Bromodichloromethane	25.3	0.026 J	0.033	0.039	0.033	0.052	0.033
Bromomethane	174	0.062	0.033	0.38	0.033	0.062	0.033
Carbon Tetrachloride	156	0.3	0.032	0.23	0.031	0.2	0.031
Chlorobenzene	1740	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
Chloroethane	348000	0.033 U	0.033	0.2	0.033	0.012 J	0.033
Chloroform	40.7	0.089 J	0.065	0.19	0.064	0.29	0.064
Chloromethane	520	0.063 U	0.063	0.063 U	0.063	0.063 U	0.063
cis-1,2-Dichloroethene	NA	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
cis-1,3-Dichloropropene	234	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
Cyclohexane	34800	0.53 U	0.53	0.56 U	0.56	0.49 U	0.49
Dibromochloromethane	34.7	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
Dichlorodifluoromethane (CFC 12)	3480	1.9	0.032	2.2	0.031	2.1	0.031
Dichloromethane (Methylene Chloride)	20900	0.027 J	0.063	0.054 J	0.063	0.049 J	0.063
Ethylbenzene	374	0.17	0.032	0.17	0.031	0.19	0.031
Hexachlorobutadiene	42.5	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
m,p-Xylenes	3480	0.5 U	0.5	0.22 J	0.52	0.46 U	0.46
Methyl tert-Butyl Ether	3600	0.29	0.065	0.28	0.064	0.32	0.064
Naphthalene	27.5	0.049	0.033	0.56	0.033	0.46	0.033
n-Heptane	NL	0.56	0.062	0.45	0.061	0.28	0.061
n-Hexane	24300	0.5 U	0.5	0.52 U	0.52	0.46 U	0.46
o-Xylene	3480	0.2	0.032	0.18	0.031	0.2	0.031
Styrene	34800	0.074 J	0.063	0.25	0.063	0.078 J	0.063
Tetrachloroethene	1390	0.079	0.032	0.067	0.031	0.091	0.031
Toluene	174000	0.25	0.065	0.38	0.064	0.41	0.064
TPH as Gasoline (mg/m ³) ^b	NA	4.8 J	4.4	6 J	4.3	5.8 J	4.3
trans-1,2-Dichloroethene	1390	0.02 J	0.033	0.033 U	0.033	0.033 U	0.033
trans-1,3-Dichloropropene	234	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
Trichloroethene	69.5	0.032 U	0.032	0.031 U	0.031	0.031 U	0.031
Trichlorofluoromethane	24300	0.99	0.032	1	0.031	1	0.031
Vinyl Chloride	55.9	0.036 U	0.036	0.027 J	0.036	0.036 U	0.036

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-16. SVMW-19 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 19-5-2 ($\mu\text{g}/\text{m}^3$) 8/10/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 19-10-2 ($\mu\text{g}/\text{m}^3$) 8/10/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 19-15-2 ($\mu\text{g}/\text{m}^3$) 8/10/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.11	0.031	0.35	0.032	0.41	0.031
1,1,2,2-Tetrachloroethane	16.1	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,1,2-Trichloroethane	6.95	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,1,2-Trichlorotrifluoroethane	1040000	0.4	0.033	0.43	0.033	0.4	0.033
1,1-Dichloroethane	585	0.046	0.033	0.066	0.033	0.12	0.033
1,1-Dichloroethene	6950	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
1,2,4-Trichlorobenzene	69.5	0.064 U	0.064	0.065 U	0.065	0.064 U	0.064
1,2,4-Trimethylbenzene	NA	0.34	0.031	0.33	0.032	0.28	0.031
1,2-Dibromo 3-Chloropropane	0.0563	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,2-Dibromoethane	1.56	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,2-Dichlorobenzene	6950	0.048	0.031	0.032 U	0.032	0.031 U	0.031
1,2-Dichloroethane	36	0.026 J	0.033	0.014 J	0.033	0.037 J	0.033
1,2-Dichloropropane	93.6	0.012 J	0.033	0.012 J	0.033	0.033 U	0.033
1,3,5-Trimethylbenzene	NL	0.049 J	0.031	0.044 J	0.032	0.034 J	0.031
1,3-Butadiene	31.2	0.063 U	0.063	0.063 U	0.063	0.062 U	0.062
1,3-Dichlorobenzene	NL	0.071	0.031	0.073	0.032	0.028 J	0.031
1,4-Dichlorobenzene	85.1	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
1,4-Dioxane	187	0.017 J	0.033	0.11 J	0.033	0.033 U	0.033
Acetone	1080000 ^a	6.4	0.79	10	0.8	6.4	0.78
Acrolein	0.695 ^a	0.35	0.15	1.3	0.15	0.62	0.15
Benzene	120	0.064 J	0.063	0.063 J	0.063	0.065 J	0.062
Bromodichloromethane	25.3	0.014 J	0.033	0.034 J	0.033	0.054	0.033
Bromomethane	174	0.071	0.033	0.12	0.033	0.036 J	0.033
Carbon Tetrachloride	156	0.31	0.031	0.27	0.032	0.23	0.031
Chlorobenzene	1740	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Chloroethane	348000	0.015 J	0.033	0.032 J	0.033	0.033 U	0.033
Chloroform	40.7	0.046 J	0.064	0.14 J	0.065	0.22	0.064
Chloromethane	520	0.063 U	0.063	0.061 J	0.063	0.062 U	0.062
cis-1,2-Dichloroethene	NA	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
cis-1,3-Dichloropropene	234	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Cyclohexane	34800	0.49 U	0.49	0.5 U	0.5	0.53 U	0.53
Dibromochloromethane	34.7	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Dichlorodifluoromethane (CFC 12)	3480	1.9	0.031	2.1	0.032	1.9	0.031
Dichloromethane (Methylene Chloride)	20900	0.02 J	0.063	0.027 J	0.063	0.016 J	0.062
Ethylbenzene	374	0.13 J	0.031	0.14 J	0.032	0.055 J	0.031
Hexachlorobutadiene	42.5	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
m,p-Xylenes	3480	0.46 U	0.46	0.47 U	0.47	0.5 U	0.5
Methyl tert-Butyl Ether	3600	0.22	0.064	0.28	0.065	0.13 J	0.064
Naphthalene	27.5	0.35	0.033	0.53	0.033	0.82	0.033
n-Heptane	NL	0.63	0.061	0.45	0.062	0.47	0.061
n-Hexane	24300	0.46 U	0.46	0.47 U	0.47	0.5 U	0.5
o-Xylene	3480	0.16	0.031	0.17	0.032	0.11 J	0.031
Styrene	34800	0.067 J	0.063	0.06 J	0.063	0.051 J	0.062
Tetrachloroethene	1390	0.098	0.031	0.069	0.032	0.079	0.031
Toluene	174000	0.19	0.064	0.2	0.065	0.14 J	0.064
TPH as Gasoline (mg/m^3) ^b	NA	5.1 J	4.3	5.2 J	4.4	3.1 J	4.3
trans-1,2-Dichloroethene	1390	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
trans-1,3-Dichloropropene	234	0.031 U	0.031	0.032 U	0.032	0.031 U	0.031
Trichloroethene	69.5	0.031 U	0.031	0.022 J	0.032	0.036 J	0.031
Trichlorofluoromethane	24300	0.97	0.031	1	0.032	1	0.031
Vinyl Chloride	55.9	0.036 U	0.036	0.036 U	0.036	0.036 U	0.036

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-17. SVMW-20 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 20-5-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 20-10-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 20-15-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
1,1,2,2-Tetrachloroethane	16.1	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
1,1,2-Trichloroethane	6.95	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
1,1,2-Trichlorotrifluoroethane	1040000	0.4	0.034	0.42	0.034	0.42	0.035
1,1-Dichloroethane	585	0.068	0.034	0.054	0.034	0.05 J	0.035
1,1-Dichloroethene	6950	0.034 U	0.034	0.034 U	0.034	0.035 U	0.035
1,2,4-Trichlorobenzene	69.5	0.057 J	0.066	0.067 U	0.067	0.068 U	0.068
1,2,4-Trimethylbenzene	NA	0.34	0.032	0.38	0.033	0.35	0.033
1,2-Dibromo 3-Chloropropane	0.0563	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
1,2-Dibromoethane	1.56	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
1,2-Dichlorobenzene	6950	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
1,2-Dichloroethane	36	0.026 J	0.034	0.069	0.034	0.015 J	0.035
1,2-Dichloropropane	93.6	0.017 J	0.034	0.034 U	0.034	0.016 J	0.035
1,3,5-Trimethylbenzene	NL	0.061 J	0.032	0.085 J	0.033	0.067 J	0.033
1,3-Butadiene	31.2	0.065 U	0.065	0.065 U	0.065	0.066 U	0.066
1,3-Dichlorobenzene	NL	0.12	0.032	0.059	0.033	0.08	0.033
1,4-Dichlorobenzene	85.1	0.032 U	0.032	0.033 U	0.033	0.033 UJ	0.033
1,4-Dioxane	187	0.066 J	0.034	0.15 J	0.034	0.052 J	0.035
Acetone	1080000 ^a	14	0.82	9.8	0.82	9.4 J	0.83
Acrolein	0.695 ^a	1.3	0.15	0.86	0.16	0.87 J	0.16
Benzene	120	0.16	0.065	0.15	0.065	0.15 J	0.066
Bromodichloromethane	25.3	0.075	0.034	0.081	0.034	0.079 J	0.035
Bromomethane	174	0.086	0.034	0.05	0.034	0.095 J	0.035
Carbon Tetrachloride	156	0.14	0.032	0.16	0.033	0.16	0.033
Chlorobenzene	1740	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
Chloroethane	348000	0.16	0.034	0.033 J	0.034	0.035 J	0.035
Chloroform	40.7	1.2	0.066	1.4	0.067	1.5 J	0.068
Chloromethane	520	0.065 U	0.065	0.065 U	0.065	0.066 U	0.066
cis-1,2-Dichloroethene	NA	0.032 U	0.032	0.033 U	0.033	0.033 UJ	0.033
cis-1,3-Dichloropropene	234	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
Cyclohexane	34800	0.51 U	0.51	0.71 U	0.71	0.52 U	0.52
Dibromochloromethane	34.7	0.011 J	0.032	0.033 U	0.033	0.033 U	0.033
Dichlorodifluoromethane (CFC 12)	3480	1.8	0.032	1.9	0.033	1.9 J	0.033
Dichloromethane (Methylene Chloride)	20900	0.039 J	0.065	0.088 J	0.065	0.044 J	0.066
Ethylbenzene	374	0.19	0.032	0.12 J	0.033	0.16 J	0.033
Hexachlorobutadiene	42.5	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
m,p-Xylenes	3480	0.48 U	0.48	0.67 U	0.67	0.49 UJ	0.49
Methyl tert-Butyl Ether	3600	0.32	0.066	0.28	0.067	0.28 J	0.068
Naphthalene	27.5	0.53	0.034	0.37	0.034	0.33 J	0.035
n-Heptane	NL	0.69	0.063	0.72	0.064	0.28	0.064
n-Hexane	24300	0.48 U	0.48	0.67 U	0.67	0.49 U	0.49
o-Xylene	3480	0.28	0.032	0.26	0.033	0.18 J	0.033
Styrene	34800	0.11 J	0.065	0.088 J	0.065	0.081 J	0.066
Tetrachloroethene	1390	0.44	0.032	0.28	0.033	0.3 J	0.033
Toluene	174000	0.33	0.066	0.37	0.067	0.38 J	0.068
TPH as Gasoline (mg/m ³) ^b	NA	8 J	4.5	6.4 J	4.5	7 J	4.6
trans-1,2-Dichloroethene	1390	0.034 U	0.034	0.034 U	0.034	0.035 U	0.035
trans-1,3-Dichloropropene	234	0.032 U	0.032	0.033 U	0.033	0.033 U	0.033
Trichloroethene	69.5	0.015 J	0.032	0.028 J	0.033	0.033 U	0.033
Trichlorofluoromethane	24300	1	0.032	1.1	0.033	1.1 J	0.033
Vinyl Chloride	55.9	0.037 U	0.037	0.037 U	0.037	0.038 U	0.038

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-18. SVMW-21 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 21-5-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 21-10-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 21-15-2 ($\mu\text{g}/\text{m}^3$) 8/9/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.014 J	0.032	0.018 J	0.032	0.017 J	0.032
1,1,2,2-Tetrachloroethane	16.1	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,1,2-Trichloroethane	6.95	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,1,2-Trichlorotrifluoroethane	1040000	0.41	0.033	0.42	0.033	0.43	0.033
1,1-Dichloroethane	585	0.062	0.033	0.061	0.033	0.05	0.033
1,1-Dichloroethene	6950	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
1,2,4-Trichlorobenzene	69.5	0.065 U	0.065	0.065 U	0.065	0.065 U	0.065
1,2,4-Trimethylbenzene	NA	0.37	0.032	0.37	0.032	0.38	0.032
1,2-Dibromo 3-Chloropropane	0.0563	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,2-Dibromoethane	1.56	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,2-Dichlorobenzene	6950	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,2-Dichloroethane	36	0.028 J	0.033	0.013 J	0.033	0.023 J	0.033
1,2-Dichloropropane	93.6	0.019 J	0.033	0.034 J	0.033	0.036 J	0.033
1,3,5-Trimethylbenzene	NL	0.056 J	0.032	0.061 J	0.032	0.054 J	0.032
1,3-Butadiene	31.2	0.063 U	0.063	0.063 U	0.063	0.063 U	0.063
1,3-Dichlorobenzene	NL	0.091	0.032	0.094 J	0.032	0.088	0.032
1,4-Dichlorobenzene	85.1	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
1,4-Dioxane	187	0.054 J	0.033	0.13 J	0.033	0.033 U	0.033
Acetone	1080000 ^a	7.4	0.8	9.5	0.8	7.4	0.8
Acrolein	0.695 ^a	0.64	0.15	0.71 J	0.15	0.36	0.15
Benzene	120	0.15	0.063	0.25 J	0.063	0.15	0.063
Bromodichloromethane	25.3	0.13	0.033	0.16	0.033	0.22	0.033
Bromomethane	174	0.085	0.033	0.083	0.033	0.12	0.033
Carbon Tetrachloride	156	0.16	0.032	0.15	0.032	0.13	0.032
Chlorobenzene	1740	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
Chloroethane	348000	0.038	0.033	0.021 J	0.033	0.033 U	0.033
Chloroform	40.7	1.6	0.065	1.7	0.065	1.6	0.065
Chloromethane	520	0.041 J	0.063	0.063 UJ	0.063	0.063 U	0.063
cis-1,2-Dichloroethene	NA	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
cis-1,3-Dichloropropene	234	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
Cyclohexane	34800	0.7 U	0.7	0.63 U	0.63	0.65 U	0.65
Dibromochloromethane	34.7	0.01 J	0.032	0.012 J	0.032	0.032 U	0.032
Dichlorodifluoromethane (CFC 12)	3480	2.6	0.032	2.6	0.032	2.7	0.032
Dichloromethane (Methylene Chloride)	20900	0.038 J	0.063	0.049 J	0.063	0.036 J	0.063
Ethylbenzene	374	0.22	0.032	0.23	0.032	0.2	0.032
Hexachlorobutadiene	42.5	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
m,p-Xylenes	3480	0.66 U	0.66	0.59 U	0.59	0.61 U	0.61
Methyl tert-Butyl Ether	3600	0.35	0.065	0.35	0.065	0.35	0.065
Naphthalene	27.5	0.45	0.033	0.43 J	0.033	0.4	0.033
n-Heptane	NL	0.62	0.062	0.17	0.062	0.44	0.062
n-Hexane	24300	0.66 U	0.66	0.59 U	0.59	0.61 U	0.61
o-Xylene	3480	0.23	0.032	0.22	0.032	0.22	0.032
Styrene	34800	0.081 J	0.063	0.078 J	0.063	0.072 J	0.063
Tetrachloroethene	1390	2.7	0.032	2.4	0.032	1.7	0.032
Toluene	174000	0.25	0.065	0.52 J	0.065	0.44	0.065
TPH as Gasoline (mg/m^3) ^b	NA	5.5 J	4.4	5.8 J	4.4	5.3 J	4.4
trans-1,2-Dichloroethene	1390	0.033 U	0.033	0.033 U	0.033	0.033 U	0.033
trans-1,3-Dichloropropene	234	0.032 U	0.032	0.032 U	0.032	0.032 U	0.032
Trichloroethene	69.5	0.2	0.032	0.089	0.032	0.041	0.032
Trichlorofluoromethane	24300	1.3	0.032	1.3	0.032	1.4	0.032
Vinyl Chloride	55.9	0.036 U	0.036	0.036 U	0.036	0.036 U	0.036

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-19. SVMW-22 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 22-5-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 22-10-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 22-15-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
1,1,2,2-Tetrachloroethane	16.1	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
1,1,2-Trichloroethane	6.95	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
1,1,2-Trichlorotrifluoroethane	1040000	0.37	0.036	0.37	0.034	0.41	0.033
1,1-Dichloroethane	585	0.066	0.036	0.045	0.034	0.095	0.033
1,1-Dichloroethene	6950	0.036 U	0.036	0.034 U	0.034	0.033 U	0.033
1,2,4-Trichlorobenzene	69.5	0.07 U	0.07	0.1	0.066	0.049 J	0.065
1,2,4-Trimethylbenzene	NA	0.340	0.034	0.38	0.032	0.4	0.032
1,2-Dibromo 3-Chloropropane	0.0563	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
1,2-Dibromoethane	1.56	0.034 U	0.034	0.033 J	0.032	0.032 U	0.032
1,2-Dichlorobenzene	6950	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
1,2-Dichloroethane	36	0.072	0.036	0.038 J	0.034	0.098	0.033
1,2-Dichloropropane	93.6	0.012 J	0.036	0.019 J	0.034	0.02 J	0.033
1,3,5-Trimethylbenzene	NL	0.054 J	0.034	0.051 J	0.032	0.042 J	0.032
1,3-Butadiene	31.2	0.068 U	0.068	0.064 U	0.064	0.063 U	0.063
1,3-Dichlorobenzene	NL	0.071	0.034	0.12	0.032	0.13	0.032
1,4-Dichlorobenzene	85.1	0.034 U	0.034	0.058	0.032	0.032 U	0.032
1,4-Dioxane	187	0.097 J	0.036	0.034 U	0.034	0.033 U	0.033
Acetone	1080000 ^a	66	0.86	11	0.81	16	0.8
Acrolein	0.695 ^a	2.2	0.16	1.5	0.15	1.8	0.15
Benzene	120	0.19	0.068	0.14	0.064	0.36	0.063
Bromodichloromethane	25.3	0.027 J	0.036	0.03 J	0.034	0.03 J	0.033
Bromomethane	174	0.074	0.036	0.079	0.034	0.062	0.033
Carbon Tetrachloride	156	0.18	0.034	0.23	0.032	0.21	0.032
Chlorobenzene	1740	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
Chloroethane	348000	0.044	0.036	0.019 J	0.034	0.027 J	0.033
Chloroform	40.7	0.37	0.07	0.28	0.066	0.36	0.065
Chloromethane	520	0.068 U	0.068	0.042 J	0.064	0.063 U	0.063
cis-1,2-Dichloroethene	NA	0.034 U	0.034	0.019 J	0.032	0.032 U	0.032
cis-1,3-Dichloropropene	234	0.034 U	0.034	0.022 J	0.032	0.032 U	0.032
Cyclohexane	34800	0.53 U	0.53	0.65 U	0.65	0.64 U	0.64
Dibromochloromethane	34.7	0.034 U	0.034	0.011 J	0.032	0.032 U	0.032
Dichlorodifluoromethane (CFC 12)	3480	2.2	0.034	2.1	0.032	2.5	0.032
Dichloromethane (Methylene Chloride)	20900	0.027 J	0.068	0.096 J	0.064	0.026 J	0.063
Ethylbenzene	374	0.12 J	0.034	0.22	0.032	0.23	0.032
Hexachlorobutadiene	42.5	0.034 U	0.034	0.032 U	0.032	0.032 U	0.032
m,p-Xylenes	3480	0.5 U	0.5	0.61 U	0.61	0.6 U	0.6
Methyl tert-Butyl Ether	3600	0.25	0.07	0.36	0.066	0.34	0.065
Naphthalene	27.5	0.5	0.036	0.36	0.034	0.71	0.033
n-Heptane	NL	0.68	0.066	0.55	0.063	0.42	0.062
n-Hexane	24300	0.5 U	0.5	0.61 U	0.61	0.6 U	0.6
o-Xylene	3480	0.19	0.034	0.23	0.032	0.21	0.032
Styrene	34800	0.093 J	0.068	0.13 J	0.064	0.076 J	0.063
Tetrachloroethene	1390	0.23	0.034	0.16	0.032	0.22	0.032
Toluene	174000	0.34	0.07	0.34	0.066	0.42	0.065
TPH as Gasoline (mg/m^3) ^b	NA	7.4 J	4.7	5.2 J	4.4	4.4 J	4.4
trans-1,2-Dichloroethene	1390	0.036 U	0.036	0.022 J	0.034	0.033 U	0.033
trans-1,3-Dichloropropene	234	0.034 U	0.034	0.057 J	0.032	0.032 U	0.032
Trichloroethene	69.5	0.029 J	0.034	0.029 J	0.032	0.012 J	0.032
Trichlorofluoromethane	24300	1.2	0.034	1.2	0.032	1.4	0.032
Vinyl Chloride	55.9	0.039 U	0.039	0.037 U	0.037	0.036 U	0.036

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-20. SVMW-23 Sampling Results (Summer)

Compound	VISL ($\mu\text{g}/\text{m}^3$)	SVMW- 23-5-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 23-10-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)	SVMW- 23-15-2 ($\mu\text{g}/\text{m}^3$) 8/8/2022	LOD ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	174000	0.023 J	0.034	0.02 J	0.033	0.049 U	0.049
1,1,2,2-Tetrachloroethane	16.1	0.034 U	0.034	0.033 U	0.033	0.031 J	0.049
1,1,2-Trichloroethane	6.95	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
1,1,2-Trichlorotrifluoroethane	1040000	0.4	0.036	0.42	0.035	0.44	0.051
1,1-Dichloroethane	585	0.068	0.036	0.066	0.035	0.11	0.051
1,1-Dichloroethene	6950	0.036 U	0.036	0.035 U	0.035	0.051 U	0.051
1,2,4-Trichlorobenzene	69.5	0.037 J	0.07	0.1	0.068	0.099 U	0.099
1,2,4-Trimethylbenzene	NA	0.4	0.034	0.43	0.033	0.51	0.049
1,2-Dibromo 3-Chloropropane	0.0563	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
1,2-Dibromoethane	1.56	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
1,2-Dichlorobenzene	6950	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
1,2-Dichloroethane	36	0.036 U	0.036	0.038 J	0.035	0.039 J	0.051
1,2-Dichloropropane	93.6	0.045	0.036	0.058	0.035	0.077	0.051
1,3,5-Trimethylbenzene	NL	0.065 J	0.034	0.097 J	0.033	0.12 J	0.049
1,3-Butadiene	31.2	0.068 U	0.068	0.066 U	0.066	0.097 U	0.097
1,3-Dichlorobenzene	NL	0.13	0.034	0.16	0.033	0.21	0.049
1,4-Dichlorobenzene	85.1	0.034 U	0.034	0.039 J	0.033	0.049 U	0.049
1,4-Dioxane	187	0.036 U	0.036	0.035 U	0.035	0.051 U	0.051
Acetone	1080000 ^a	8.5	0.86	11	0.84	11	1.2
Acrolein	0.695 ^a	0.44	0.16	0.79	0.16	0.27 J	0.23
Benzene	120	0.36	0.068	0.53	0.066	0.18	0.097
Bromodichloromethane	25.3	0.012 J	0.036	0.035 U	0.035	0.051 U	0.051
Bromomethane	174	0.041	0.036	0.083	0.035	0.07	0.051
Carbon Tetrachloride	156	0.11	0.034	0.13	0.033	0.19	0.049
Chlorobenzene	1740	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
Chloroethane	348000	0.036 U	0.036	0.018 J	0.035	0.051 U	0.051
Chloroform	40.7	0.11 J	0.07	0.17	0.068	0.41	0.099
Chloromethane	520	0.068 U	0.068	0.066 U	0.066	0.097 U	0.097
cis-1,2-Dichloroethene	NA	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
cis-1,3-Dichloropropene	234	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
Cyclohexane	34800	0.53 U	0.53	0.76 J	0.52	0.76 U	0.76
Dibromochloromethane	34.7	0.034 U	0.034	0.033 U	0.033	0.031 J	0.049
Dichlorodifluoromethane (CFC 12)	3480	3.3	0.034	4	0.033	5.9	0.049
Dichloromethane (Methylene Chloride)	20900	0.054 J	0.068	0.52	0.066	0.14 J	0.097
Ethylbenzene	374	0.27	0.034	0.42	0.033	0.4	0.049
Hexachlorobutadiene	42.5	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
m,p-Xylenes	3480	0.5 U	0.5	0.49 U	0.49	0.72 U	0.72
Methyl tert-Butyl Ether	3600	0.41	0.07	0.68	0.068	0.61	0.099
Naphthalene	27.5	0.57	0.036	0.51	0.035	0.9	0.051
n-Heptane	NL	0.46	0.066	0.47	0.065	0.34	0.095
n-Hexane	24300	0.5 U	0.5	0.21 J	0.49	0.72 U	0.72
o-Xylene	3480	0.28	0.034	0.39	0.033	0.4	0.049
Styrene	34800	0.14 J	0.068	0.44	0.066	0.16 J	0.097
Tetrachloroethene	1390	0.47	0.034	0.45	0.033	0.51	0.049
Toluene	174000	0.54	0.07	3.1	0.068	0.83	0.099
TPH as Gasoline (mg/m^3) ^b	NA	7.5 J	4.7	7.3 J	4.6	12 J	6.7
trans-1,2-Dichloroethene	1390	0.036 U	0.036	0.035 U	0.035	0.051 U	0.051
trans-1,3-Dichloropropene	234	0.034 U	0.034	0.033 U	0.033	0.049 U	0.049
Trichloroethene	69.5	0.034 U	0.034	0.018 J	0.033	0.049 U	0.049
Trichlorofluoromethane	24300	3.1	0.034	3.4	0.033	4.6	0.049
Vinyl Chloride	55.9	0.039 U	0.039	0.038 U	0.038	0.055 U	0.055

^aThe screening limit used for acetone and acrolein was the Residential Noncancer value.

^bTPH as gasoline is listed in milligrams per cubic meter

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated but are qualitatively acceptable and quantitatively uncertain.

LOD = limit of detection

NA = Not applicable

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table 6-21. Summer Sampling – Non-COPC Exceedances

Sample Location ID	Field Sample ID	Sample Date	Sample Type	Analytical Method	Analyte	CAS #	Result ($\mu\text{g}/\text{m}^3$)	Final Qualifier	Validation Reason Code	VISL ^a
SVMW-16	DUPE-5-2	8/10/2022	FD	TO-15 SIM	Acrolein	107-02-8	0.7	J		0.695
SVMW-16	SVMW-16-5-2	8/9/2022	N	TO-15 SIM	Acrolein	107-02-8	1.3	J		0.695
SVMW-16	SVMW-16-10-2	8/9/2022	N	TO-15 SIM	Acrolein	107-02-8	1.2			0.695
SVMW-16	SVMW-16-15-2	8/9/2022	N	TO-15 SIM	Acrolein	107-02-8	1.1			0.695
SVMW-17	SVMW-17-5-2	8/9/2022	N	TO-15 SIM	Acrolein	107-02-8	1.4			0.695
SVMW-18	SVMW-18-10-2	8/10/2022	N	TO-15 SIM	Acrolein	107-02-8	2.7			0.695
SVMW-19	SVMW-19-10-2	8/10/2022	N	TO-15 SIM	Acrolein	107-02-8	1.3			0.695
SVMW-20	SVMW-20-5-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	1.3			0.695
SVMW-20	SVMW-20-10-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	0.86			0.695
SVMW-20	SVMW-20-15-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	0.87	J	FD	0.695
SVMW-21	SVMW-21-10-2	8/9/2022	N	TO-15 SIM	Acrolein	107-02-8	0.71	J	FD	0.695
SVMW-22	SVMW-22-5-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	2.2			0.695
SVMW-22	SVMW-22-10-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	1.5			0.695
SVMW-22	SVMW-22-15-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	1.8			0.695
SVMW-23	SVMW-23-10-2	8/8/2022	N	TO-15 SIM	Acrolein	107-02-8	0.79			0.695

^a The screening limit used for acrolein is the Residential Noncancer from NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume I Soil Screening Guidance for Human Health Risk Assessments, June 2022.

FD = field duplicate

ID = identification

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

LOQ = Limit of Quantitation exceeds associated screening limit

N = normal / native field sample

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

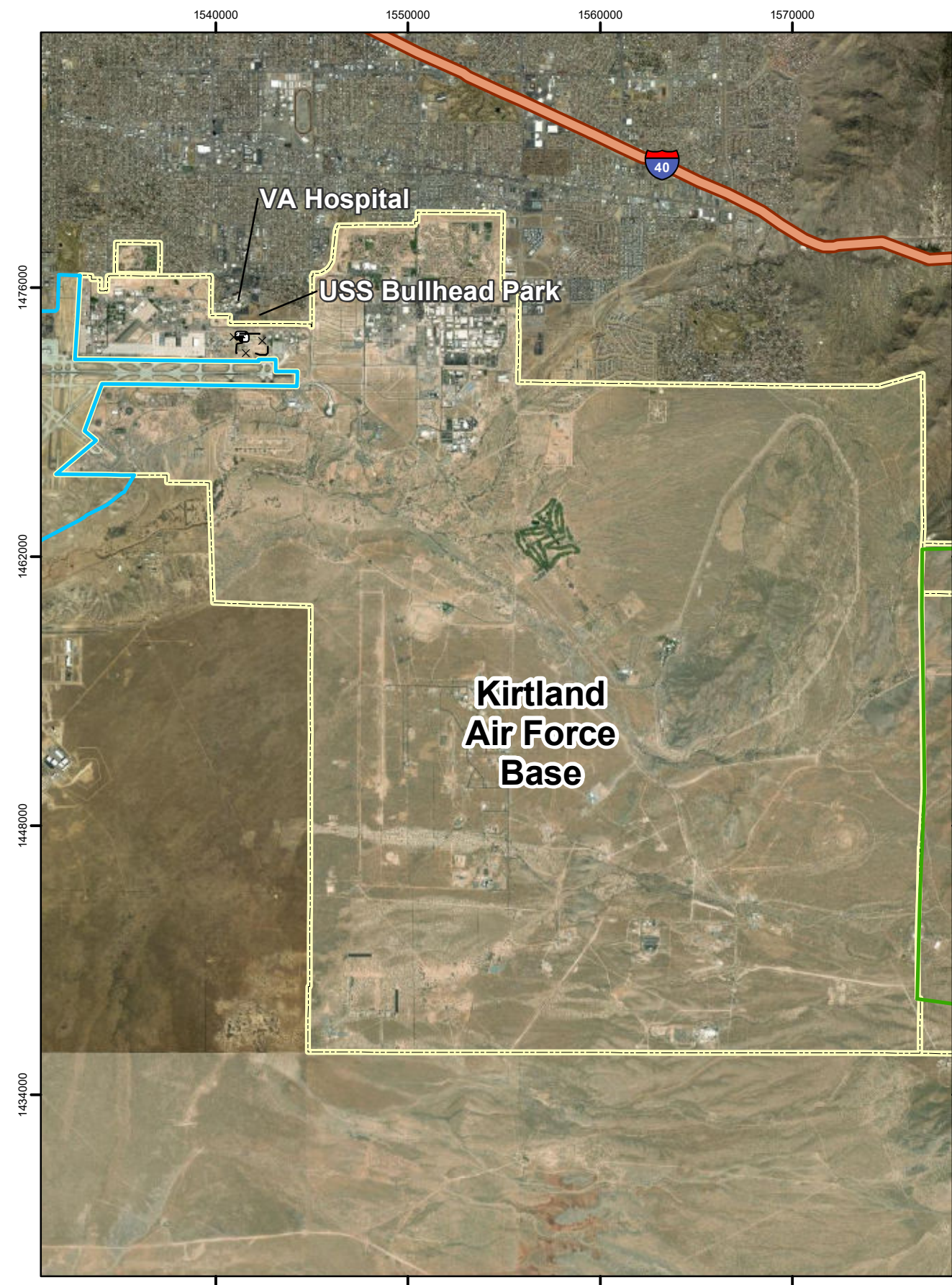
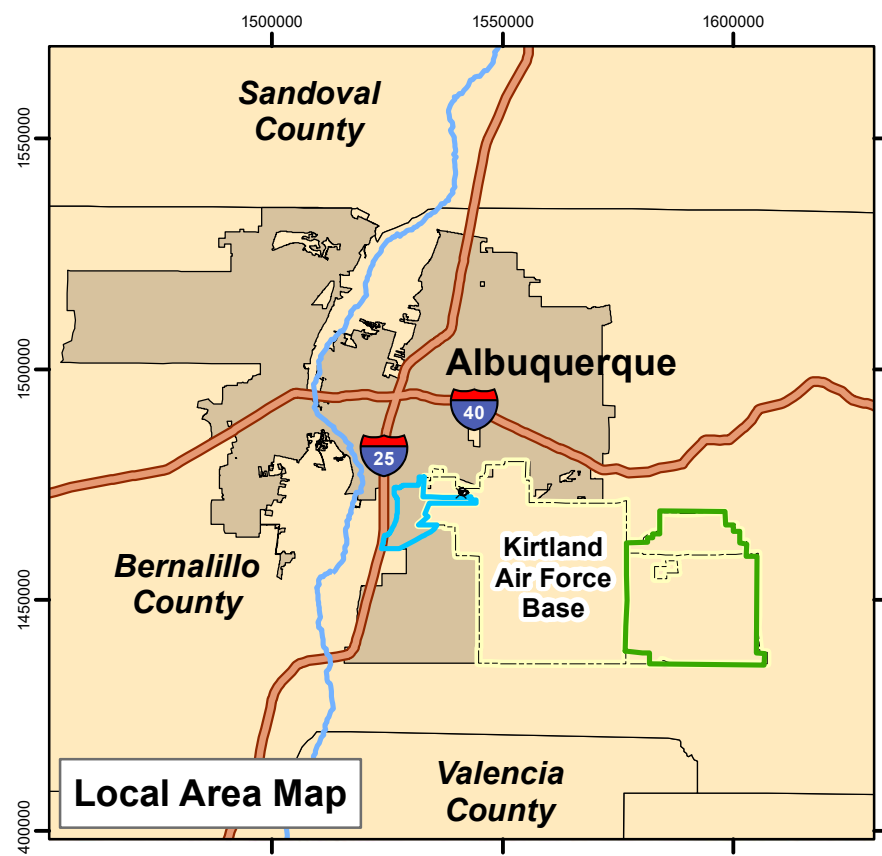
UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

VISL = vapor intrusion screening level (New Mexico Environment Department).

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11. FIGURES

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Legend

- Installation Boundary
- Source Area
- Bulk Fuels Facility Area (Fence)
- USAF Withdrawal Area
- ABQ Support Boundary
- Rio Grande
- Interstate
- US Highway
- State/County Highway

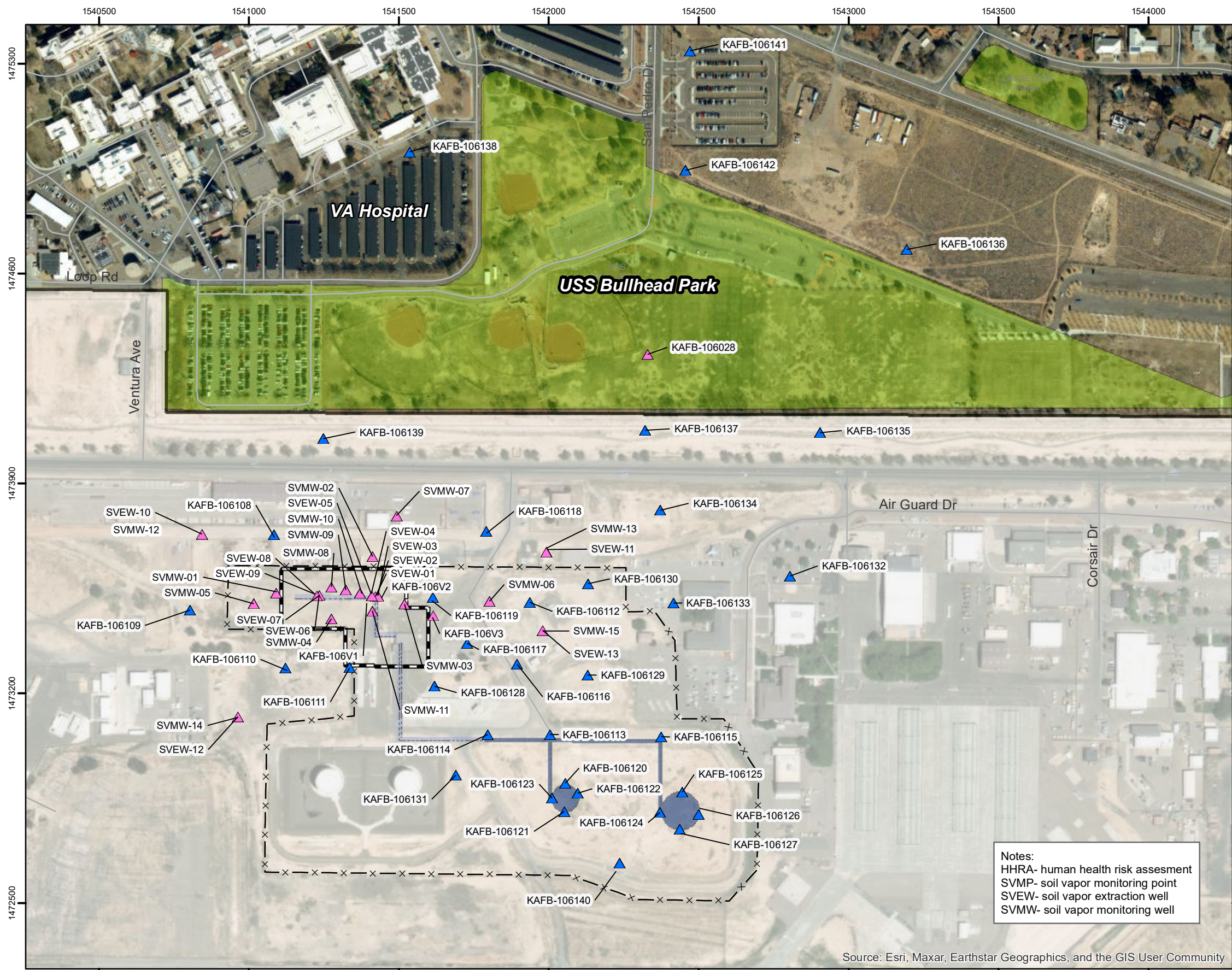
Revision Date: 12/7/2022

0 2,500 5,000 10,000 Feet
 1 inch = 7,193 feet
 Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

SHALLOW SOIL VAPOR SAMPLING
INVESTIGATION REPORT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNIT, ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 2-1

SITE VICINITY MAP



Legend

- Kirtland Air Force Base Installation Area
- City of Albuquerque Park
- Source Area
- Bulk Fuels Facility Area
- Road
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Former Aboveground Storage Tank

Soil Vapor Monitoring Point

- Location with shallow SVMP (15-25ft) evaluated in the HHRA for potential vapor intrusion
- Location without shallow SVMP (15-25ft) not evaluated in the HHRA for potential vapor intrusion

Site Location

Imagery Source: National Agricultural Imagery Program June 2014

Revision Date: 12/7/2022

Scale: 0 200 400 800 Feet
1 inch = 350 feet

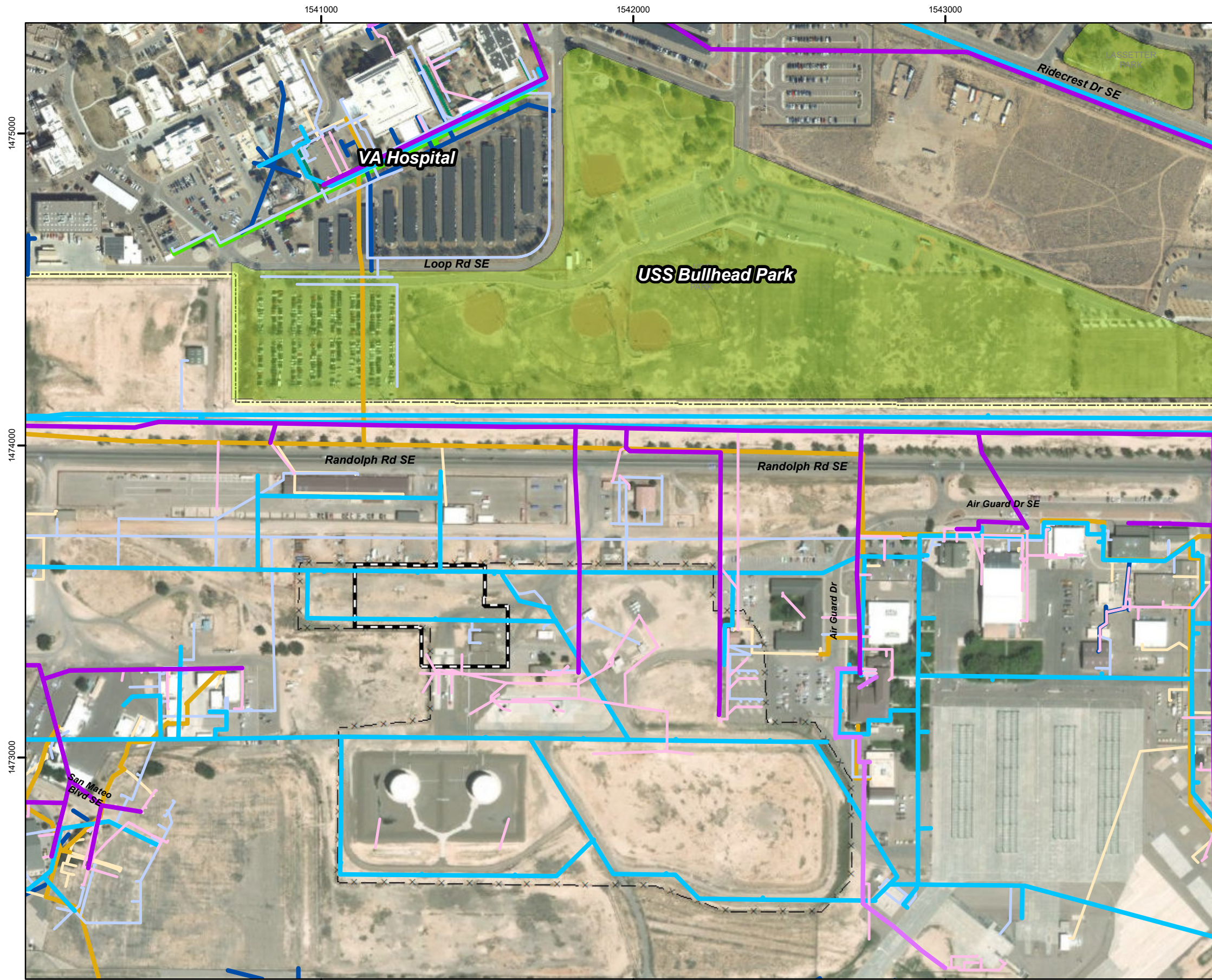
Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

**SHALLOW SOIL VAPOR SAMPLING INVESTIGATION REPORT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNIT, ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO**

FIGURE 2-2

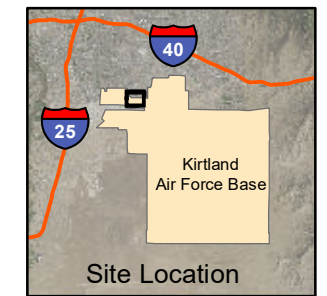
EXISTING SOIL VAPOR MONITORING LOCATIONS

Notes:
HHRA- human health risk assesment
SVMP- soil vapor monitoring point
SVEW- soil vapor extraction well
SVMW- soil vapor monitoring well



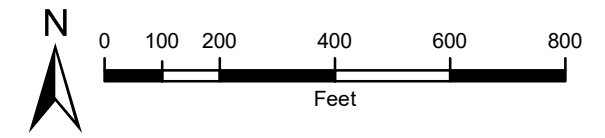
Legend

- Kirtland Air Force Base Installation Area
- Source Area
- Bulk Fuels Facility Area (Fence)
- City of Albuquerque Park
- Sewer Main - Gravity
- Sewer Main - Pressurized
- Sewer Service - Gravity
- Water Main
- Water Service
- Natural Gas Distribution
- Natural Gas Service
- Stormwater Gravity
- Steam Main
- Steam Service



Imagery Source: National Agricultural Imagery Program June 2014

Revision Date: 12/8/2022

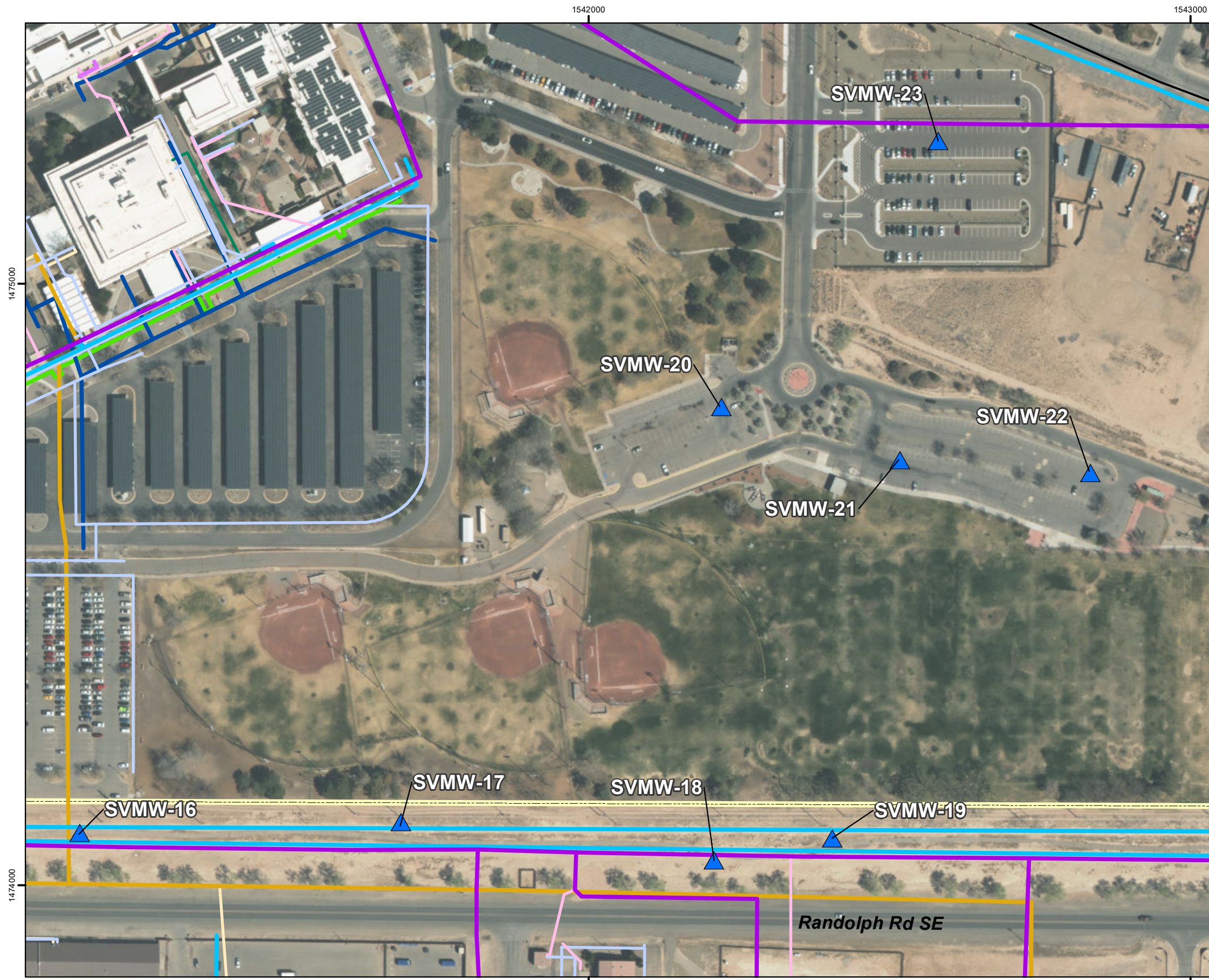


Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

SHALLOW SOIL VAPOR SAMPLING
INVESTIGATION REPORT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNIT, ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 2-3

KNOWN UTILITY LOCATIONS



Legend

- ▲ Proposed Locations
- Ridgecrest Drive
- ▭ Kirtland Air Force Base Installation Area
- Sewer Main - Gravity
- Sewer Main - Pressurized
- Sewer Service - Gravity
- Water Main
- Water Service
- Natural Gas Distribution
- Natural Gas Service
- Stormwater Gravity
- Steam Main
- Steam Service

Imagery Source: National Agricultural Imagery Program June 2014

Revision Date: 5/4/2021

N

0 50 100 200 300 400
Feet
1 inch = 172 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

SHALLOW SOIL VAPOR SAMPLING
INVESTIGATION REPORT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNITS ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO

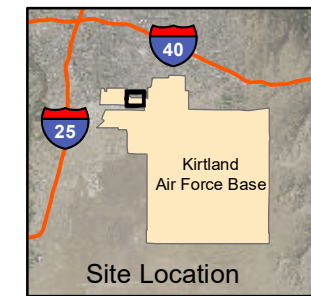
FIGURE 4-1

SOIL VAPOR MONITORING
LOCATIONS



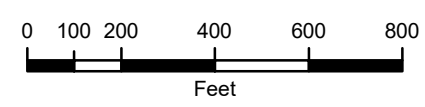
Legend

- Kirtland Air Force Base Installation Area
- Sundance Laydown and IDW Yard
- Designated Decontamination Area
- Source Area
- Bulk Fuels Facility Area (Fence)
- City of Albuquerque Park



Imagery Source: National Agricultural Imagery Program June 2014

Revision Date: 12/7/2022



Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

SHALLOW SOIL VAPOR SAMPLING
 INVESTIGATION REPORT
 BULK FUELS FACILITY
 SOLID WASTE MANAGEMENT UNIT, ST-106/SS-111
 KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-1

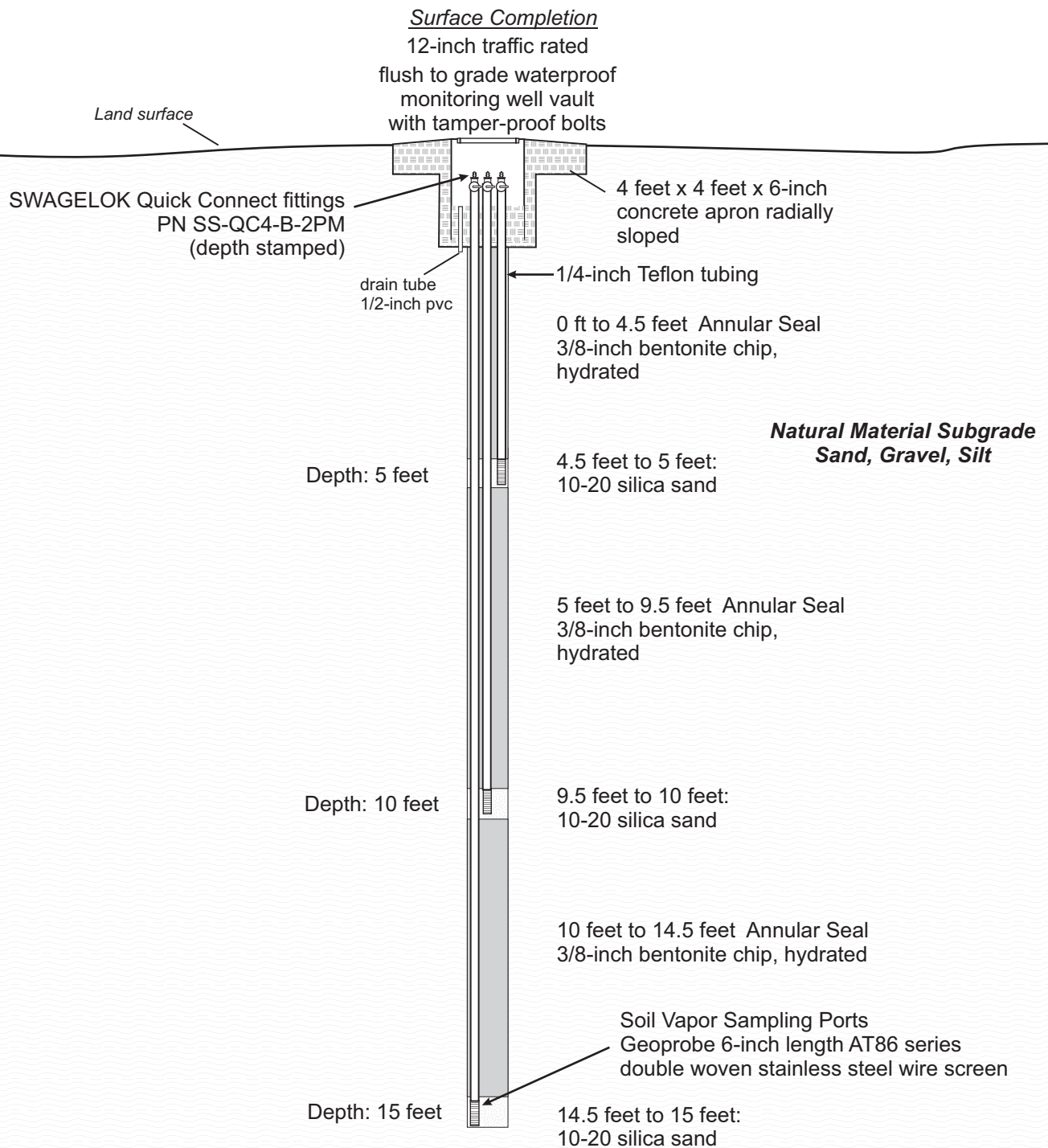
DECONTAMINATION AND IDW STORAGE

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Figure 5-2: IDW Storage Photo



FIGURE 5-3. SHALLOW SOIL VAPOR MONITORING POINT CONSTRUCTION



Boring Methods:
Attempted completion using direct push
technology (DPT) (3-inch hole) Switch to 6-
inch auger if refusal to DPT

Figure 5-4: Drill Rig Photo



Figure 5-5: Annular Seal Placement Photo



Figure 5-6: Well Vault and Vapor Probes Photo

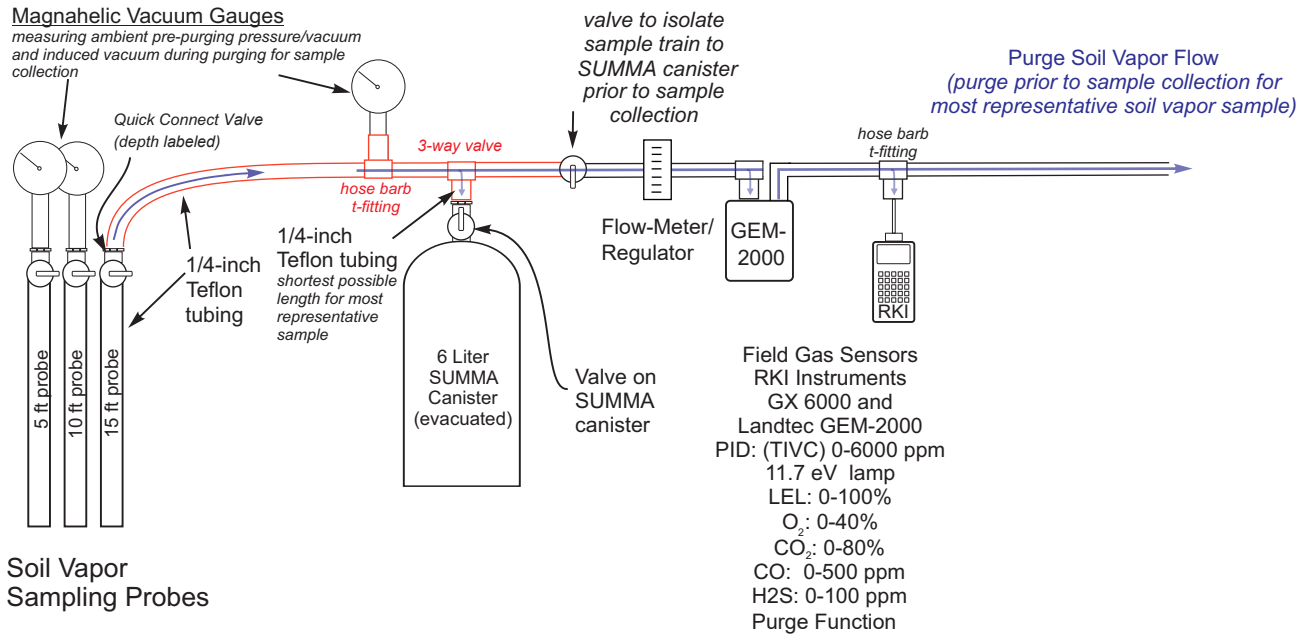


Figure 5-7: Well Vault and Concrete Surface Slab Placement Photo



FIGURE 6-1. SOIL VAPOR SAMPLING EQUIPMENT, METHODS AND PURGE PARAMETERS

Probe-Dedicated sampling train tubing and fittings shown in red are single use disposable requiring no decontamination



Field Gas Sensors
 RKI Instruments
 GX 6000 and
 Landtec GEM-2000
 PID: (TIVC) 0-6000 ppm
 11.7 eV lamp
 LEL: 0-100%
 O₂: 0-40%
 CO₂: 0-80%
 CO: 0-500 ppm
 H₂S: 0-100 ppm
 Purge Function

SOIL VAPOR PURGING PARAMETERS

Probe Depth (ft)	Date-Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (vacuum) Inches H ₂ O				Induced Vacuum During Well Purge (Inches H ₂ O)				Field Vapor Screening Parameters				Comments
				5 ft probe	10 ft probe	15 ft probe	25 ft probe	5 ft probe	10 ft probe	15 ft probe	25 ft probe	PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	

15-Foot Completions

5 ft		-5.0														Pre-purge pressure/vacuum
5 ft		0.0														Begin Purge
5 ft		5.0														
5 ft		10.0														Collect Sample
10 ft		-5.0														Pre-purge pressure/vacuum
10 ft		0.0														Begin Purge
10 ft		5.0														
10 ft		10.0														Collect Sample
15 ft		-5.0														Pre-purge pressure/vacuum
15 ft		0.0														Begin Purge
15 ft		5.0														
15 ft		10.0														Collect Sample

ACRONYMS	
CH ₄	methane
CO ₂	carbon dioxide
ft	foot/feet
H ₂ O	water
min	minute
O ₂	oxygen
PID	photoionization detector
ppm	parts per million

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SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

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BUTCH TONGATE
Cabinet Secretary Designate
J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 4, 2017

Colonel Eric. H. Froelich
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117-5606

Lieutenant Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117-5270

**RE: TECHNICAL MEMO REQUESTING THE OPTIMIZATION OF SOIL VAPOR
MONITORING, BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNIT ST-106/SS-111
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423, HWB-KAFB-13-MISC**

Dear Colonel Froelich and Lt. Colonel Acosta:

The New Mexico Environment Department (NMED) received the Kirtland Air Force Base (KAFB) (the Permittee) *Technical Memo Requesting Optimization of Soil Vapor Monitoring*, dated November 22, 2016. The technical memo proposes optimization to the soil vapor monitoring program including:

- Optimization of sampling frequency to semi-annual for all 284 soil vapor monitoring points (SVMPs);
- Removal of Laboratory Total Petroleum Hydrocarbon (TPH) analyses with continued field measurements of air-phase petroleum hydrocarbons (HC) using a Horiba MEXA 582L;
- Removal of Laboratory Fixed Gases analyses; and
- Discontinuation of sampling for TO-15 analytes detected 20 times or fewer.

The proposed optimizations to the soil vapor monitoring program outlined in the technical memo are hereby approved.

Col. Froelich and Lt. Col. Acosta
January 4, 2017
Page 2

If you have any questions regarding this letter, please contact Diane Agnew at (505) 222-9555.

Sincerely,



Kathryn Roberts
Director
Resource Protection Division

cc: Col. M. Harner, KAFB
K. Lynnes, KAFB
A. Bodour, KAFB-AFCEC
T. Simpler, USACE
M.L. Leonard, AEHD
F. Shean, ABCWUA
L. King, EPA-Region 6 (6PD-N)
K. Kieling, NMED-HWB
D. McQuillan, NMED
D. Agnew, NMED-HWB

File: KAFB 2016 Bulk Fuels Facility Spill



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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BUTCH TONGATE
Cabinet Secretary

BRUCE YURDIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 19, 2018

Colonel Richard W. Gibbs
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117-5606

Mr. Chris Segura
Chief, Installation Support Section
AFCEC/CZOW
2050 Wyoming Blvd SE, Suite 124
Kirtland AFB, NM 87117-5270

**RE: RISK ASSESSMENT
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNIT ST-106/SS-111
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423, HWB-KAFB-13-MISC**

Dear Colonel Gibbs and Mr. Segura:

The New Mexico Environment Department (“NMED”) is in receipt of the Kirtland Air Force Base (“KAFB”) Risk Assessment (“RA”), dated July 2017. The U.S. Air Force (“Permittee”) prepared the RA to evaluate the potential for human and ecological exposure to, and potential risks from such exposures to, contaminants related to the historical fuel leak at the Bulk Fuels Facility (“BFF”) site (“Site”) either now or in the future. The RA contained two parts: the Human Health Risk Assessment (“HHRA”); and the Ecological Risk Assessment (“ERA”). The HHRA investigated whether there is any risk to human receptors from contamination at the Site, and the ERA examined whether there is any risk to ecological receptors, such as plants, birds, or mammals, from Site contaminants.

Both the HHRA and the ERA asked two questions to determine whether unacceptable risk exists. The first question was whether there is an exposure pathway for contaminated media to come in contact with human or ecological receptors. Once the complete and potentially complete exposure pathways were identified, the second question was whether the contamination is present at levels that could cause an unacceptable risk to human or ecological receptors, thus not

protecting human health and the environment. At this time, NMED has completed its review of the HHRA soil and groundwater potential exposure pathways.

Soil – The HHRA identified complete and potentially complete soil exposure pathways for the on-site current/future commercial/industrial workers at the BFF, future construction workers at the BFF, and future hypothetical residents at the BFF. Total soil risks based on the maximum detected concentrations were at or below NMED target risk levels. Therefore, no unacceptable risk was identified based on exposure to on-site surface soil (0 to 1 foot below ground surface) or mixed soil zone (0 to 10 feet below ground surface) within the BFF. Additionally, as no contaminated surface or mixed zone soil is present off-Base, therefore, there are no complete or potentially complete exposure pathways for impacted soil for off-Base receptors.

Groundwater – The HHRA determined that groundwater impacted by contaminants from the BFF is not currently used as a drinking water source and that Land Use Controls (“LUCs”) are in place to prevent exposure. Therefore, there are currently no complete exposure pathways for groundwater on-site or off-Base. Additionally, in order to inform risk management decisions and evaluate an unrestricted use scenario, domestic use of groundwater was evaluated on-site and off-Base. Total risks calculated using NMED tap water screening levels exceeded NMED target levels.

The New Mexico Office of the State Engineer issued a well drilling moratorium associated with BFF corrective action activities on February 9, 2017. The intent of this moratorium is to protect human health and prevent interference with ongoing corrective action activities by restricting the drilling of new wells and the transfer of water rights within the boundaries specified by NMED. BFF contaminants have not been detected in off-Base water supply sentinel wells at concentrations exceeding drinking water standards. In addition, KAFB drinking water supply wells are sampled monthly and no BFF contaminants exceeding screening levels have been detected. Based on the results of the HHRA, the interim corrective measures (groundwater extraction and treatment system) and LUCs are needed to prevent direct contact with groundwater.

NMED hereby approves the following portions of the Human Health Risk Assessment:

- **On-site surface and mixed zone soil** – NMED agrees that surface and mixed zone soil contaminant levels do not pose unacceptable risks to current/future commercial/industrial workers at the BFF, to future construction workers at the BFF, and to future hypothetical residents at the BFF.
- **Off-Base surface and mixed zone soil** – NMED agrees that there are no complete or potentially complete exposure pathways for surface and mixed soil zone for off-Base receptors.
- **Groundwater** – NMED agrees that groundwater impacted by contaminants from the BFF is not currently used as a drinking water source, and that the ongoing interim corrective measures and LUCs are necessary to prevent exposure.

Col. Gibbs and Mr. Segura
December 19, 2018
Page 3

NMED's review of the HHRA soil vapor intrusion potential exposure pathway, and of the ERA is not yet complete, and therefore will be addressed under separate cover in the near future.

If you have any questions regarding this letter, please contact NMED Chief Scientist Dennis McQuillan at (505) 827-2140.

Sincerely,



Bruce Yurdin
Deputy Secretary
Environment Department

cc: Col. M. Harner, KAFB
K. Lynnes, KAFB
B. Renaghan, AFCEC
S. Clark, KAFB-AFCEC
B. Faris, AEHD
F. Shean, ABCWUA
L. King, EPA-Region 6 (6PD-N)
J. Kieling, NMED-HWB
A. Romero, NMED-GWQB
M. Hunter, NMED-GWQB
D. McQuillan, NMED-OOTS

File: KAFB 2018 Bulk Fuels Facility Spill



Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

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James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 26, 2019

Colonel David S. Miller
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Lt. Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117

**RE: REJECTION
MEMORANDUM FOR NEW MEXICO ENVIRONEMNT (SIC) DEPARTMENT
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID # NM9570024423
HWB-KAFB-19-005**

Dear Colonel Miller and Colonel Acosta:

The New Mexico Environment Department (NMED) received the U.S. Air Force (Permittee) Kirtland Air Force Base (KAFB or Facility) *Memorandum for New Mexico Environemnt (sic) Department* (Memo) on May 30, 2019. The Memo references a document titled *Vapor Intrusion Data Gap Soil Solid Waste Management Unit ST-106/SS-111 Vapor Sampling Work Plan, Bulk Fuels Facility* (Work Plan). It is unclear whether the Memo was intended to substitute for the Work Plan required by NMED's letter dated February 25, 2019.. The submitted Memo consists of various attachments containing unnumbered pages. Since the Memo was all that was submitted, NMED-HWB reviewed the Memo as a replacement for the actual Work Plan. NMED determined that the document is unreviewable and hereby issues this Rejection. The Permittee must address the following comments.

1. Work Plan Format

NMED Comment: The Memo was not submitted in a format that is acceptable as a work plan. Section 6.2.4.2 of the KAFB Permit presents the sections required for an Investigation Work Plan. The Permittee provided no title page, no signature block or certification, no executive summary, no table of contents, no introduction, no background information, and no description of site conditions. In addition, the pages of the attachments contain no page numbers making it difficult to reassemble the document in proper order once the pages were separated. In order for NMED to provide comments detailing where issues are found, as well as for the public to be able to review the document in the Administrative Record, every page of every document submitted must be numbered appropriately. The Permittee must submit a work plan in the appropriate format, including addition of the appropriate information in the appropriate required sections, based on the Permit requirements and must sequentially number every page contained in the document.

2. Document Certification

NMED Comment: NMED's February 25, 2019 letter requiring the submittal of a soil vapor sampling work plan specifically states, "[p]ursuant to 40 C.F.R. § 270.11(d)(1), all corrective action documents, including those outlined in this letter, shall include a certification, signed by a responsible official, stating:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The Permittee did not provide the certification as required. Failure to provide the certification in future documents may result in rejection of the documents. Provide the signed certification in the Work Plan.

3. Soil Vapor Monitoring Point Locations

Permittee Statement: "Temporary vapor monitoring point locations have been selected within the residential area north of Ridgecrest as well as within the VA Medical Center campus and a location in the utility easement south of Gibson Boulevard SE. These sampling

locations and depth intervals were selected in consultation with NMED and advice offered during the 24 April 2019, Technical Working Group meeting.”

NMED Comment: The NMED-HWB has no record of the rationale used for selection of vapor monitoring point locations. The Permittee provided no background information or rationale for choosing the proposed soil vapor monitoring wells. Provide a record of the selection of vapor monitoring locations, as well as background information and the rationale for each soil vapor monitoring point location, in the Work Plan.

In addition, NMED does not agree with the installation of temporary wells. Soil vapor monitoring related to vapor intrusion will be required of the Permittee for as long as VOCs are present in the subsurface anywhere at the site above the vapor intrusion screening levels and subsurface flow is being manipulated through various SVE, bioventing, or other pilot tests and/or interim measures. In addition, the proposed upside-down buried bucket equipment cover is not appropriate. The Permittee must propose to install permanent surface completions for all new soil vapor monitoring wells. Since these will be permanent for the foreseeable future, NMED recommends using stainless steel tubing instead of the proposed Teflon tubing. Should the Teflon tubing fail, the Permittee may be required to reinstall the affected vapor monitoring wells.

4. Proposed Temporary Vapor Monitoring Point Construction

Permittee Statement: “Bentonite chips (1/4-inch) will be placed in the boring opposite the vapor ports”

NMED Comment: NMED is unclear as to why the Permittee would propose this as part of well construction. It appears to suggest that the soil vapor sampling ports will be encased in bentonite, which is not appropriate. Provide a more detailed and thorough description of the proposed well construction and a discussion of how the Permittee will ensure that the sampling ports are located and screened appropriately in the revised Work Plan. In addition, the Permittee did not provide a description of or specifications for the sampling ports. Provide this information in the Work Plan

5. Decontamination

Permittee Statements: “Soil vapor sampling equipment will consist of single use disposable Teflon tubing and dedicated vapor monitoring point sterile hose barbs and flow control valves; therefore, no decontamination of soil vapor sampling equipment will be necessary.” and

“All Teflon tubing proposed for the sample train will be single-use disposable for each individual monitoring point. Hose barb connectors and flow control valves will be sterilized by boiling in deionized water prior to initial use and between uses.”

NMED Comment: These statements contradict each other. In addition, it is unclear why field supplies would require sterilization. Provide a detailed description of the proposed technique to boil fittings in the field and how this nonstandard technique accomplishes decontamination. Resolve the discrepancy and provide the information in the Work Plan.

6. Figure 4: Proposed Soil Vapor Sampling Equipment, Methods and Purge Parameters

NMED Comment: The schematic provided for the sample train for collecting soil vapor samples is not adequate. A three-way valve should be included in the Teflon tubing above the Summa canister. The valve must shut off flow to the pump prior to opening the valve to the Summa canister for sample collection. The valve will prevent the Summa canister vacuum from drawing air backwards from the sensors and pump. Revise the figure for the Work Plan to include an appropriate mechanism to ensure soil vapor sample collection procedures are collecting representative samples.

7. Field Instruments

Permittee Statement: "During sampling of each soil vapor monitoring point, field parameters including total ionizable volatile hydrocarbons...will be measured using...a Lantec GEM 2000 photoionization detector."

NMED Comment: The Permittee must provide the details of the photoionization detector, including the photon energy of the lamp. In addition, the Permittee must provide detailed information on calibration gases for all field instruments and how they are applicable to the contaminants and concentrations expected at the site. Provide this information in the Work Plan.

8. Laboratory Analysis

Permittee Statement: "Table 1 shows 1,2-Dibromoethane (EDB) as the only COPC with an LOQ exceeding the VISL. Although the cited MDL value for EDB is below the VISL, the LOQ and MDL values do not account for dilution from canister pressurization. After the pressurization dilution factor is applied to the base LOQ and MDL, these values are expected to increase by ~1.5X for six-liter samples and 2.8X for one-liter samples."

NMED Comment: The Permittee must utilize a laboratory and analytical methodology that have LOQ and MDL values below the VISLs. The Permittee cannot demonstrate that a site requires no further action based on data with LOQs that exceed the screening levels. The Permittee must make a demonstrated effort to find a laboratory and analytical method that can achieve an LOQ below the VISL.

9. Reporting

Permittee Statement: "A draft technical memorandum will be prepared and submitted within 30 days of data validation."

NMED Comment: NMED does not accept draft documents. In addition, a memorandum is not the appropriate reporting document. The Permittee must propose to submit a report that summarizes the work conducted that includes descriptions of all work performed and presents the results of the investigation. Propose to submit a report in the Work Plan accordingly.

The Permittee must submit a Work Plan for NMED approval that addresses all comments contained in this Rejection and includes a proposed schedule to implement the work. Two hard copies and two electronic versions (on separate discs) of the revised Work Plan must be submitted to the NMED Hazardous Waste Bureau. The Work Plan must be accompanied with a response letter that details where all of NMED's comments have been addressed. The Work Plan must be submitted to NMED no later than **October 31, 2019**.

If you have any questions regarding this letter, please contact Ben Wear at (505) 476-6041.

Sincerely,



John E. Kielling

Chief

Hazardous Waste Bureau

cc: S. Stringer, NMED RPD
D. Cobrain, NMED HWB
R. Murphy, NMED HWB
B. Wear, NMED HWB
L. King, EPA Region 6 (6LCRRC)
C. Segura, AFCEC
S. Clark, AFCEC
F. Shean, ABCWUA

File: KAFB 2019 and Reading



Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAY 26 2020

Colonel David S. Miller
Base Commander
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2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Lt. Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117

**RE: DISAPPROVAL
WORK PLAN FOR SHALLOW SOIL VAPOR SAMPLING, BULK FUELS FACILITY, SOLID
WASTE MANAGEMENT UNITS ST-106/SS-111, NOVEMBER 2019
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID # NM9570024423
HWB-KAFB-19-014**

Dear Colonel Miller and Colonel Acosta:

The New Mexico Environment Department (NMED) received the U.S. Air Force (Permittee) Kirtland Air Force Base (Facility) *Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, November 2019* (Work Plan), on November 8, 2019. NMED has reviewed the Work Plan and hereby issues this Disapproval with comments. NMED's comments are attached.

The primary technical issue with the Work Plan is that it does not address the areas identified in NMED's February 25, 2019 letter requiring the Work Plan, nor does it follow EPA guidance on conducting shallow soil vapor sampling related to vapor intrusion. NMED and KAFB staff met on May 7th to discuss the Work Plan and the contents of this Disapproval to facilitate the submittal of an approvable revised Work Plan, the results of which are summarized in NMED's comments.

The Permittee must submit a revised Work Plan that corrects all deficiencies noted in this Disapproval. The revised Work Plan must be accompanied by a response letter (also included as an appendix) that details how and where NMED's comments were addressed and cross-references the numbered comments. In addition, the Permittee must submit an electronic redline-strikeout version of the revised Work Plan that shows where all changes were made to the Work Plan. Please submit the revised Work Plan as soon as possible but no later than **August 28, 2020**.

If you have any questions regarding this letter please contact me, or your staff may contact Ben Wear at (505) 476-6041.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin M. Pierard", with the word "for" written below it.

Kevin M. Pierard, Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
R. Murphy, NMED HWB
B. Wear, NMED HWB
L. King, EPA Region 6 (6LCRRC)
S. Clark, KAFB
K. Lynnes, KAFB

File: KAFB 2020 and Reading

Attachment 1 - NMED Comments

GENERAL COMMENTS

1. Permittee Response to NMED's July 26, 2019 Rejection Comments

NMED Comment: The Permittee must include their Response to Comments (RTCs) in a document appendix for all revised document submittals. While the Permittee submitted the RTCs in a separate electronic file, the RTCs must be included as an appendix to the plan to allow stakeholders and the public easy access when reviewing the document. For all future revised documents submitted to NMED, the Permittee must include the RTCs as an appendix to the document. Please revise the Work Plan accordingly. This was discussed on May 7; KAFB agreed to follow this procedure.

2. Permittee Response to NMED's July 26, 2019 Rejection Comment #1

NMED Comment: Comment #1 of NMED's July 26, 2019 Rejection letter states, "...the pages of the attachments contain no page numbers...In order for NMED to be able provide comments that reference where issues are found, as well as for the public to be able to review the document in the Administrative Record, every page of every document submitted must be numbered appropriately. The Permittee must submit a work plan in the appropriate format, including addition of the appropriate information in the corresponding sections, based on the Permit requirements and must sequentially number every page in the document."

The Permittee failed to sequentially number all pages of the document as directed by NMED in the Tables section, the Figures Section, and all three appendices of the Work Plan. In addition, the appendices contain tables with no table numbers, figures with no figure numbers, and multiple pages with no page numbers at all. The Permittee must ensure that all submittals, including the revised Work Plan, include sequential page numbers on all pages, and that tables, figures, and appendices are properly numbered. Making this correction will facilitate timely review and precise communication between NMED and KAFB on all documents submitted for review. It will also facilitate references to information in subsequent activities (e.g., review of corrective action documents). Please revise the Work Plan accordingly. This was discussed on May 7; KAFB agreed to follow this procedure.

3. Well Designations

NMED Comment: The Permittee has used multiple designations for wells in the Work Plan. For instance, Section 3.1 of the Work Plan discusses wells KAFB-SV-01, KAFB-SV-02, KAFB-SV-03, etc., while Table 1 of the Work Plan lists these wells as KAFB-106-SV01,

KAFB-106-SV02, KAFB-106-SV03, etc. and Figure 2 of the Work Plan lists these wells as KAFB-106SV01, KAFB-106SV02, KAFB-106SV03, etc. Use of multiple designations inhibits NMED's ability to timely review documents by limiting the search function and causing confusion when searching for data in spreadsheets or databases. This issue is evident in many documents submitted by the Permittee. The Permittee must use the official full designation for each well consistently in the revised Work Plan and in all future documents submitted to NMED. This was discussed on May 7; KAFB agreed to follow this procedure.

4. Risk Assessment

NMED Comment: The Permittee referenced a 2017 Risk Assessment throughout the Work Plan. The vapor intrusion pathway portion of the Permittee's 2017 Risk Assessment was not approved; therefore, all references to the results of the risk assessment must be removed from the revised Work Plan. Risk assessment is not appropriate when a site investigation has not yet been completed or where conditions at the site are being manipulated, such as during pilot tests. In addition, preparing and reviewing a premature risk assessment constitutes an ineffective use of resources for both the Air Force and NMED. Discussions between NMED and KAFB on May 7 resulted in both parties agreeing that conducting a risk assessment at this point in the project was neither appropriate nor beneficial. NMED is directing the Permittee to abandon completion of the risk assessment. This does not remove the requirement for the Permittee to investigate the potential for vapor intrusion into buildings and homes near the site. Please revise the Work Plan to remove references to the risk assessment.

5. Appendices

NMED Comment: The Permittee included three appendices in the Work Plan that contain historical data tables. Well construction details, purge volumes, and field measurements for existing deeper soil vapor monitoring wells are not useful for siting shallow soil vapor monitoring wells related to vapor intrusion. In addition, including the analytical tables for the entire suite of VOC analytes is not useful. Select prevalent VOCs and annual concentration contour maps would be more appropriate for siting well locations. In addition, the Permittee must develop the investigation by incorporating the direction provided in both NMED's February 25, 2019 letter and EPA's OSWER Publication 9200.2-154, *OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air*, USEPA, June 2015 (EPA VI Guidance) to provide the rationale for the well locations. Failure to follow NMED direction or EPA guidance must be explicitly justified in the revised Work Plan. It is also recommended that the permittee discuss this with NMED in advance of submitting a revised Work Plan. Please remove extraneous data and provide appropriate justification

for proposed well locations in the revised Work Plan. This was discussed on May 7; KAFB agreed to modify the Work Plan.

SPECIFIC COMMENTS

6. Section 2.2, Site History, page 2-1

Permittee Statement: “Samples collected for the evaluation of the vapor intrusion pathway were from depths of 15 to 25 feet below ground surface (bgs), which is deeper than the 10-foot depth used by NMED for VISLs. This imparted a high degree of conservatism to the risk characterization.”

NMED Comment: The Permittee references data from samples collected from depths of 15 to 25 feet bgs. The data presented in the Work Plan is from samples collected from 25 to 30 feet bgs, not 15 to 25 feet bgs. Please provide an explanation and resolve the discrepancy for accuracy in the revised Work Plan.

In addition, the final statement is not appropriate in a section regarding site history, as only historic facts belong in the background section. This statement must be removed from the Work Plan. Also, please remove references to the risk assessment from the revised Work Plan per Comment 2. This was discussed on May 7; KAFB agreed to follow this procedure.

7. Section 3.1, Soil Vapor Monitoring Locations, page 3-1

Permittee Statement: “Four of the proposed SVMP locations (KAFB-SV-01, KAFB-SV-02, KAFB-SV-03, and KAFB-SV-07) were selected to provide shallow soil vapor sample data at sites adjacent to existing vapor point nests having deeper completions.”

NMED Comment: NMED’s February 25, 2019 letter requiring this Work Plan specifically directed the Permittee to conduct sampling “in the residential area north of Ridgecrest or amid buildings on the VA hospital campus.” In addition, the EPA VI Guidance states, “EPA recommends that soil gas samples be taken as close to the areas of interest as possible and preferably from directly beneath the building structure.” The EPA Guidance also states, “[d]epending upon the CSM [conceptual site model], sampling of vapors within the utility corridor (or within a sewer, if present) may be warranted to characterize vapor migration in the subsurface...”

The Work Plan proposes only one of the eight wells within approximately 50-feet of a building. Only one is proposed north of Ridgecrest Drive, and it is in a park approximately 130-feet from the nearest home. In addition, there is no mention of utility corridors or other potential conduits in the Work Plan. This indicates that the Permittee has not followed NMED direction or EPA guidance. The Permittee must

follow NMED direction and EPA guidance or provide justification for not doing so. It is recommended that the permittee discuss this with NMED prior to submittal of the revised Work Plan. Please provide a rationale for well siting including a discussion of all potential vapor conduits.

In the revised Work Plan, the Permittee must provide a thorough CSM, propose appropriate sampling locations that address the areas of concern provided by NMED, and follow the direction provided in the EPA VI guidance or provide justification for not doing so.

8. Section 3.1, Soil Vapor Monitoring Locations, page 3-2

Permittee Statement: "Proposed SVMP locations were selected carefully to avoid areas in roadways and parking lots with heavy vehicular traffic for the following reasons:

- Potential sources of benzene, toluene, ethylbenzene, and xylenes may exist in shallow soils beneath roadways that could interfere with the objectives of this sampling event.
- Interference from vehicular traffic during the sampling may impact vapor concentrations in shallow soils under certain barometric conditions giving potential false positive results."

NMED Comment: Consistent with NMED direction and EPA's VI Guidance for siting monitoring wells, soil vapor monitoring must include areas where vapors may accumulate in close proximity to buildings or homes. Pavement near buildings or homes, such as in parking lots, provides a semi-impermeable cap above the subsurface which may trap contaminant vapors and cause them to pool. The Permittee must address the concern of vapor contaminants beneath pavement and near buildings and homes and address the issue of contaminant vapor migration through utility corridors. Utility corridors provide a conduit for the transport of contaminant vapors. The Permittee must provide a thorough CSM including maps depicting paved areas and all utility corridors in the areas of concern. The Permittee must also evaluate these maps in conjunction with historic soil vapor data and propose sampling locations that will provide characterization of the subsurface below pavement, as well as the utility corridors between the source area and the buildings of concern, in the revised Work Plan.

9. Section 6.1, Soil Vapor Sample Collection and Analysis, page 6-1

Permittee Statement: "The sampling train will also be equipped with an isolation valve positioned between the vacuum pump/field sensors and the SUMMA® canister that will be open during purging to allow for monitoring of purge vapors. This valve will be closed prior to sample collection to ensure that vapor taken into the SUMMA® canister does not flow backwards through the vacuum pump or field sensors."

NMED Comment: The Work Plan must be revised to include the use of a 3-way valve in the location of the “hose barb t-fitting” above the Summa canister in Figure 5. A 3-way valve will ensure that the sample can only be collected from the well side of the sample train and eliminate the possibility of pulling air back from the pump. The proposed separate “isolation” valve is subject to operator error and may lead to the collection of non-representative samples. This was discussed on May 7; KAFB agreed to follow this procedure.

10. Section 6.1, Soil Vapor Sample Collection and Analysis, page 6-1

Permittee Statement: “Based upon calculated volume of the deepest tubing set and sampling train (25 ft x 1/4 in. diameter) and the flow rate of the proposed vacuum pump (0.75 cfm) required to fully purge one bore volume of the tubing is less than one minute. Therefore, the proposed ten minutes of purge time is adequate to purge many bore volumes of the tubing and sample train.”

NMED Comment: The proposed 10-minute purge time is excessive and may result in surface air being pulled into the subsurface at shallow sampling point locations. This situation could result in the collection of soil-vapor samples that are not representative of the formation. Therefore, please revise the Work Plan to include purge volumes between one and three bore volumes. This was discussed on May 7; KAFB agreed to follow this procedure.

11. Section 6.4, Reporting, page 6-4

Permittee Statement: “An electronic copy of the validated analytical data will be included. The final report will include:

- Certification by a Facility representative
- Executive Summary, Introduction, and Background Information
- Description of the scope of field sampling activities
- Sampling results included in tables with identifier, date and time of all samples.
- Tables shall also include quality control/quality assurance designation for each sample
- Results of field screening data, in tabular format
- Regulatory criteria
- Description of vapor point construction and lithologic description
- Text summary of data validation procedures and results
- Soil boring logs, as an attachment/appendix
- Specifications for vapor probe construction, as an attachment/appendix
- Survey data, as an attachment/appendix
- Waste disposal documentation, as an attachment/appendix
- Validated analytical data deliverable in electronic format such as Microsoft Excel, Microsoft Access database, or another compatible format.
- Tables, Figures, and Appendices as appropriate

- Conclusions and recommendations”

NMED Comment: Based on prior issues with missing information in submittals, NMED is clarifying what it requires for this and all future submittals. In addition to the information listed above, the Permittee is required to include the following:

- The response to NMED’s comments must be included as Appendix A of each document revision.
- Descriptions of all field activities performed for the project must be provided. References to QAPPs, SOPs, or work plans are not acceptable. All deviations from the approved work plan must be discussed and justified in a Deviations section.
- Wells must be consistently referred to by the same name/designation in all sections of the text, all tables, and all figures. The designation must match that provided in the digital analytical data files, as well.
- Sampling data tables must include the LOQ (PQL) and reporting detection limit for each analysis.
- Sampling data tables must include the appropriate screening levels for data comparison.
- Analytical data tables in digital format must include a column that indicates which analytical data report the specific sample information can be found. This link must correspond to the analytical data report file name.
- Data from analyses where the LOQ exceeds the VISL are data quality exceptions and must be identified as such in all tables and figures.
- Analytical data provided in digital format such as Excel or Access files must be provided in a sortable, searchable format. In other words, previous reports have provided digital data in the same format as the tables in the text. These tables are not sortable or searchable. Provide the tables in a standard database format.
- Analytical data packages must be submitted in accordance with Permit Section 6.5.18.2, Laboratory Deliverables.
- All tables, figures, and appendices must be appropriately numbered and titled.
- Every page of every submittal, including all pages within all sections and appendices, must be numbered either sequentially or in some other logical format.

This was discussed on May 7; KAFB agreed to follow this procedure.

12. Appendix A, Historic Benzene Concentrations in off-Base Shallow Soil Vapor Monitoring Points, no page numbers

NMED Comment: The Permittee has presented multiple figures with no figure numbers and inaccurate titles in Appendix A, as well as no indication that these unnumbered pages properly belong in Appendix A or are part of this Work Plan. For instance, each of the five figures in the appendix specifies sample locations at 15-25 feet bgs. The first two figures of the appendix show data for samples collected from 25 and 30 feet bgs. The other three figures of the appendix only show data for samples collected from 25

feet bgs. Two of the figures contain a graphed line for "Soil Vapor Monitoring Points Sealed" with no explanation or indication as to the subject of the reference. The tables in Appendix A include similar issues.

Based on the data provided in the tables, it appears that there were issues with the data quality. Specifically, the majority of the data presented in the EDB table as nondetect had MDLs and/or LOQs that exceed the screening level, some up to four orders of magnitude. Section 6.5.18 of the KAFB RCRA Permit states, "[a]nalyzes conducted with detection limits that are greater than applicable background or regulatory cleanup levels as applicable shall be considered data quality exceptions, and the reasons for use of the elevated detection limits shall be reported to the Department; results based on these data quality exceptions may not be accepted by the Department."

The data cannot be used to confirm that concentrations of EDB in soil vapor are below the screening level. This issue potentially masks detections and the data must not be utilized for drawing conclusions or guiding work. The data must be called out in the table (e.g., footnotes, highlighting, etc.). The potential for masking detections must also be discussed in the text of the document in which the data is presented.

Also, the Appendix title, Historic Benzene Concentrations in off-Base Shallow Soil Vapor Monitoring Points, is not accurate. EDB data is presented in the Appendix, as well. Please provide accurate titles for appendices.

The Permittee must correct any discrepancies, provide indications of data quality exceptions in tables and figures, provide table and figure numbers, and include sequential, or otherwise logical, page numbers for all pages in the revised Work Plan. This was discussed on May 7; KAFB agreed to follow this procedure.

13. Appendix B, Second Quarter 2019 off-Base Soil Vapor Monitoring Results, inaccurate page numbers

NMED Comment: The Permittee has presented multiple tables with inappropriate table numbers and inaccurate footers in Appendix B, as well as no indication that these pages are properly part of Appendix B or part of this Work Plan. In addition, for tables presenting analytical data, as Table 2-3 does, include a column showing the appropriate screening levels to which the data were compared. The tables in Appendix B also contain footnote definitions for terms that are not included. Please remove extraneous information from the tables, add screening level data to the analytical table, and provide appropriate table and page numbers in the revised Work Plan. This was discussed on May 7; KAFB agreed to follow this procedure.

14. Appendix C, Soil Vapor Monitoring Location Maps and Summary Analytical Results, April – June 2019, inaccurate page numbers

NMED Comment: The Permittee has presented figures with inappropriate figure numbers in Appendix C, as well as no indication that these unnumbered pages are properly part of Appendix C or are part of this Work Plan. It is unclear why these figures were included in the Work Plan, because they were only referenced once, but with no discussion or any indication that the Permittee utilized them to aid in selection of the proposed soil vapor monitoring points. Please correct the Appendix and provide a discussion of the purpose of the data provided in the Appendix in the Revised Work Plan. This was discussed on May 7; KAFB agreed to follow this procedure.



DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)

16 July 2020

Colonel Ryan Nye, USAF
Vice Commander
377th Air Base Wing
2000 Wyoming Blvd SE
Kirtland AFB NM 87117

Mr. Kevin M. Pierard, Chief
Hazardous Waste Bureau (HWB)
New Mexico Environment Department (NMED)
2905 Rodeo Park Drive East, Building 1
Santa Fe NM 87505-6303

Dear Mr. Pierard

The Air Force respectfully requests clarification from the New Mexico Environment Department (NMED) in reference to its statements in Comment 4 of the 26 May 2020 "Disapproval Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, November 2019 Kirtland Air Force Base, New Mexico EPA ID# NM9570024423 HWB-KAFB-19-014" (NOD). Comment 4 does not accurately reflect the administrative record on the Risk Assessment and does not accurately represent the path forward mutually agreed to by NMED and the Air Force as detailed in this letter. The Air Force requests that NMED issue a written clarification to address these inaccuracies.

Comment 4 of the NOD states:

"The Permittee referenced a 2017 Risk Assessment throughout the Work Plan. The vapor intrusion pathway portion of the Permittee's 2017 Risk Assessment was not approved; therefore, all references to the results of the risk assessment must be removed from the revised Work Plan. Risk assessment is not appropriate when a site investigation has not yet been completed or where conditions at the site are being manipulated, such as during pilot tests. In addition, preparing and reviewing a premature risk assessment constitutes an ineffective use of resources for both the Air Force and NMED. Discussions between NMED and KAFB on May 7 resulted in both parties agreeing that conducting a risk assessment at this point in the project was neither appropriate nor beneficial. NMED is directing the Permittee to abandon completion of the risk assessment. This does not remove the requirement for the Permittee to investigate the potential for vapor intrusion into buildings and homes near the site. Please revise the Work Plan to remove references to the risk assessment."

As detailed below, Comment 4 ignores direction from NMED to perform an interim risk assessment and ignores NMED's approval of three sections of the Risk Assessment that are contained in the administrative record. Comment 4 also does not accurately represent discussions

about the Risk Assessment in the 07 May 2020 conference call between NMED Hazardous Waste Bureau (HWB) staff and the Air Force.

NMED Administrative Record on 15 July 2017 Risk Assessment

In 2016, NMED and the Air Force agreed that an interim risk assessment was necessary to allay stakeholder concerns about possible impacts from the ethylene dibromide (EDB) plume to Albuquerque Bernalillo County Water Utility Authority (ABCWUA) production wells. A second objective of the Risk Assessment was to document completed interim measures (e.g., soil removal in Bulk Fuels Facility [BFF] source area) and ongoing interim measures (e.g., EDB plume pump and treat interim measure) that have mitigated risk to human health.

As stated in NMED's April 2017 "*KAFB Fuel Leak 2017 Strategic Plan*":

"Site assessment and characterization activities are ongoing to address the few remaining data gaps in the EDB plume and source area. A RCRA Facility Investigation (RFI) report was submitted to the NMED on January 31, 2017. A risk assessment is also part of the RFI and will be submitted April 2017. The risk assessment uses the nature and extent of fuel-related contamination to evaluate potential risk to human health and the environment, both on-KAFB and off."(emphasis added)

The 17 May 2017 letter from NMED entitled "*Notice of Deficiency, Risk Assessment Report, Resource Conservation and Recovery Act (RCRA) Facility Investigation Report, Bulk Fuels Facility Release Solid Waste Management Unit ST-106/SS-111 Kirtland Air Force Base EPA ID# NM9570024423, HWB-KAFB-13-MISC*" directs the Air Force to perform a risk assessment prior to the completion of the site investigation: "*As KAFB is aware, risk assessment is a critical component of the RCRA process...KAFB must submit the RAR [Risk Assessment Report] no later than June 30, 2017 or provide a written request with justification for an alternative submittal date within two weeks of receipt of this letter. If an alternative submittal date is requested, it must be attainable and not an arbitrary deadline, as NMED is unwilling to further prolong its submittal*" (emphasis added). A copy of this letter is provided in Attachment A.

The Air Force submitted an extension request for the completion of a risk assessment in a letter dated 28 June 2017. A copy of this letter is provided in Attachment B. This request was granted by NMED in a letter dated 05 July 2017 and the due date for the Risk Assessment was extended until 28 July 2017. A copy of this letter is provided in Attachment C.

The Risk Assessment was submitted to NMED in a letter dated 15 July 2017 entitled "*Risk Assessment Bulk Fuels Facility Release Solid Waste Management Unit ST-106/SS-111 Kirtland Air Force Base, New Mexico.*" The total cost to prepare the Risk Assessment was over \$400,000.

A 19 December 2018 letter from NMED approved the following sections of the 15 July 2017 Risk Assessment:

- *“On-site surface and mixed zone soil - NMED agrees that surface and mixed zone soil contaminant levels do not pose unacceptable risks to current/future commercial/industrial workers at the BFF, to future construction workers at the BFF, and to future hypothetical residents at the BFF.*
- *Off-Base surface and mixed zone soil - NMED agrees that there are no complete or potentially complete exposure pathways for surface and mixed soil zone for off-Base receptors.*
- *Groundwater - NMED agrees that groundwater impacted by contaminants from the BFF is not currently used as a drinking water source, and that the ongoing interim corrective measures and LUCs are necessary to prevent exposure.”*

In this letter NMED provided its technical basis for these approvals:

- *“Soil - The HHRA [Human Health Risk Assessment] identified complete and potentially complete soil exposure pathways for the on-site current/future commercial/industrial workers at the BFF, future construction workers at the BFF, and future hypothetical residents at the BFF. Total soil risks based on the maximum detected concentrations were at or below NMED target risk levels. Therefore, no unacceptable risk was identified based on exposure to on-site surface soil (0 to 1 foot below ground surface) or mixed soil zone (0 to 10 feet below ground surface) within the BFF. Additionally, as no contaminated surface or mixed zone soil is present off-Base, therefore, there are no complete or potentially complete exposure pathways for impacted soil for off-Base receptors.*
- *Groundwater - The HHRA determined that groundwater impacted by contaminants from the BFF is not currently used as a drinking water source and that Land Use Controls ("LUCs") are in place to prevent exposure. Therefore, there are currently no complete exposure pathways for groundwater on-site or off-Base. Additionally, in order to inform risk management decisions and evaluate an unrestricted use scenario, domestic use of groundwater was evaluated on-site and off-Base. Total risks calculated using NMED tap water screening levels exceeded NMED target levels.*

The New Mexico Office of the State Engineer issued a well drilling moratorium associated with BFF corrective action activities on February 9, 2017. The intent of this moratorium is to protect human health and prevent interference with ongoing corrective action activities by restricting the drilling of new wells and the transfer of water rights within the boundaries specified by NMED. BFF contaminants have not been detected in off-Base water supply sentinel wells at concentrations exceeding drinking water standards. In addition, KAFB drinking water supply wells are sampled monthly and no BFF contaminants exceeding screening levels have been detected. Based on the results of the HHRA, the interim corrective measures (groundwater extraction and treatment system) and LUCs are needed to prevent direct contact with groundwater.”

In summary, NMED’s statement in the 26 May 2020 NOD that “...Risk assessment is not appropriate when a site investigation has not yet been completed or where conditions at the site are being manipulated, such as during pilot tests. In addition, preparing and reviewing a

premature risk assessment constitutes an ineffective use of resources for both the Air Force and NMED...” directly contradicts prior direction to perform the Risk Assessment from NMED to the Air Force and dismisses NMED’s conclusions regarding three exposure pathways. As Mr. Mark Correll, Deputy Assistant Secretary of the Air Force for Environment, Safety and Infrastructure, stated to and received concurrence from Cabinet Secretary James Kenney during our 07 January 2020 meeting, the Air Force has a right to rely on prior commitments and direction from NMED to ensure federal resources are spent appropriately to continue to move this project towards final remedy selection.

Agreements between NMED and Air Force during the 07 May 2020 Conference Call


NMED’s statement in the 26 May 2020 NOD that “*Discussions between NMED and KAFB on May 7 resulted in both parties agreeing that conducting a risk assessment at this point in the project was neither appropriate nor beneficial*” misrepresents the risk assessment path forward mutually agreed to by NMED and the Air Force. During this call, the Air Force explained to the HWB staff that the Risk Assessment was performed at NMED’s direction. The Air Force also provided the history leading up to the decision to perform an interim risk assessment. The Air Force did not agree “*that conducting a risk assessment at this point in the project was neither appropriate nor beneficial.*” NMED’s conclusions in the 19 December 2018 letter that there are currently no complete exposure pathways for groundwater on or off Kirtland Air Force Base, and that there are no risks to human health from on-site surface and mixed zone soil, are beneficial to this project. Performing an interim risk assessment during a long investigative phase ensures accurate risk communication with the public.

Furthermore, NMED’s statement in the 26 May 2020 NOD that “*NMED is directing the Permittee to abandon completion of the risk assessment*” is accurate but not complete. NMED and the Air Force agreed that an updated Risk Assessment would be performed concurrent with the Corrective Measures Evaluation. This update would include the new shallow soil vapor data as well as an evaluation of groundwater data collected after the completion of the interim risk assessment.

In summary, Comment 4 in the 26 May 2020 NOD does not accurately reflect the administrative record on the Risk Assessment nor does it accurately represent the path forward mutually agreed to by NMED and the Air Force. The Air Force requests that NMED issue a written clarification of Comment 4 to address these inaccuracies.

If you have any questions or would like to schedule a call to discuss these issues further, please contact Mr. Sheen Kottkamp at 505-846-7674 or sheen.kottkamp.1@us.af.mil.

Sincerely


RYAN NYE, Colonel, USAF
Vice Commander

Attachment A:

Memorandum from Juan Carlos Borrego, NMED, to Col Eric H. Froehlich and Lt Col Wayne J. Acosta, KAFB, with the subject line: *Notice of Deficiency, Risk Assessment Report, Resource Conservation and Recovery Act (RCRA) Facility Investigation Report, Bulk Fuels Facility, Release Solid Waste Management Unit ST-106/SS-111, Kirtland Air Force Base, EPA ID# NM9570024423, HWB-KAFB-13-MISC.* 24 May 2017.

Attachment B:

Memorandum from Col Richard W. Gibbs, KAFB, to Mr. John Kieling, NMED. 28 June 2017.

Attachment C:

Memorandum from Juan Carlos Borrego, NMED, to Col Richard W. Gibbs and Lt Col Wayne J. Acosta, KAFB, with the subject line: *Extension Request, Risk Assessment Report, Bulk Fuels Facility Spill, Solid Waste Management Unit ST-106/SS-111, Kirtland Air Force Base, EPA ID# NM9570024423, HWB-KAFB-MISC.* 5 July 2017.

cc:

NMED HWB (Pierard), electronic and hardcopy
NMED Resource Protection Division (Stringer), electronic only
NMED HWB (Cobrain), electronic only
NMED OGC (Hower), electronic only
SAF/IEE (Lynnes), electronic only
377 ABW/JA (Cicarelli), electronic only
AFCEC/CZ (Cash, Kottkamp, Segura), electronic only
USACE-ABQ District Office (Moayyad), electronic only
Public Info Repository, Administrative Record/Information Repository (AR/IR) and File

**NEW MEXICO
ENVIRONMENT DEPARTMENT**



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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Santa Fe, New Mexico 87505-6303
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BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 24, 2017

Colonel Eric. H. Froehlich
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117-5606

Lieutenant Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117-5270

**RE: NOTICE OF DEFICIENCY, RISK ASSESSMENT REPORT, RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) FACILITY INVESTIGATION REPORT, BULK FUELS FACILITY RELEASE
SOLID WASTE MANAGEMENT UNIT ST-106/SS-111
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423, HWB-KAFB-13-MISC**

Dear Colonel Froehlich and Lt. Colonel Acosta:

On January 31, 2017, Kirtland Air Force Base (“KAFB” or “Permittee”) submitted the Resource Conservation and Recovery Act (“RCRA”) Facility Investigation (“RFI”) Report to the New Mexico Environment Department (“NMED”). In the transmittal letter for the RFI Report, KAFB acknowledged the requirement to also submit a Risk Assessment Report (“RAR”) and stated that the RAR would be “submitted under separate cover in March 2017.”

NMED understands and acknowledges that data quality concerns with the CARB 422 soil vapor analytical method were identified during the risk assessment process. These concerns were brought to the attention of the NMED at the February 22, 2017 technical working group meeting and were formally submitted in a letter submitted to NMED dated April 3, 2017. In February, NMED gave KAFB verbal approval to proceed with the risk assessment using the TO-15 soil vapor data so that progress could continue to be made on the RAR.

Col. Froehlich and Lt. Col. Acosta

May 24, 2017

Page 2

As KAFB is aware, risk assessment is a critical component of the RCRA process. Additionally, both NMED and KAFB have been assuring the public that a RAR would be submitted in the near future, initially committing that it would be submitted with the RFI Report in January 2017, and then in March 2017 as stated in the RFI transmittal letter. By the March 2017 public meeting, KAFB had shifted the projected delivery date of the RAR to April 2017. To date, NMED has not received the RAR, nor a communication of schedule for delivery of this required document. Therefore, NMED finds KAFB to be deficient in its submittal of the RAR.

KAFB must submit the RAR no later than June 30, 2017 or provide a written request with justification for an alternative submittal date within two weeks of receipt of this letter. If an alternative submittal date is requested, it must be attainable and not an arbitrary deadline, as NMED is unwilling to further prolong its submittal.

If you have any questions regarding this letter, please contact John Kieling at (505) 476-6035 or Diane Agnew at (505) 222-9555.

Sincerely,



Juan Carlos Borrego
Deputy Secretary
Environment Department

cc: Col. M. Harner, KAFB
K. Lynnes, KAFB
A. Bodour, KAFB-AFCEC
T. Simpler, USACE
M.L. Leonard, AEHD
F. Shean, ABCWUA
L. King, EPA-Region 6 (6PD-N)
J. Kieling, NMED-HWB
D. Agnew, NMED-GWQB
S. Pullen, NMED-GWQB
M. Hunter, NMED-GWQB

File: KAFB 2017 Bulk Fuels Facility Spill


ENTERED


**DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)**



Colonel Richard W. Gibbs
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland Air Force Base NM 87117

JUN 28 2017



Mr. John Kieling
Hazardous Waste Bureau Chief
New Mexico Environment Department (NMED)
2905 Rodeo Park Drive East, Building 1
Santa Fe NM 87505-6303

Dear Mr. Kieling

The Air Force is requesting an extension on the submittal date for the Kirtland Air Force Base Bulk Fuels Facility release Solid Waste Management Unit ST-106/SS-111 Risk Assessment Report from June 30, 2017 to July 28, 2017 per NMED's Notice of Deficiency dated May 24, 2017. As a final level of review, Air Force Civil Engineer Center (AFCEC) utilized Dr. Shannon Garcia as a subject matter expert (SME) who has extensive experience with human health risk assessments for sites in New Mexico. During her review, Dr. Garcia identified two key changes to the risk assessment that would enhance the analysis of soil gas data by being more conservative and comprehensive. We request this additional time to incorporate our SME's comments, which will involve additional calculations and review.

If you have any questions or concerns, please contact Mr. Scott Clark at (505) 846-9017 or at scott.clark@us.af.mil or Dr. Adria Bodour at (210) 241-6276 or at adria.bodour.1@us.af.mil.

Sincerely

RICHARD W. GIBBS, Colonel, USAF
Commander

cc:

NMED, Deputy Secretary (Borrego), letter
NMED-GWQB (Agnew, Hunter), letter
EPA Region 6 (Ellinger, King), letter
SAF-IEE (Lynnes), electronic only
AFCEC/CZ (Bodour, Clark, O'Grady), electronic only
USACE-ABQ District Office (Dreeland, Phaneuf, Salazar, Sanchez, Simpler), electronic only
Public Info Repository, Administrative Record/Information Repository (AR/IR) and File



**ENTERED**

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
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BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

July 5, 2017

Colonel Richard W. Gibbs
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117-5606

Lieutenant Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117-5270

**RE: EXTENSION REQUEST
RISK ASSESSMENT REPORT, BULK FUELS FACILITY SPILL
SOLID WASTE MANAGEMENT UNIT ST-106/SS-111
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423, HWB-KAFB-MISC**

Dear Colonel Gibbs and Lt. Colonel Acosta:

The New Mexico Environment Department (“NMED”) received the U.S. Air Force’s (“Permittee”) request for an extension to submit the *Bulk Fuels Facility release Solid Waste Management Unit ST-106/SS-111 Risk Assessment Report*. The Permittee is requesting that the due date for the Risk Assessment Report be extended to July 28, 2017 instead of June 30, 2017. The Permittee cites the need for additional time to incorporate comments received from the Air Force Civil Engineer Center subject matter expert (“SME”). The Permittee believes that the incorporation of the SME comments will result in an enhanced soil gas data analysis that is more conservative and comprehensive for the site.

The extension request is hereby approved. Therefore, the Risk Assessment Report is due no later than July 28, 2017.

KAFB4557



Col. Gibbs and Lt. Col. Acosta

July 5, 2017

Page 2

If you have any questions regarding this letter, please contact Diane Agnew at (505) 222-9555.

Sincerely,



Juan Carlos Borrego
Deputy Secretary
Environment Department

cc: Col. M. Harner, KAFB
K. Lynnes, KAFB
A. Bodour, KAFB-AFCEC
T. Simpler, USACE
M.L. Leonard, AEHD
F. Shean, ABCWUA
L. King, EPA-Region 6 (6PD-N)
J. Kieling, NMED-HWB
D. Agnew, NMED-GWQB
S. Pullen, NMED-GWQB
M. Hunter, NMED-GWQB

File: KAFB 2017 Bulk Fuels Facility Spill



**DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)**

14 Aug 20

Colonel Ryan S. Nye, USAF
Vice Commander
377th Air Base Wing
2000 Wyoming Blvd SE
Kirtland AFB NM 87117

Mr. Kevin Pierard and Mr. Dave Cobrain
Hazardous Waste Bureau (HWB)
New Mexico Environment Department (NMED)
2905 Rodeo Park Drive East, Building I
Santa Fe NM 87505

Dear Mr. Pierard

The Air Force respectfully requests a meeting with the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB) in the 31 July 2020 letter to discuss comments #5, #7, and #8 within the 26 May 2020 letter "*Disapproval, Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, November 2019, Kirtland Air Force Base, New Mexico EPA ID# NM9570024423 HWB-KAFB-19-014*". The meeting, once scheduled and conducted, will inform the Air Force regarding the appropriate path forward in addressing comments and making revisions to the work plan based on the above referenced disapproval letter. NMED-HWB requested a revised work plan by 28 August 2020. Additional time will be required for NMED-HWB review of the draft response to comments table provided with the Air Force 31 July 2020 letter, scheduling and conducting a meeting to discuss the above referenced comments, and NMED-HWB preparation of a formal response regarding the discussion outcome. Furthermore, the preparation, review, and coordination of the revised work plan for submission to the NMED-HWB will require additional time. Therefore, Kirtland Air Force Base (AFB) respectfully requests a one hundred eighty (180) day extension request for the submission of the revised work plan from 28 August 2020 to 24 February 2021. In addition, the Air Force understands the NMED-HWB identifies a review time for an investigative work plan as two hundred seventy (270) days as codified in 20.4.2 New Mexico Administrative Code.

Upon NMED-HWB approval of the revised work plan, the installation and sampling of the soil vapor monitoring wells will coincide with the seasonal summer and winter sampling events as specified in the work plan.

Kirtland AFB appreciates the valued working relationship with you and your department. If you have any questions regarding this request, please contact Mr. Sheen Kottkamp at (806) 463-0811 or email sheen.kottkamp.1@us.af.mil.

Sincerely

RYAN S. NYE, Colonel, USAF
Vice Commander

cc:

NMED HWB (Pierard, Cobrain), letter and electronic

NMED RPD (Stringer), electronic only

EPA Region 6 (King, Ellinger), electronic only

SAF/IEE (Lynnes), electronic only


AFCEC/CZ (Cash, Kottkamp, Segura), electronic only

USACE-ABQ District Office (Moayyad, Phaneuf, Dreeland, Cordova, Kunkel), electronic only

Public Info Repository, Administrative Record/Information Repository (AR/IR) and File

**40 CFR 270.11
DOCUMENT CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.



RYAN S. NYE, Colonel, U.S. Air Force
Vice Commander, 377th Air Base Wing

14 Aug 20
Date



DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)

31 July 2020

Colonel David S. Miller, USAF
Commander
377th Air Base Wing
2000 Wyoming Blvd SE
Kirtland AFB NM 87117

Mr. Kevin Pierard and Mr. Dave Cobrain
Hazardous Waste Bureau (HWB)
New Mexico Environment Department (NMED)
2905 Rodeo Park Drive East, Building 1
Santa Fe NM 87505

Dear Mr. Pierard and Mr. Cobrain

The Air Force has reviewed the 26 May 2020 letter "*Disapproval, Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, November 2019, Kirtland Air Force Base, New Mexico EPA ID# NM9570024423 HWB-KAFB-19-014*". Kirtland Air Force Base (AFB) respectfully requests a meeting with the Hazardous Waste Bureau (HWB) to discuss comments #5, #7, and #8 to facilitate our development of a revised work plan. A draft response to comments table is attached to assist in your preparation for this meeting.

As discussed previously with Mr. Pierard and Ms. Stringer, the Air Force has concerns regarding Comment #4, which discusses the role of the 2017 Risk Assessment in the development of the 2019 Work Plan. The Air Force has responded to those concerns in a separate letter dated 16 July 2020.

Please contact Mr. Sheen Kottkamp at (806)463-0811 or email sheen.kottkamp.1@us.af.mil to set up a meeting to assist us in resolving these outstanding comments.

Sincerely

DAVID S. MILLER, Colonel, USAF
Commander

Attachment

Attachment 1. Document Review Preliminary Comment Response Table

cc:

NMED HWB (Pierard, Cobrain), letter and electronic
NMED RPD (Stringer), electronic only
EPA Region 6 (King, Ellinger), electronic only
SAF/IEE (Lynnes), electronic only
AFCEC/CZ (Cash, Kottkamp, Segura), electronic only
USACE-ABQ District Office (Moayyad, Phaneuf, Dreeland, Cordova, Kunkel), electronic only
Public Info Repository, Administrative Record/Information Repository (AR/IR) and File



Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

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James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 18, 2020

Colonel David S. Miller
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Lt. Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil engineer Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117

**RE: REQUEST FOR CLARIFICATION
DISAPPROVAL COMMENT 4
WORK PLAN FOR SHALLOW SOIL VAPOR SAMPLING
BULK FUELS FACILITY SOLID WASTE MANAGEMENT UNITS ST-106 AND SS-
111 KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID# NM6213820974
HWB-KAFB-19-014**

Dear Colonel Miller and Lt. Colonel Acosta:

The New Mexico Environment Department (NMED) is in receipt of the Kirtland Air Force Base (Permittee) July 16, 2020 request for clarification (Request) concerning Comment 4 found in the May 26, 2020 Disapproval of the Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111. In the Request, the Permittee states, "[c]omment 4 does not accurately reflect the administrative record on the Risk Assessment and does not accurately represent the path forward mutually agreed to by NMED and the Air Force as detailed in this letter."

Based upon the contents of the July 16 Request, the Permittee may have interpreted

Comment 4 more broadly than NMED intended. Comment 4 of the May 26, 2020 Disapproval is specifically in reference to the 2017 Risk Assessment associated with the vapor intrusion pathway. The vapor intrusion pathway portion of the 2017 Risk Assessment was not approved by NMED and may not be referenced in the soil vapor workplan nor relied upon in decision-making regarding shallow soil vapor monitoring. During a discussion on May 7, NMED and the Permittee agreed to delay any further effort on the soil vapor risk assessment until the Corrective Measures Evaluation (“CME”) phase of the project and acknowledged that, as the final data are processed, previously approved risk assessments may need to be updated during the CME phase based on more recent data. NMED attempted to reflect the May 7 discussion in Comment 4.

I hope this clarifies Comment 4 contained in the May 26, 2020 Disapproval. As a reminder, the Permittee response to the May 26, 2020 Disapproval is due on August 27, 2020. Please reference this clarification correspondence in your response.

Should you have any questions please contact me at (505) 476-6035.

Sincerely,

Kevin M. Pierard, Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
L. Andress, NMED HWB
L. King EPA Region 6 (6LCRRC)
S. Kottkamp, KAFB
K. Lynnes, KAFB

File: KAFB 2020 Bulk Fuels Facility Spill and Reading

Certified Mail - Return Receipt Requested

October 3, 2021

Colonel Jason F. Vattioni
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, New Mexico 87117

Re: WORK PLAN FOR THE SHALLOW SOIL VAPOR MONITORING BULK FUELS FACILITY SOLID WASTE MANAGEMENT UNITS ST-106/SS-11, MAY 2021, KIRTLAND AIR FORCE BASE, NEW MEXICO; EPA ID# NM9570024423; HWB-KAFB-21-001

Dear Colonel Vattioni:

On May 25, 2021, the New Mexico Environment Department (NMED) received the U.S. Air Force's (Permittee) submission dated May 21, 2021: *Work Plan for the Shallow Soil Vapor Monitoring Bulk Fuels Facility Solid Waste Management Units ST-106/SS-11, May 2021* (Work Plan). NMED hereby approves the Work Plan.

The Work Plan was developed to perform additional shallow soil vapor sampling to verify the conclusions of the Risk Assessment Report, Bulk Fuels Facility Spill; Solid Waste Management Unit ST-106/SS-II, dated July 15, 2017. This requirement was established in NMED's letter sent February 25, 2019: *RE: BULK FUELS FACILITY SPILL; SOLID WASTE MANAGEMENT UNIT ST-106/SS-111 KIRTLAND AIR FORCE BASE HWB-KAFB-19-MISC*. In addition, the Work Plan reflects the incorporation of NMED's Notice of Disapproval (NOD) comments, sent May 26, 2020, that were still applicable after clarification meetings were held between James Kenney, NMED Cabinet Secretary and Mark Correll, Deputy Assistant Secretary for Environment, Safety, and Infrastructure in February 2021 consistent with the informal dispute resolution process.

The Permittee is directed to proceed with implementation of the shallow soil vapor sampling as described in the Work Plan. If sampling data collected during the first phase identifies soil vapor concentrations that indicate additional sampling is needed to "*demonstrate that there is no risk to off-site receptors located north of the Base,*" the Permittee shall work as directed by NMED to develop a second phase work plan to extend sampling from the point of detection outward. This approach builds on the concepts detailed in Sections 4.0, 6.2.1, and 6.3.1 of the U.S. Environmental Protection Agency (EPA) *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air, Office of Solid Waste and Emergency Response, OSWER Publication 9200.2-154 (June 2015)*, which require investigations to delineate the areal extent of a subsurface vapor plume as well as preferential pathways. Following successful completion of such sampling events and subsequent data validation, the Permittee shall provide documentation of the sampling results to NMED for review prior to the submittal of the Shallow Soil Vapor Monitoring Report.

I appreciate your attention to this matter and look forward to working with you on the broader remedial efforts to secure the final remedy for the bulk fuel facility release at the base. If you have any questions regarding this letter, please do not hesitate to contact me at (505) 469-6521 or at Chris.Catechis@state.nm.us.

Sincerely,

Christopher S. Catechis, Acting Director
Resource Protection Division
New Mexico Environment Department

cc: Ricardo Maestas, Acting Chief NMED HWB
L. Andress, NMED HWB
L. King, EPA Region 6 (6LCRRC)
S. Kottkamp, R. Wortman, AFCEC
Mark A. Correll, Deputy Assistant Secretary for Environment, Safety and Infrastructure

File: KAFB 2021 and Reading



333 Rio Rancho Blvd.
Rio Rancho, NM 87124
505.867.6990

FIGURE B-1 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: Kirtland Air Force Base - Randolph Rd.	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4" initial, 3 1/4" final	BORING NO. SVMW-16	
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 5	
		DRILLING START FINISH	
		WATER LEVEL TIME	930
NORTHING 35.05116° North EASTING: 106.57172° West DATUM: WGS84 ELEVATION: 5352' amsl	DATE	DATE	DATE
	CASING DEPTH	2/9/22	2/9/22
DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	SURFACE CONDITIONS: Bare ground, re-graded from air knife exploration to 6' bgs		

No Water Encountered
Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ³	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
-1		0-6' Well-graded sand to silty sands (SW to SM), re-worked surface sediments (Santa Fe group), loose, well graded fine sand with silt, several well rounded cobbles, friable, NP, dry, light brown/tan	0	1	90	10	SW-SM	7.5YR 7/4	friable	0%	0 ppm VOC
-2		6-10' Well graded fine sand with increasing silt (SM), caliche bands, minor subangular gravel, friable to slightly indurated, NP, brown, Santa Fe group	0	1	70	30	SM	7.5YR 5/6	slightly indurat.	0%	0 ppm VOC
-3		10-14' Silt/sand mix with caliche bands (SM), friable to moderately indurated, NP, light brown, Santa Fe group.	0	2	60	38	SM	7.5YR 4/6	friable to slightly indurat.	0%	0 ppm VOC
-4		14-15' Tighter, very fine sandy/silt mix (SM to ML), increasing fines and lower caliche content, NP, friable, brown, Santa Fe group.	0	0	30	70	SM-ML	7.5YR 4/6	friable	0%	0 ppm VOC
-5		15' Final depth									

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhas, P.G.

DATE: February 9, 2022

PROJECT NO.: 01459922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx

FIGURE B-2 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: Kirtland Air Force Base - Randolph Rd.	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4"	BORING NO. SVMW-17
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 6
	NORTHING 35.05109° North EASTING: 106.57987° West DATUM: WGS84 ELEVATION: 5349' amsl	DRILLING START FINISH
	DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	SURFACE CONDITIONS: Bare ground, re-graded from air knife exploration to 6' bgs

No Water Encountered Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/ CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
-1		0-7' Loose, fine silty sand, minor subrounded gravels (SM), re-worked surface sediments, friable, NP, dry, light tan/pink, Santa Fe group	0	1	60	40	SM	7.5 YR 8/2	friable	0%	0 ppm VOC
-7		7-11' Well graded fine silty sand (SW to SM), Santa Fe Group, NP, compacted, friable, minor caliche. 5% fine subrounded gravel at 10', reddish brown	0	5	70	25	SW-SM	5 YR 5/4	friable	0%	0 ppm VOC
-11		11-16.5' Fine silty sand with some clays (SM to ML), friable to slightly indurated, NP, slightly damp, light reddish brown, Santa Fe group	0	0	60	40	SM-ML	5 YR 6/4	slightly indur. to friable	0%	0 ppm VOC
-16	16.5' Final depth										

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhas, P.G.

PROJECT NO.: 01459922.00

DATE: February 9, 2022

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx



333 Rio Rancho Blvd.
Rio Rancho, NM 87124
505.867.6990

FIGURE B-3 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: Kirtland Air Force Base - Randolph Rd. NORTHING 35.05108° North EASTING: 106.57835° West DATUM: WGS84 ELEVATION: 5351' amsl	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4"	BORING NO. SVMW-18
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 7
	WATER LEVEL TIME DATE	DRILLING START FINISH 1153 1230
	CASING DEPTH	DATE DATE 2/9/22 2/9/22
DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	SURFACE CONDITIONS: Bare ground, re-graded from air knife exploration to 6' bgs	

No Water Encountered Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
0-7'		Very fine sandy silt (SM to ML), re-worked surface sediments, loose, powdery, NP, friable, some subrounded surface cobbles/gravel, dry, Santa Fe group	0	1	50	49	SM-ML	10 YR 8/1	friable	0%	0 ppm VOC
7-9'		Very fine silty sand (ML), damp, some clay nodules, caliche pebbles, SP, friable to slightly indurated, brown, Santa Fe group	0	0	40	60	ML	7.5 YR 6/4	friable to slightly indur.	0%	0 ppm VOC
9-11'		Fine to very fine sands with clays (SM to ML), well graded, friable, NP, light brown, Santa Fe group.	0	0	50	50	SM-ML	7.5 YR 6/4	friable	0%	0 ppm VOC
11-14'		Silty sand (ML), fine, NP, friable, caliche stringers, minor subangular gravels, brown, Santa Fe group,	0	0	60	40	ML	7.5 YR 6/4	friable	0%	0 ppm VOC
14-14.5'		Shale /limestone lense approx 4" thick, wells indurated, NP, non-friable, grey, Santa Fe group	90	10	0	0	--		non-friable	0%	0 ppm VOC
14.5-15'		9" Fine silty sand (ML), no caliche, NP, friable, light brown, Santa Fe group.	0	0	50	50	ML	7.5 YR 6/4	friable	0%	0 ppm VOC
15'		9" Final depth									

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhas, P.G.

DATE: February 9, 2022

PROJECT NO.: 01459922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx

FIGURE B-4 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: Kirtland Air Force Base - Randolph Rd. NORTHING 35.05113° North EASTING: 106.57736° West DATUM: WGS84 ELEVATION: 5330' amsl	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4" initial, 3 1/4" final	BORING NO. SVMW-19
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 8
	WATER LEVEL TIME DATE CASING DEPTH	DRILLING START FINISH 1337 1415 DATE DATE 2/9/22 2/9/22
	DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	

No Water Encountered Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
1		0-7.5' Silty sand (SM), re-worked surface sediments, loose, powdery, NP, friable, some subrounded surface cobbles/gravel, dry, light tan/pink, Santa Fe group	0	1	70	29	SM	7.5 YR 8/3	friable	0%	0 ppm VOC
2											
3											
4											
5											
6											
7											
8		7.5-11' Fine silty sand with caliche veins (SM), minor subrounded gavel, damp with occasional 3-5mm clay nodules (< 1%) NP, friable, yellowish brown, Santa Fe group	0	1	70	29	SM	10 YR 5/4	friable	0%	0 ppm VOC
9											
10											
11		11-14' Fine silty sand with caliche stringers (SM to ML), and occasional mica flakes, NP, friable, light brown, Santa Fe group	0	0	60	40	SM-ML	7.5 YR 6/4	friable	0%	0 ppm VOC
12											
13											
14		14-16' Fine, silty sand (SM) without caliche, slightly damp, no clays, NP, friable, light brown, Santa Fe group.	0	0	70	30	SM	7.5 YR 6/4	friable	0%	0 ppm VOC
15											
16		16' Final depth									

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhas, P.G.

DATE: February 9, 2022

PROJECT NO.: 01458922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx

FIGURE B-5 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: U.S.S. Bullhead Park Parking Lot	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4" initial, 3 1/4" final		BORING NO. SVMW-20		
	SAMPLING METHOD: Continuous Core - Acetate sleeve		SHEET 4		
	NORTHING 35.05313° North EASTING: 106.57812° West DATUM: WGS84 ELEVATION: 5337' amsl		DRILLING START FINISH		
			0954 1020 DATE DATE 2/2/22 2/2/22		
DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---		SURFACE CONDITIONS: Asphalt parking lot			

No Water Encountered
 Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/ CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
1		3" Asphalt, 3"-12" Reworked subgrade 1-8' Well graded fine silty sand and coarse sand @1'-4' bgs. Finer at 5' (SM), no clays or caliche, brown, Santa Fe Group.	0	0	70	30	SM	7.5 YR 5/6	friable	0%	0 ppm VOC
8		8-9' Silty sand with Increasing caliche content (SM), fine silty sand with minor subangular gravels (<1%), reddish brown, Santa Fe group	0	1	60	39	SM	5 YR 5/4	friable	0%	0 ppm VOC
9		9-14' Well-graded gravelly sand with several subangular caliche-coated oversize clasts >1" (GM to SW), fine silty sand matrix, damp, reddish brown, Santa Fe group	2	15	60	23	GM-SW	5 YR 5/4	friable	0%	0 ppm VOC
14		14-15' Fine silty sand (SM), damp, friable, NP, reddish brown, Santa Fe group	0	0	80	20	SM	5 YR 5/4	friable	0%	0 ppm VOC
15		15' Final depth									

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhas, P.G.

DATE: February 2, 2022

PROJECT NO.: 01458922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx

FIGURE B-6 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: U.S.S. Bullhead Park Parking Lot	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4" initial, 3 1/4" final	BORING NO. SVMW-21
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 2
NORTHING 35.05289° North EASTING: 106.57710° West DATUM: WGS84 ELEVATION: 5341' amsl	WATER LEVEL TIME DATE CASING DEPTH	DRILLING START FINISH 1230 1300 DATE DATE 2/1/22 2/1/22
	No Water Encountered Vapor Probe Only	
	DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	
	SURFACE CONDITIONS: Asphalt parking lot	

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
		3" Asphalt, 3-6" Reworked subgrade									
-1		1-5' Fine silty sand (SM), slightly damp, occasional caliche nodules, several oversize, subrounded cobbles, friable, NP, light brown, Santa Fe Group.	0	1	95	4	SM	7.5 YR 6/4	friable	0%	0 ppm VOC
-5		5-11' Fine silty sand (SM), slightly moist, semi-friable, NP, caliche nodules, subangular caliche-coated gravel, reddish yellow, Santa Fe group.	0	1	79	20	SM	7.5 YR 6/6	friable	0%	0 ppm VOC
-11		11-14' Silty sand, some clay nodules/fines (SM to SC), semi-plastic, damp, reddish brown, Santa Fe group	0	0	60	40	SM-SC	7.5 YR 5/4	friable, semi-plastic	0%	0 ppm VOC
-14		14-15' Silty sand with very minor subangular gravels (SM), friable, NP, reddish brown, Santa Fe group	0	1	64	35	SM	7.5 YR 5/4	friable	0%	0 ppm VOC
-15		15' Final depth									

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhas, P.G.

DATE: February 1, 2022

PROJECT NO.: 01459922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx

FIGURE B-7
SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: U.S.S. Bullhead Park Parking Lot NORTHING 35.05285° North EASTING: 106.57606° West DATUM: WGS84 ELEVATION: 5318' amsl	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4" initial, 3 1/4" final	BORING NO. SVMW-22
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 3
	WATER LEVEL TIME DATE	DRILLING START FINISH 1530 1600
	CASING DEPTH	DATE DATE 2/1/22 2/1/22
DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	SURFACE CONDITIONS: Asphalt parking lot	No Water Encountered Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/ CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
0		3" Asphalt, 3-6" Reworked subgrade									
1-4'		Fine silty sand (SM), caliche veins, minor subrounded gravels, dry, friable, NP, light tan/pink, Santa Fe group	0	1	80	19	SM	5 YR 8/3	friable	0%	0 ppm VOC%
4-8'		Well graded fine silty sand (SW to SM), less caliche, minor subrounded gravels, damp, friable, NP, light tan, Santa Fe group	0	1	79	20	SW-SM	5 YR 8/3	friable	0%	0 ppm VOC%
8-14'		Well graded fine silty sand (SW to SM), no clays, minor gravels, friable, dry, NP, light brown, Santa Fe group	0	1	69	30	SW-SM	7.5 YR 6/4	friable	0%	0 ppm VOC%
14-15'		Fine sand with silt and increasing clays and caliche veins (SM to ML), friable, NP, light yellowish brown, Santa Fe group	0	0	60	40	SM-ML	10 YR 6/4	friable	0%	0 ppm VOC%
15'		Final depth									

DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuhus, P.G.

DATE: February 1, 2022

PROJECT NO.: 01459922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx

FIGURE B-8 SHALLOW SOIL VAPOR MONITORING PROBE

SITE NAME AND LOCATION: VA Hospital Employee East Parking Lot	DRILLING METHOD: Direct-Push Geoprobe, 2 1/4" initial, 3 1/4" final	BORING NO. SVMW-23
	SAMPLING METHOD: Continuous Core - Acetate sleeve	SHEET 1
NORTHING: 35.05433° North EASTING: 106.57694° West DATUM: WGS84 ELEVATION: 5358' amsl	WATER LEVEL	DRILLING START FINISH
	TIME	1000 1130
	DATE	DATE
	CASING DEPTH	2/1/22 2/1/22
DRILL RIG: Geoprobe 6620-DT - Tracked ANGLE: 90 BEARING: ---	SURFACE CONDITIONS: Asphalt parking lot	

No Water Encountered Vapor Probe Only

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Description of Penetrated Materials	% OVERSIZE ¹	% GRAVEL ²	% SAND ²	% FINES ²	USCS CLASSIFICATION	COLOR	CONSISTENCY/CEMENTATION	Ambient Air CH ₄ Readings	OTHER TESTS
0		3" Asphalt 3"-18" Reworked subgrade, well sorted sand/gravel (SP to SM), backfill, auger scar	0	5	95	0	SP-SM	10 YR 6/2	friable	0%	0 ppm VOC
18"-6'		Well graded silty sand (SW to SM), minor caliche, subangular gravels, light brown, slightly moist, friable, NP, Santa Fe group	0	5	80	15	SW-SM	7.5 YR 5/6	friable	0%	0 ppm VOC
6'-7'		Silty sand (SM), decreasing gravels, increasing caliche nodules, friable, NP, Santa Fe group	0	4	70	26	SM	7.5 YR 5/6	friable	0%	0 ppm VOC
7'-9'		Fine silty sand with some clays (SM to ML), decreasing caliche, fine silty sand, friable, semi-plastic.	0	0	70	30	SM-ML	7.5 YR 5/6	friable	0%	0 ppm VOC
9'-12'		Well graded silty sands (SW to SM) with Increasing coarse sand fraction, friable, NP,	0	0	80	20	SW-SM	10 YR 7/4	friable	0%	0 ppm VOC
12'-13'		Silty sand with clay (SC to ML), semi-plastic, yellow-brown Santa Fe group	0	0	50	50	SC-ML	7.5 YR 8/8	friable	0%	0 ppm VOC
13'-15'		Fine-grained sandy silt (SW to SC), minor clays and subrounded gravel, dark tan/brown, Santa Fe group	0	2	70	28	SW-SC	7.5 YR 8/3	friable	0%	0 ppm VOC
15'		15' Final depth									

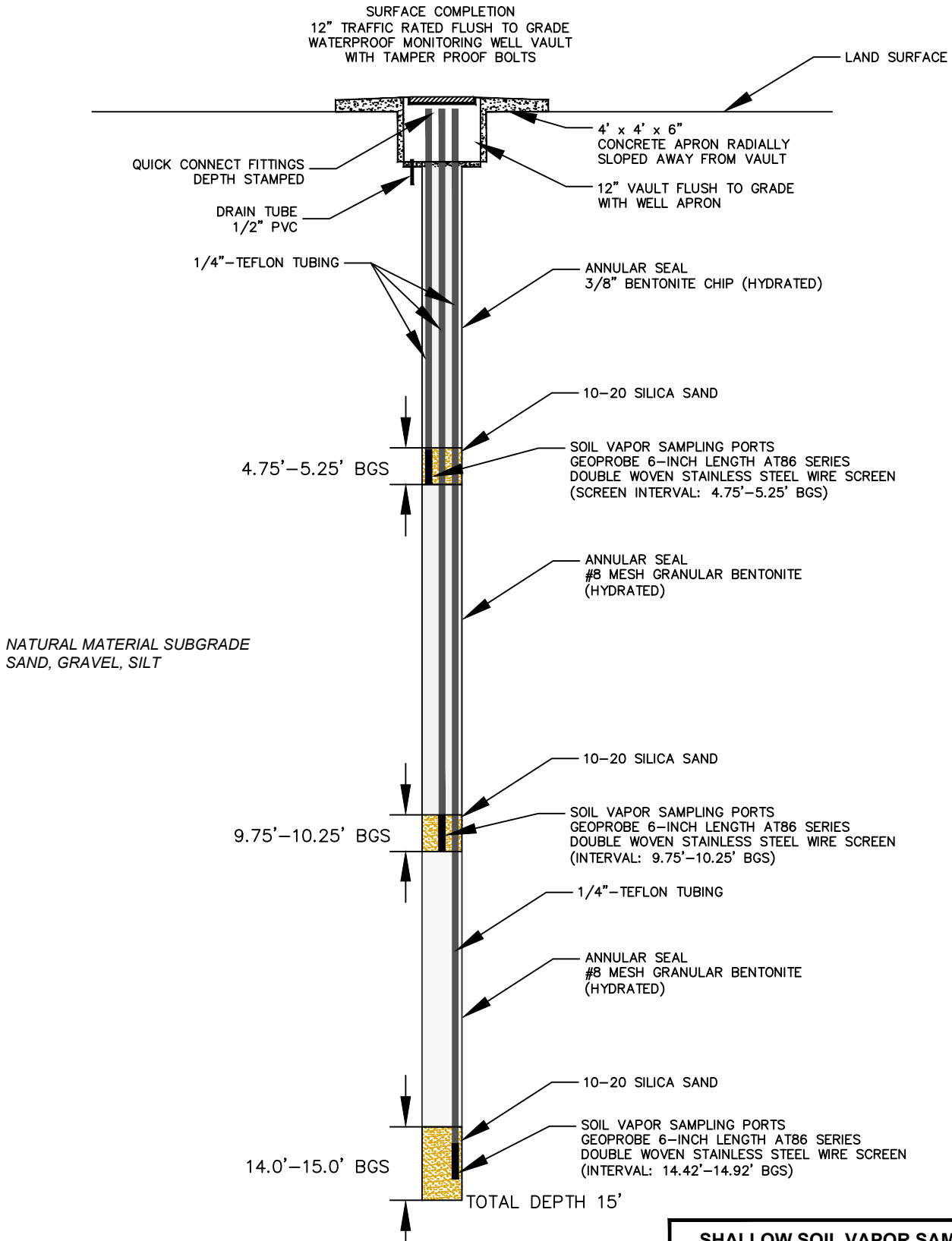
DRILLING CONTRACTOR: Earthworx

LOGGED BY: Andrew N. Yuihas, P.G.

DATE: February 1, 2022

PROJECT NO.: 01459922.00

FILE NAME: KAFB-BFF-SVMW-Logs.xlsx



**SHALLOW SOIL VAPOR SAMPLING
KIRTLAND AIR FORCE BASE**

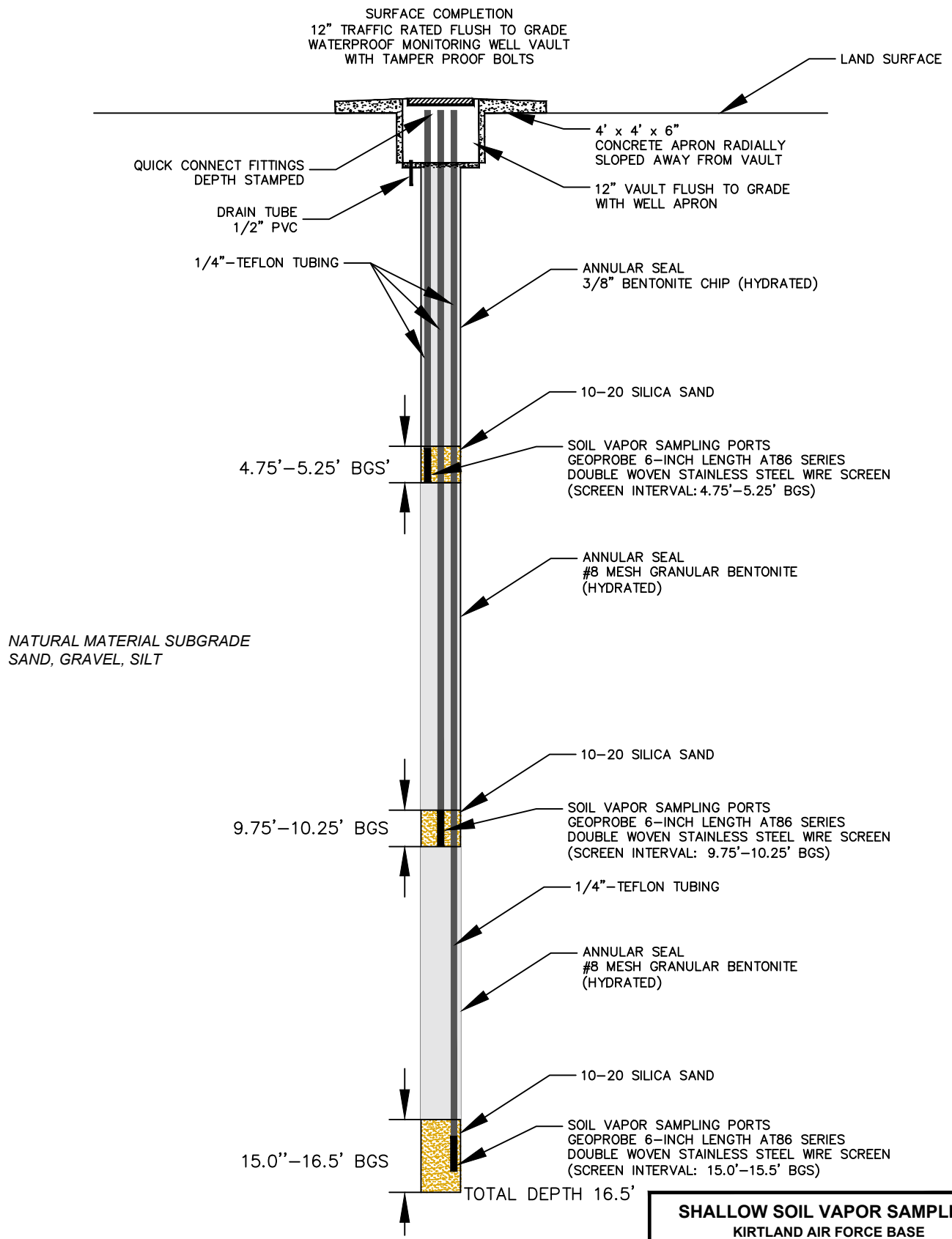
FIGURE B-9

**SHALLOW VAPOR MONITORING PROBE
SVMW-16**

A:\2022\4599.22\1MW-SVMW-16.DWG

REVISION DATE:
11/21/2022

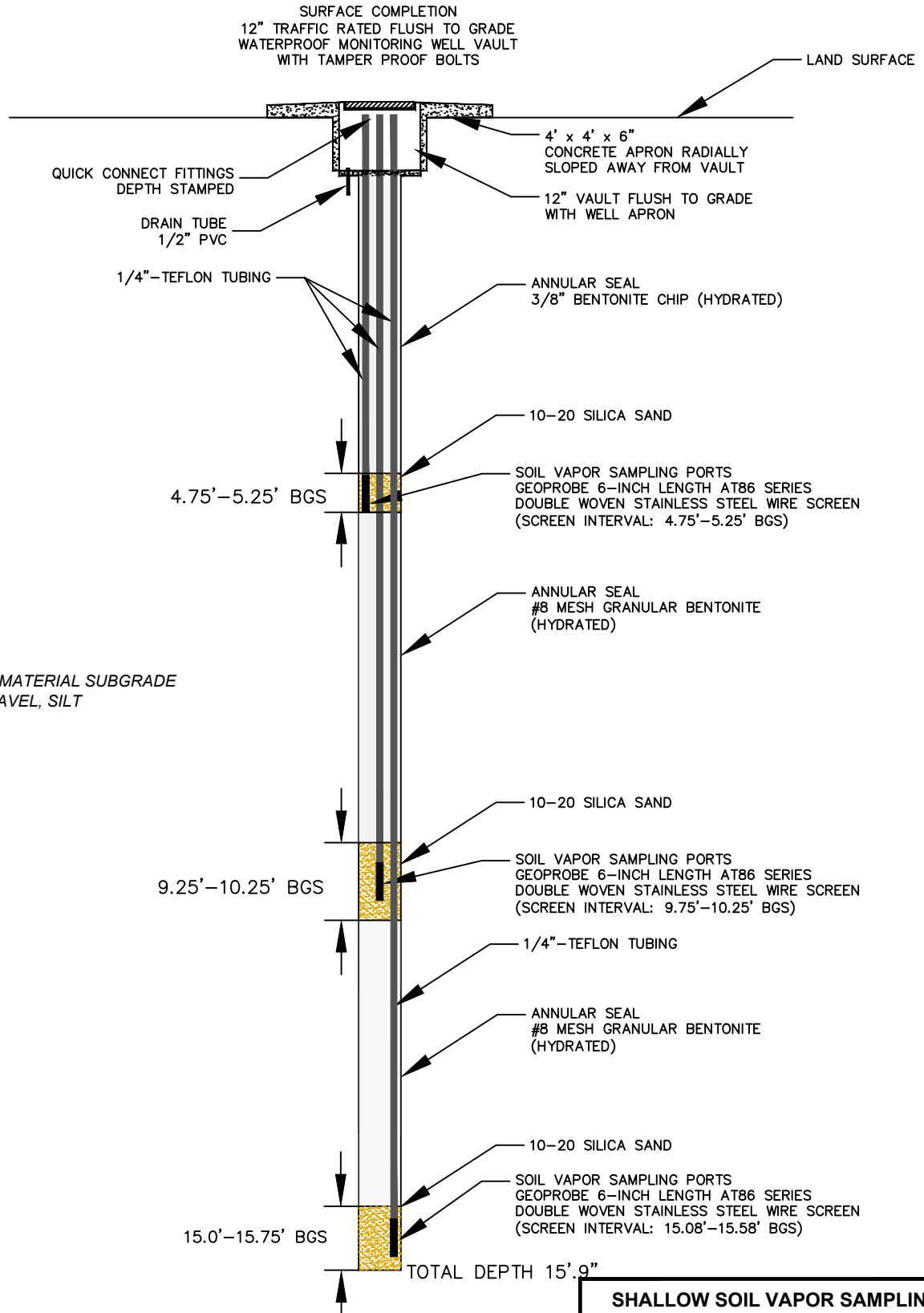
NOT TO SCALE



NOT TO SCALE

B-12

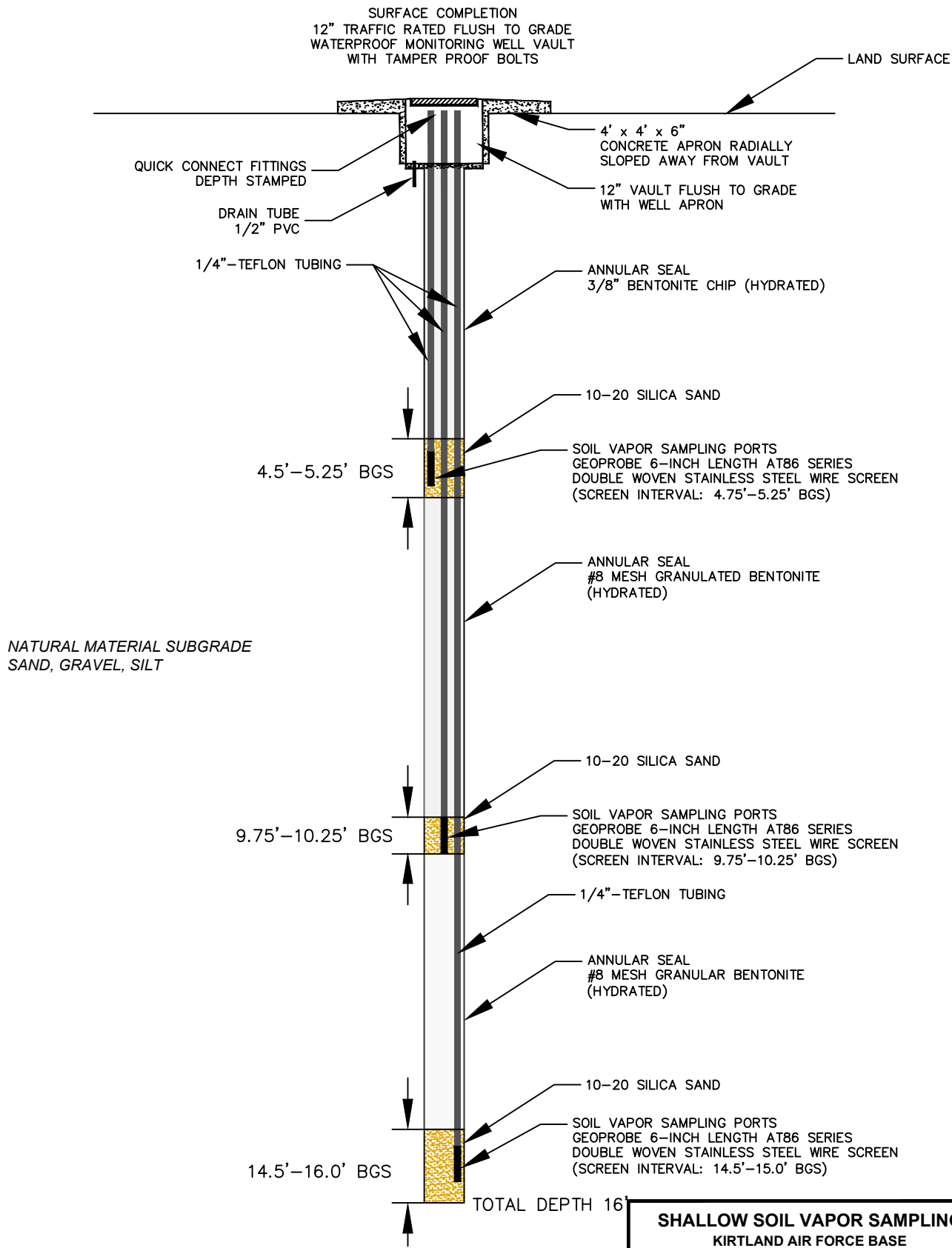
SHALLOW SOIL VAPOR SAMPLING KIRTLAND AIR FORCE BASE	
FIGURE B-10	
SHALLOW VAPOR MONITORING PROBE SVMW-17	
A:1202214599.22\MW-SVMW-17.DWG	REVISION DATE: 11/21/2022



NOT TO SCALE

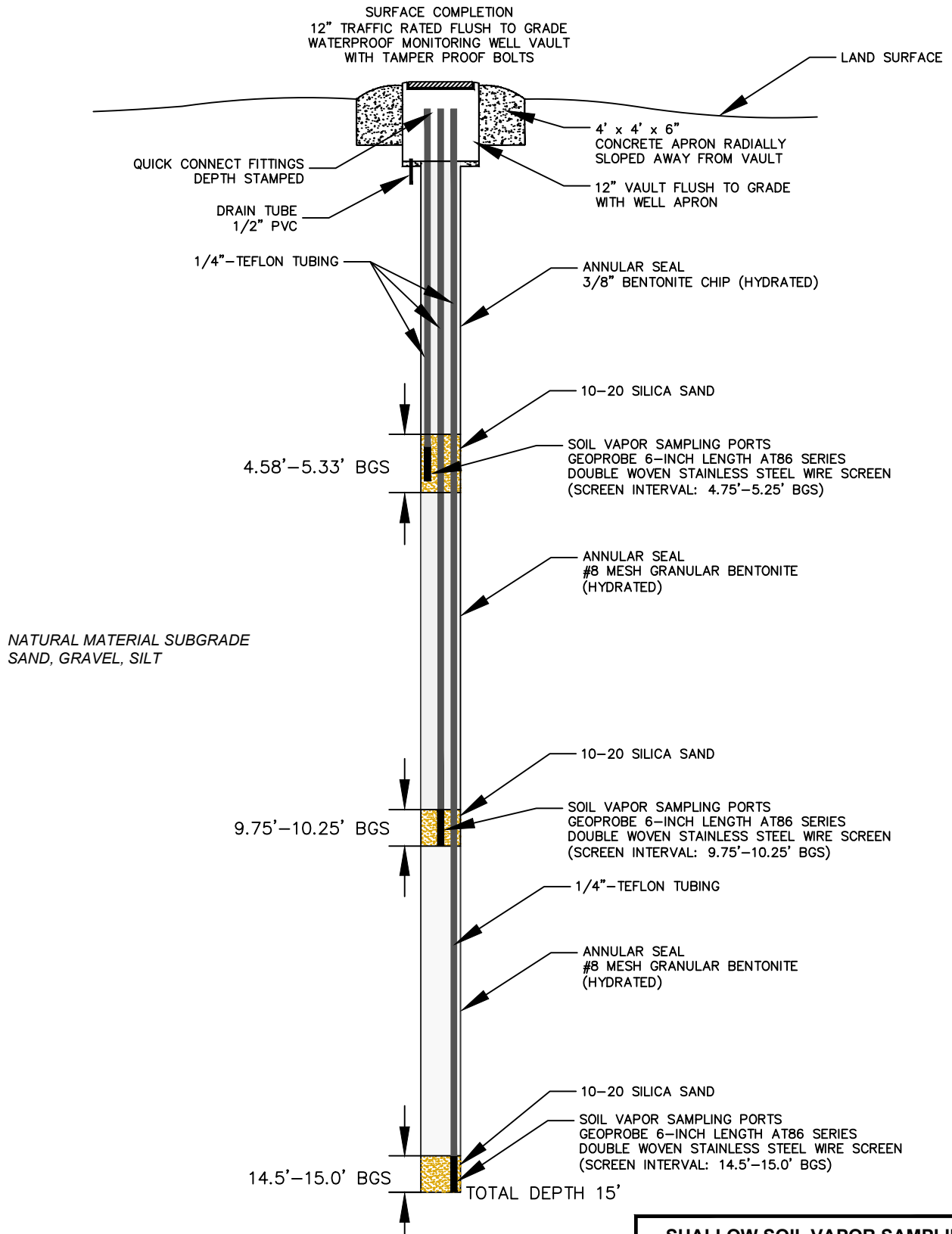
B-13

SHALLOW SOIL VAPOR SAMPLING KIRTLAND AIR FORCE BASE	
FIGURE B-11	
SHALLOW VAPOR MONITORING PROBE SVMW-18	
A:1202214599.22\1MW-SVMW-18.DWG	REVISION DATE: 11/21/2022



NOT TO SCALE

SHALLOW SOIL VAPOR SAMPLING KIRTLAND AIR FORCE BASE	
FIGURE B-12	
SHALLOW VAPOR MONITORING PROBE SVMW-19	
A:1202214599.22\MW-SVMW-19.DWG	11/21/2022



**SHALLOW SOIL VAPOR SAMPLING
KIRTLAND AIR FORCE BASE**

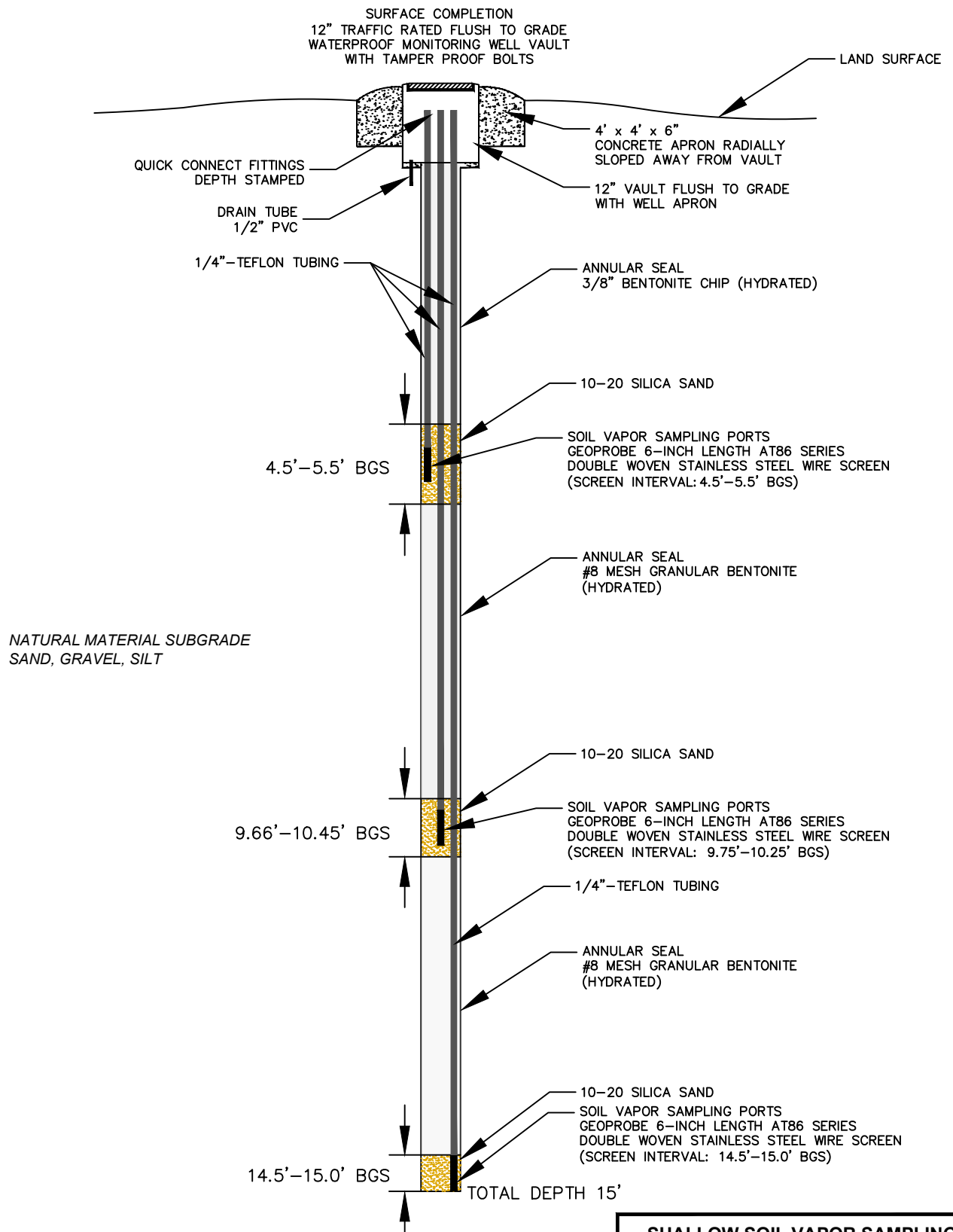
FIGURE B-13

**SHALLOW VAPOR MONITORING PROBE
SVMW-20**

A:1202214599.22\1MW-SVMW-20.DWG

11/21/2022

NOT TO SCALE



**SHALLOW SOIL VAPOR SAMPLING
KIRTLAND AIR FORCE BASE**

FIGURE B-14

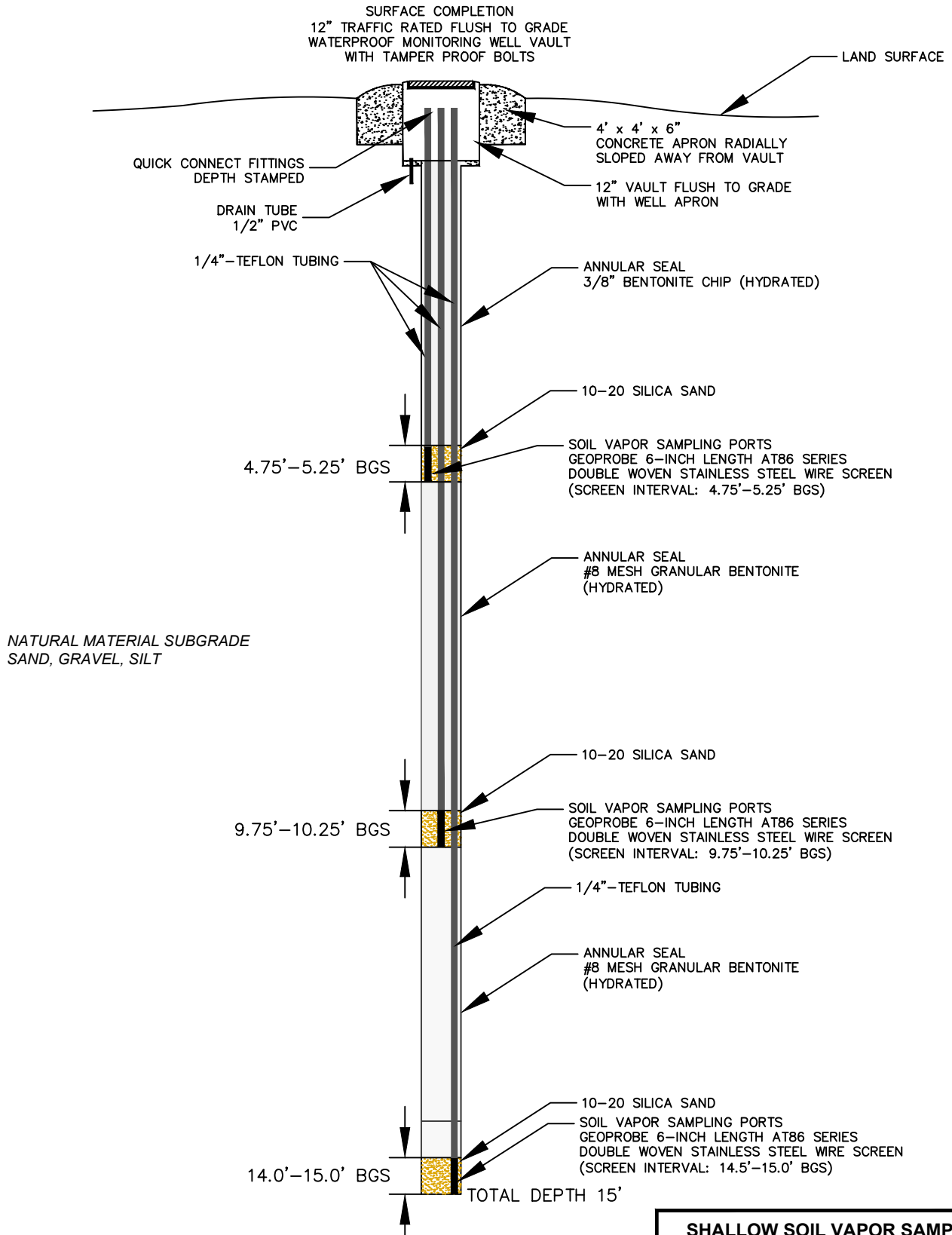
**SHALLOW VAPOR MONITORING PROBE
SVMW-21**

A:1202214599.22\MW-SVMW-21.DWG

REVISION DATE:
11/21/2022

NOT TO SCALE

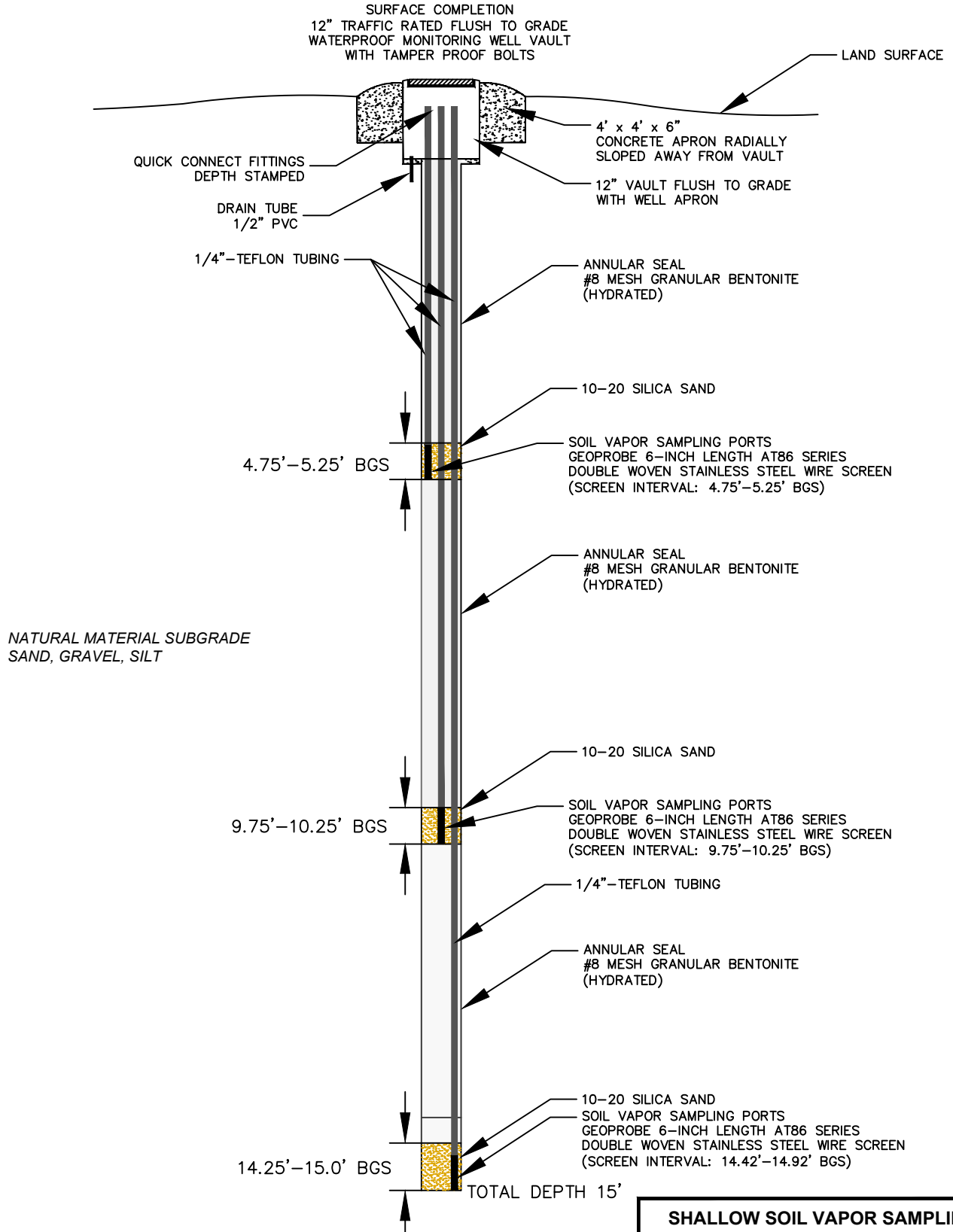
B-16



NOT TO SCALE

B-17

SHALLOW SOIL VAPOR SAMPLING KIRTLAND AIR FORCE BASE	
FIGURE B-15	
SHALLOW VAPOR MONITORING PROBE SVMW-22	
A:1202214599.22\MW-SVMW-22.DWG	REVISION DATE: 11/21/2022



NOT TO SCALE

B-18

SHALLOW SOIL VAPOR SAMPLING KIRTLAND AIR FORCE BASE	
FIGURE B-16	
SHALLOW VAPOR MONITORING PROBE SVMW-23	
A:1202214599.22\MW-SVMW-23.DWG	REVISION DATE: 11/21/2022



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

March 14, 2022

Danny Taylor
Hazair, Inc
1717 Louisiana Blvd, Suite 116
Albuquerque, NM 87110
TEL: (505) 301-1467
FAX:

RE: BFF

OrderNo.: 2202622

Dear Danny Taylor:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/11/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202622

Date Reported: 3/14/2022

CLIENT: Hazair, Inc

Client Sample ID: SVMP_SoilIDW

Project: BFF

Collection Date: 2/11/2022 12:45:00 PM

Lab ID: 2202622-001

Matrix: SOIL

Received Date: 2/11/2022 2:19:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6020A: METALS							Analyst: DBK
Arsenic	3.4	2.0		mg/Kg	20	3/4/2022 5:00:48 PM	65942
Lead	3.5	0.50		mg/Kg	5	3/4/2022 4:47:23 PM	65942
Selenium	ND	2.0		mg/Kg	20	3/4/2022 5:00:48 PM	65942
EPA METHOD 7471B: MERCURY							Analyst: VP
Mercury	ND	0.033		mg/Kg	1	3/7/2022 4:25:43 PM	65981
MERCURY, TCLP							Analyst: DBK
Mercury	ND	0.020		mg/L	1	2/17/2022 1:11:49 PM	65587
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Barium	250	0.20		mg/Kg	2	3/8/2022 6:05:50 PM	65942
Cadmium	ND	0.20		mg/Kg	2	3/8/2022 6:05:50 PM	65942
Chromium	4.2	0.60		mg/Kg	2	3/8/2022 6:05:50 PM	65942
Silver	ND	1.0		mg/Kg	2	3/9/2022 6:55:50 PM	65942
EPA METHOD 6010B: TCLP METALS							Analyst: JLF
Arsenic	ND	5.0		mg/L	1	2/23/2022 7:54:17 PM	65671
Barium	ND	100		mg/L	1	2/22/2022 6:17:18 PM	65671
Cadmium	ND	1.0		mg/L	1	2/22/2022 6:17:18 PM	65671
Chromium	ND	5.0		mg/L	1	2/23/2022 7:54:17 PM	65671
Lead	ND	5.0		mg/L	1	2/22/2022 6:17:18 PM	65671
Selenium	ND	1.0		mg/L	1	2/23/2022 7:54:17 PM	65671
Silver	ND	5.0		mg/L	1	2/24/2022 2:52:48 PM	65671
EPA METHOD 8081: PESTICIDES TCLP							Analyst: LSB
Chlordane	ND	0.030		mg/L	1	2/25/2022 3:18:55 PM	65712
Endrin	ND	0.020		mg/L	1	2/25/2022 3:18:55 PM	65712
gamma-BHC (Lindane)	ND	0.40		mg/L	1	2/25/2022 3:18:55 PM	65712
Heptachlor	ND	0.0080		mg/L	1	2/25/2022 3:18:55 PM	65712
Heptachlor epoxide	ND	0.0080		mg/L	1	2/25/2022 3:18:55 PM	65712
Methoxychlor	ND	10		mg/L	1	2/25/2022 3:18:55 PM	65712
Toxaphene	ND	0.50		mg/L	1	2/25/2022 3:18:55 PM	65712
Surr: Decachlorobiphenyl	110	57.2-162		%Rec	1	2/25/2022 3:18:55 PM	65712
Surr: Tetrachloro-m-xylene	74.5	22.3-116		%Rec	1	2/25/2022 3:18:55 PM	65712
EPA METHOD 8151: HERBICIDES TCLP							Analyst: JME
2,4,5-TP (Silvex)	ND	1.0		mg/L	1	2/22/2022 2:08:39 PM	65589
2,4-D	ND	10		mg/L	1	2/22/2022 2:08:39 PM	65589
Surr: 2,4-Dichlorophenylacetic acid	104	70-130		%Rec	1	2/22/2022 2:08:39 PM	65589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	10	9.4		mg/Kg	1	2/18/2022 7:44:44 AM	65550

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202622

Date Reported: 3/14/2022

CLIENT: Hazair, Inc

Client Sample ID: SVMP_SoilIDW

Project: BFF

Collection Date: 2/11/2022 12:45:00 PM

Lab ID: 2202622-001

Matrix: SOIL

Received Date: 2/11/2022 2:19:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/18/2022 7:44:44 AM	65550
Surr: DNOP	140	51.1-141		%Rec	1	2/18/2022 7:44:44 AM	65550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2022 4:09:11 AM	65533
Surr: BFB	119	70-130		%Rec	1	2/16/2022 4:09:11 AM	65533
EPA METHOD 8270C TCLP							Analyst: JME
2-Methylphenol	ND	200		mg/L	1	2/22/2022 3:51:34 PM	65605
3+4-Methylphenol	ND	200		mg/L	1	2/22/2022 3:51:34 PM	65605
2,4-Dinitrotoluene	ND	0.13		mg/L	1	2/22/2022 3:51:34 PM	65605
Hexachlorobenzene	ND	0.13		mg/L	1	2/22/2022 3:51:34 PM	65605
Hexachlorobutadiene	ND	0.50		mg/L	1	2/22/2022 3:51:34 PM	65605
Hexachloroethane	ND	3.0		mg/L	1	2/22/2022 3:51:34 PM	65605
Nitrobenzene	ND	2.0		mg/L	1	2/22/2022 3:51:34 PM	65605
Pentachlorophenol	ND	100		mg/L	1	2/22/2022 3:51:34 PM	65605
Pyridine	ND	5.0		mg/L	1	2/22/2022 3:51:34 PM	65605
2,4,5-Trichlorophenol	ND	400		mg/L	1	2/22/2022 3:51:34 PM	65605
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	2/22/2022 3:51:34 PM	65605
Cresols, Total	ND	200		mg/L	1	2/22/2022 3:51:34 PM	65605
Surr: 2-Fluorophenol	49.6	25.3-76.7		%Rec	1	2/22/2022 3:51:34 PM	65605
Surr: Phenol-d5	36.6	17.2-63.1		%Rec	1	2/22/2022 3:51:34 PM	65605
Surr: 2,4,6-Tribromophenol	69.2	24-105		%Rec	1	2/22/2022 3:51:34 PM	65605
Surr: Nitrobenzene-d5	55.4	34.1-92.2		%Rec	1	2/22/2022 3:51:34 PM	65605
Surr: 2-Fluorobiphenyl	56.8	31.4-91.8		%Rec	1	2/22/2022 3:51:34 PM	65605
Surr: 4-Terphenyl-d14	98.6	32.4-108		%Rec	1	2/22/2022 3:51:34 PM	65605
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: JR
Benzene	ND	0.50		ppm	10	2/16/2022 11:35:45 PM	65533
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	2/16/2022 11:35:45 PM	65533
2-Butanone	ND	200		ppm	10	2/16/2022 11:35:45 PM	65533
Carbon tetrachloride	ND	0.50		ppm	10	2/16/2022 11:35:45 PM	65533
Chlorobenzene	ND	100		ppm	10	2/16/2022 11:35:45 PM	65533
Chloroform	ND	6.0		ppm	10	2/16/2022 11:35:45 PM	65533
1,4-Dichlorobenzene	ND	7.5		ppm	10	2/16/2022 11:35:45 PM	65533
1,1-Dichloroethene	ND	0.70		ppm	10	2/16/2022 11:35:45 PM	65533
Tetrachloroethene (PCE)	ND	0.70		ppm	10	2/16/2022 11:35:45 PM	65533
Trichloroethene (TCE)	ND	0.50		ppm	10	2/16/2022 11:35:45 PM	65533
Vinyl chloride	ND	0.20		ppm	10	2/16/2022 11:35:45 PM	65533
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	10	2/16/2022 11:35:45 PM	65533
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	10	2/16/2022 11:35:45 PM	65533

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202622

Date Reported: 3/14/2022

CLIENT: Hazair, Inc

Client Sample ID: SVMP_SoilIDW

Project: BFF

Collection Date: 2/11/2022 12:45:00 PM

Lab ID: 2202622-001

Matrix: SOIL

Received Date: 2/11/2022 2:19:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: JR
Surr: Dibromofluoromethane	112	70-130	%Rec	10	2/16/2022 11:35:45 PM	65533	
Surr: Toluene-d8	105	70-130	%Rec	10	2/16/2022 11:35:45 PM	65533	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: MB-65942	SampType: MBLK	TestCode: EPA Method 6020A: Metals								
Client ID: PBS	Batch ID: 65942	RunNo: 86256								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3040939	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.20								
Selenium	ND	0.20								

Sample ID: MSLCSLL-65942	SampType: LCSLL	TestCode: EPA Method 6020A: Metals								
Client ID: BatchQC	Batch ID: 65942	RunNo: 86256								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3040940	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.20	0.1000	0	82.2	70	130			
Selenium	ND	0.20	0.1000	0	109	70	130			

Sample ID: MSLCS-65942	SampType: LCS	TestCode: EPA Method 6020A: Metals								
Client ID: LCSS	Batch ID: 65942	RunNo: 86256								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3040941	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	4.8	0.20	5.000	0	95.2	80	120			
Selenium	4.4	0.20	5.000	0	87.8	80	120			

Sample ID: MB-65942	SampType: MBLK	TestCode: EPA Method 6020A: Metals								
Client ID: PBS	Batch ID: 65942	RunNo: 86256								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3041014	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.20								

Sample ID: MSLCSLL-65942	SampType: LCSLL	TestCode: EPA Method 6020A: Metals								
Client ID: BatchQC	Batch ID: 65942	RunNo: 86256								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3041015	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.20	0.1000	0	88.5	70	130			

Sample ID: MSLCS-65942	SampType: LCS	TestCode: EPA Method 6020A: Metals								
Client ID: LCSS	Batch ID: 65942	RunNo: 86256								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3041017	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	4.8	0.20	5.000	0	96.5	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: LCS-65550	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 65550		RunNo: 85892							
Prep Date: 2/15/2022	Analysis Date: 2/16/2022		SeqNo: 3024741		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	123	68.9	135			
Surr: DNOP	6.1		5.000		122	51.1	141			

Sample ID: MB-65550	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 65550		RunNo: 85892							
Prep Date: 2/15/2022	Analysis Date: 2/16/2022		SeqNo: 3024746		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		129	51.1	141			

Sample ID: 2202622-001AMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: SVMP_SoilIDW	Batch ID: 65550		RunNo: 85916							
Prep Date: 2/15/2022	Analysis Date: 2/18/2022		SeqNo: 3025418		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.5	47.26	10.36	89.7	39.3	155			
Surr: DNOP	5.5		4.726		115	51.1	141			

Sample ID: 2202622-001AMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: SVMP_SoilIDW	Batch ID: 65550		RunNo: 85916							
Prep Date: 2/15/2022	Analysis Date: 2/18/2022		SeqNo: 3025419		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.4	47.04	10.36	89.5	39.3	155	0.545	23.4	
Surr: DNOP	5.6		4.704		119	51.1	141	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: mb-65533	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 65533		RunNo: 85848							
Prep Date: 2/14/2022	Analysis Date: 2/16/2022		SeqNo: 3022921	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1200		1000		123	70	130			

Sample ID: lcs-65533	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 65533		RunNo: 85848							
Prep Date: 2/14/2022	Analysis Date: 2/15/2022		SeqNo: 3022922	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	78.6	131			
Surr: BFB	1300		1000		134	70	130			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65591	SampType: MBLK	TestCode: EPA Method 8081: Pesticides TCLP								
Client ID: PBW	Batch ID: 65591	RunNo: 85978								
Prep Date: 2/16/2022	Analysis Date: 2/21/2022	SeqNo: 3028716	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.0026		0.002500		102	57.2	162			
Surr: Tetrachloro-m-xylene	0.0017		0.002500		68.5	22.3	116			

Sample ID: MB-65591	SampType: MBLK	TestCode: EPA Method 8081: Pesticides TCLP								
Client ID: PBW	Batch ID: 65591	RunNo: 85978								
Prep Date: 2/16/2022	Analysis Date: 2/21/2022	SeqNo: 3028718	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.0027		0.002500		107	57.2	162			
Surr: Tetrachloro-m-xylene	0.0017		0.002500		67.8	22.3	116			

Sample ID: MB-65712	SampType: MBLK	TestCode: EPA Method 8081: Pesticides TCLP								
Client ID: PBW	Batch ID: 65712	RunNo: 86124								
Prep Date: 2/22/2022	Analysis Date: 2/25/2022	SeqNo: 3034708	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlordane	ND	0.030								
Endrin	ND	0.020								
gamma-BHC (Lindane)	ND	0.40								
Heptachlor	ND	0.0080								
Heptachlor epoxide	ND	0.0080								
Methoxychlor	ND	10								
Toxaphene	ND	0.50								
Surr: Decachlorobiphenyl	0.0032		0.002500		128	57.2	162			
Surr: Tetrachloro-m-xylene	0.0019		0.002500		76.4	22.3	116			

Sample ID: MB-65712	SampType: MBLK	TestCode: EPA Method 8081: Pesticides TCLP								
Client ID: PBW	Batch ID: 65712	RunNo: 86124								
Prep Date: 2/22/2022	Analysis Date: 2/25/2022	SeqNo: 3034709	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlordane	ND	0.030								
Endrin	ND	0.020								
gamma-BHC (Lindane)	ND	0.40								
Heptachlor	ND	0.0080								
Heptachlor epoxide	ND	0.0080								
Methoxychlor	ND	10								
Toxaphene	ND	0.50								
Surr: Decachlorobiphenyl	0.0031		0.002500		125	57.2	162			
Surr: Tetrachloro-m-xylene	0.0019		0.002500		74.5	22.3	116			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: LCS-65712	SampType: LCS		TestCode: EPA Method 8081: Pesticides TCLP							
Client ID: LCSW	Batch ID: 65712		RunNo: 86124							
Prep Date: 2/22/2022	Analysis Date: 2/25/2022		SeqNo: 3034715				Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin	0.00056	0.00010	0.0005000	0	111	53.7	129			
gamma-BHC (Lindane)	0.00042	0.00010	0.0005000	0	83.3	32.6	120			
Heptachlor	0.00032	0.00010	0.0005000	0	64.4	31.8	112			
Heptachlor epoxide	0.00049	0.00010	0.0005000	0	98.0	50.4	120			
Methoxychlor	0.00059	0.00010	0.0005000	0	118	51.7	139			
Surr: Decachlorobiphenyl	0.0031		0.002500		123	57.2	162			
Surr: Tetrachloro-m-xylene	0.0016		0.002500		65.2	22.3	116			

Sample ID: LCS-65712	SampType: LCS		TestCode: EPA Method 8081: Pesticides TCLP							
Client ID: LCSW	Batch ID: 65712		RunNo: 86124							
Prep Date: 2/22/2022	Analysis Date: 2/25/2022		SeqNo: 3034716				Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin	0.00054	0.00010	0.0005000	0	108	53.7	129			
gamma-BHC (Lindane)	0.00043	0.00010	0.0005000	0	85.6	32.6	120			
Heptachlor	0.00031	0.00010	0.0005000	0	62.8	31.8	112			
Heptachlor epoxide	0.00048	0.00010	0.0005000	0	95.3	50.4	120			
Methoxychlor	0.00058	0.00010	0.0005000	0	116	51.7	139			
Surr: Decachlorobiphenyl	0.0031		0.002500		122	57.2	162			
Surr: Tetrachloro-m-xylene	0.0016		0.002500		64.3	22.3	116			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: 0.05 PPM	SampType: LCS	TestCode: EPA Method 8151: Herbicides TCLP								
Client ID: LCSW	Batch ID: 65589	RunNo: 85972								
Prep Date: 2/17/2022	Analysis Date: 2/22/2022	SeqNo: 3030008	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	0.050	0.00010	0.05000	0	99.4	70	130			
2,4-D	0.051	0.00010	0.05000	0	102	70	130			
Surr: 2,4-Dichlorophenylacetic aci	0.050		0.05000		99.9	70	130			

Sample ID: MB-65589	SampType: MBLK	TestCode: EPA Method 8151: Herbicides TCLP								
Client ID: PBW	Batch ID: 65589	RunNo: 85972								
Prep Date: 2/17/2022	Analysis Date: 2/22/2022	SeqNo: 3030009	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	ND	1.0								
2,4-D	ND	10								
Surr: 2,4-Dichlorophenylacetic aci	0.050		0.05000		99.2	70	130			

Sample ID: MB-65589	SampType: MBLK	TestCode: EPA Method 8151: Herbicides TCLP								
Client ID: PBW	Batch ID: 65589	RunNo: 85972								
Prep Date: 2/17/2022	Analysis Date: 2/22/2022	SeqNo: 3030010	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	ND	1.0								
2,4-D	ND	10								
Surr: 2,4-Dichlorophenylacetic aci	0.048		0.05000		96.8	70	130			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: Ics-65533	SampType: LCS		TestCode: EPA Method 8260B: TCLP Compounds							
Client ID: LCSS	Batch ID: 65533		RunNo: 85889							
Prep Date: 2/14/2022	Analysis Date: 2/16/2022		SeqNo: 3024504		Units: ppm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.0	70	130			
Chlorobenzene	0.98	0.50	1.000	0	98.1	70	130			
1,1-Dichloroethene	0.76	0.070	1.000	0	76.5	70	130			
Trichloroethene (TCE)	0.91	0.050	1.000	0	91.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID: mb-65533	SampType: MBLK		TestCode: EPA Method 8260B: TCLP Compounds							
Client ID: PBS	Batch ID: 65533		RunNo: 85889							
Prep Date: 2/14/2022	Analysis Date: 2/16/2022		SeqNo: 3024505		Units: ppm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.54		0.5000		108	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: MB-65605	SampType: MBLK		TestCode: EPA Method 8270C TCLP							
Client ID: PBS	Batch ID: 65605		RunNo: 85986							
Prep Date: 2/17/2022	Analysis Date: 2/22/2022		SeqNo: 3030061		Units: mg/L					
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.10		0.2000		51.2	25.3	76.7			
Surr: Phenol-d5	0.080		0.2000		39.9	17.2	63.1			
Surr: 2,4,6-Tribromophenol	0.15		0.2000		77.1	24	105			
Surr: Nitrobenzene-d5	0.055		0.1000		54.9	34.1	92.2			
Surr: 2-Fluorobiphenyl	0.052		0.1000		52.0	31.4	91.8			
Surr: 4-Terphenyl-d14	0.10		0.1000		101	32.4	108			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: LCS-65605	SampType: LCS		TestCode: EPA Method 8270C TCLP							
Client ID: LCSS	Batch ID: 65605		RunNo: 85986							
Prep Date: 2/17/2022	Analysis Date: 2/22/2022		SeqNo: 3030062		Units: mg/L					
2-Methylphenol	0.048	0.00010	0.1000	0	48.3	17.1	95.2			
3+4-Methylphenol	0.098	0.00010	0.2000	0	49.1	15	102			
2,4-Dinitrotoluene	0.042	0.00010	0.1000	0	41.6	15	85.7			
Hexachlorobenzene	0.055	0.00010	0.1000	0	55.4	48.1	102			
Hexachlorobutadiene	0.038	0.00010	0.1000	0	38.3	16.7	90.8			
Hexachloroethane	0.043	0.00010	0.1000	0	42.6	16.8	83.3			
Nitrobenzene	0.051	0.00010	0.1000	0	51.2	21.8	104			
Pentachlorophenol	0.059	0.00010	0.1000	0	59.3	26.7	104			
Pyridine	0.024	0.00010	0.1000	0	24.4	15	75.5			
2,4,5-Trichlorophenol	0.059	0.00010	0.1000	0	58.6	17.4	113			
2,4,6-Trichlorophenol	0.052	0.00010	0.1000	0	52.2	20	109			
Cresols, Total	0.15	0.00010	0.3000	0	48.8	5.83	117			
Surr: 2-Fluorophenol	0.091		0.2000		45.4	25.3	76.7			
Surr: Phenol-d5	0.067		0.2000		33.7	17.2	63.1			
Surr: 2,4,6-Tribromophenol	0.14		0.2000		72.4	24	105			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: LCS-65605	SampType: LCS	TestCode: EPA Method 8270C TCLP								
Client ID: LCSS	Batch ID: 65605	RunNo: 85986								
Prep Date: 2/17/2022	Analysis Date: 2/22/2022	SeqNo: 3030062 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	0.056		0.1000		56.1	34.1	92.2			
Surr: 2-Fluorobiphenyl	0.056		0.1000		56.3	31.4	91.8			
Surr: 4-Terphenyl-d14	0.098		0.1000		97.7	32.4	108			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Page 12 of 18

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: MB-65981	SampType: MBLK	TestCode: EPA Method 7471B: Mercury								
Client ID: PBS	Batch ID: 65981	RunNo: 86288								
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3042338	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID: LCS-65981	SampType: LCS	TestCode: EPA Method 7471B: Mercury								
Client ID: LCSS	Batch ID: 65981	RunNo: 86288								
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3042339	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.15	0.033	0.1667	0	91.5	80	120			

Sample ID: LCSLL-65981	SampType: LCSLL	TestCode: EPA Method 7471B: Mercury								
Client ID: BatchQC	Batch ID: 65981	RunNo: 86288								
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3042340	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	105	70	130			

Sample ID: LCSLL-65981	SampType: LCSLL	TestCode: EPA Method 7471B: Mercury								
Client ID: BatchQC	Batch ID: 65981	RunNo: 86288								
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3042341	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	94.8	70	130			

Sample ID: LCSLL-65981	SampType: LCSLL	TestCode: EPA Method 7471B: Mercury								
Client ID: BatchQC	Batch ID: 65981	RunNo: 86288								
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3042342	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	96.1	70	130			

Sample ID: LCSLL-65981	SampType: LCSLL	TestCode: EPA Method 7471B: Mercury								
Client ID: BatchQC	Batch ID: 65981	RunNo: 86288								
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3042343	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	93.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: LCSLL-65981	SampType: LCSLL		TestCode: EPA Method 7471B: Mercury							
Client ID: BatchQC	Batch ID: 65981		RunNo: 86288							
Prep Date: 3/7/2022	Analysis Date: 3/7/2022		SeqNo: 3042344	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	95.4	70	130			

Sample ID: LCSLL-65981	SampType: LCSLL		TestCode: EPA Method 7471B: Mercury							
Client ID: BatchQC	Batch ID: 65981		RunNo: 86288							
Prep Date: 3/7/2022	Analysis Date: 3/7/2022		SeqNo: 3042345	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	95.8	70	130			

Sample ID: LCSLL-65981	SampType: LCSLL		TestCode: EPA Method 7471B: Mercury							
Client ID: BatchQC	Batch ID: 65981		RunNo: 86288							
Prep Date: 3/7/2022	Analysis Date: 3/7/2022		SeqNo: 3042346	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	96.6	70	130			

Sample ID: LCSLL-65981	SampType: LCSLL		TestCode: EPA Method 7471B: Mercury							
Client ID: BatchQC	Batch ID: 65981		RunNo: 86288							
Prep Date: 3/7/2022	Analysis Date: 3/7/2022		SeqNo: 3042347	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	98.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65587	SampType: MBLK	TestCode: MERCURY, TCLP								
Client ID: PBW	Batch ID: 65587	RunNo: 85903								
Prep Date: 2/16/2022	Analysis Date: 2/17/2022	SeqNo: 3025098	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID: LLLCS-65587	SampType: LCSLL	TestCode: MERCURY, TCLP								
Client ID: BatchQC	Batch ID: 65587	RunNo: 85903								
Prep Date: 2/16/2022	Analysis Date: 2/17/2022	SeqNo: 3025099	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.0001500	0	126	50	150			

Sample ID: LLLCS2-65587	SampType: LCSLL	TestCode: MERCURY, TCLP								
Client ID: BatchQC	Batch ID: 65587	RunNo: 85903								
Prep Date: 2/16/2022	Analysis Date: 2/17/2022	SeqNo: 3025100	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.0001500	0	125	50	150			

Sample ID: LLLCS3-65587	SampType: LCSLL	TestCode: MERCURY, TCLP								
Client ID: BatchQC	Batch ID: 65587	RunNo: 85903								
Prep Date: 2/16/2022	Analysis Date: 2/17/2022	SeqNo: 3025101	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.0001500	0	126	50	150			

Sample ID: LCS-65587	SampType: LCS	TestCode: MERCURY, TCLP								
Client ID: LCSW	Batch ID: 65587	RunNo: 85903								
Prep Date: 2/16/2022	Analysis Date: 2/17/2022	SeqNo: 3025102	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	94.2	80	120			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65942	SampType: MBLK	TestCode: EPA Method 6010B: Soil Metals								
Client ID: PBS	Batch ID: 65942	RunNo: 86344								
Prep Date: 3/3/2022	Analysis Date: 3/8/2022	SeqNo: 3045232	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								

Sample ID: LCS-65942	SampType: LCS	TestCode: EPA Method 6010B: Soil Metals								
Client ID: LCSS	Batch ID: 65942	RunNo: 86344								
Prep Date: 3/3/2022	Analysis Date: 3/8/2022	SeqNo: 3045234	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	23	0.10	25.00	0	92.3	80	120			
Cadmium	24	0.10	25.00	0	94.3	80	120			
Chromium	23	0.30	25.00	0	91.3	80	120			

Sample ID: MB-65942	SampType: MBLK	TestCode: EPA Method 6010B: Soil Metals								
Client ID: PBS	Batch ID: 65942	RunNo: 86344								
Prep Date: 3/3/2022	Analysis Date: 3/8/2022	SeqNo: 3045353	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.50								

Sample ID: LCS-65942	SampType: LCS	TestCode: EPA Method 6010B: Soil Metals								
Client ID: LCSS	Batch ID: 65942	RunNo: 86344								
Prep Date: 3/3/2022	Analysis Date: 3/8/2022	SeqNo: 3045355	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.8	0.50	5.000	0	96.1	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65671	SampType: MBLK	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: PBW	Batch ID: 65671	RunNo: 86018								
Prep Date: 2/21/2022	Analysis Date: 2/22/2022	SeqNo: 3031019	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100								
Cadmium	ND	1.0								
Lead	ND	5.0								

Sample ID: LCS-65671	SampType: LCS	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: LCSW	Batch ID: 65671	RunNo: 86018								
Prep Date: 2/21/2022	Analysis Date: 2/22/2022	SeqNo: 3031021	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	0	96.6	80	120			
Cadmium	ND	1.0	0.5000	0	98.4	80	120			
Lead	ND	5.0	0.5000	0	95.4	80	120			

Sample ID: MB-65671	SampType: MBLK	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: PBW	Batch ID: 65671	RunNo: 86061								
Prep Date: 2/21/2022	Analysis Date: 2/23/2022	SeqNo: 3032252	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Chromium	ND	5.0								
Selenium	ND	1.0								

Sample ID: LCS-65671	SampType: LCS	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: LCSW	Batch ID: 65671	RunNo: 86061								
Prep Date: 2/21/2022	Analysis Date: 2/23/2022	SeqNo: 3032254	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	108	80	120			
Chromium	ND	5.0	0.5000	0	98.3	80	120			
Selenium	ND	1.0	0.5000	0	114	80	120			

Sample ID: MB-65671	SampType: MBLK	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: PBW	Batch ID: 65671	RunNo: 86068								
Prep Date: 2/21/2022	Analysis Date: 2/24/2022	SeqNo: 3032637	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	5.0								

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202622

14-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: LCSLL-65671	SampType: LCS	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: LCSW	Batch ID: 65671	RunNo: 86068								
Prep Date: 2/21/2022	Analysis Date: 2/24/2022	SeqNo: 3032638	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	5.0	0.1000	0	5.52	80	120			S

Sample ID: LCS-65671	SampType: LCS	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: LCSW	Batch ID: 65671	RunNo: 86068								
Prep Date: 2/21/2022	Analysis Date: 2/24/2022	SeqNo: 3032639	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	5.0	0.1000	0	112	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Client Name: Hazair, Inc

Work Order Number: 2202622

RcptNo: 1

Received By: **Kasandra Payan** 2/11/2022 2:19:00 PM *KP*

Completed By: **Tracy Casarrubias** 2/11/2022 2:41:01 PM

Reviewed By: *J 2-11-22*

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Samples were collected the same day and chilled. Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH:
 (<2 or >12 unless noted)

Adjusted?

Checked by: *J 2/11/22*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.2	Good	Not Present			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

March 11, 2022

Danny Taylor
Hazair, Inc
1717 Louisiana Blvd, Suite 116
Albuquerque, NM 87110
TEL: (505) 301-1467
FAX

RE: BFF

OrderNo.: 2202637

Dear Danny Taylor:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/11/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202637

Date Reported: 3/11/2022

CLIENT: Hazair, Inc

Client Sample ID: SVMP_Water IDW

Project: BFF

Collection Date: 2/11/2022 2:44:00 PM

Lab ID: 2202637-001

Matrix: AQUEOUS

Received Date: 2/11/2022 4:31:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8081: PESTICIDES TCLP							Analyst: LSB
Chlordane	ND	0.030		mg/L	1	2/21/2022 3:34:23 PM	65643
Endrin	ND	0.020		mg/L	1	2/21/2022 3:34:23 PM	65643
gamma-BHC (Lindane)	ND	0.40		mg/L	1	2/21/2022 3:34:23 PM	65643
Heptachlor	ND	0.0080		mg/L	1	2/21/2022 3:34:23 PM	65643
Heptachlor epoxide	ND	0.0080		mg/L	1	2/21/2022 3:34:23 PM	65643
Methoxychlor	ND	10		mg/L	1	2/21/2022 3:34:23 PM	65643
Toxaphene	ND	0.50		mg/L	1	2/21/2022 3:34:23 PM	65643
Surr: Decachlorobiphenyl	9.13	73-119	S	%Rec	1	2/21/2022 3:34:23 PM	65643
Surr: Tetrachloro-m-xylene	24.1	36.6-84.1	S	%Rec	1	2/21/2022 3:34:23 PM	65643
EPA METHOD 8270C TCLP							Analyst: JME
2-Methylphenol	ND	200		mg/L	1	2/22/2022 4:33:31 PM	65605
3+4-Methylphenol	ND	200		mg/L	1	2/22/2022 4:33:31 PM	65605
2,4-Dinitrotoluene	ND	0.13		mg/L	1	2/22/2022 4:33:31 PM	65605
Hexachlorobenzene	ND	0.13		mg/L	1	2/22/2022 4:33:31 PM	65605
Hexachlorobutadiene	ND	0.50		mg/L	1	2/22/2022 4:33:31 PM	65605
Hexachloroethane	ND	3.0		mg/L	1	2/22/2022 4:33:31 PM	65605
Nitrobenzene	ND	2.0		mg/L	1	2/22/2022 4:33:31 PM	65605
Pentachlorophenol	ND	100		mg/L	1	2/22/2022 4:33:31 PM	65605
Pyridine	ND	5.0		mg/L	1	2/22/2022 4:33:31 PM	65605
2,4,5-Trichlorophenol	ND	400		mg/L	1	2/22/2022 4:33:31 PM	65605
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	2/22/2022 4:33:31 PM	65605
Cresols, Total	ND	200		mg/L	1	2/22/2022 4:33:31 PM	65605
Surr: 2-Fluorophenol	31.8	15-118		%Rec	1	2/22/2022 4:33:31 PM	65605
Surr: Phenol-d5	25.1	15-92.9		%Rec	1	2/22/2022 4:33:31 PM	65605
Surr: 2,4,6-Tribromophenol	85.4	15-150		%Rec	1	2/22/2022 4:33:31 PM	65605
Surr: Nitrobenzene-d5	36.7	15-136		%Rec	1	2/22/2022 4:33:31 PM	65605
Surr: 2-Fluorobiphenyl	38.4	15-134		%Rec	1	2/22/2022 4:33:31 PM	65605
Surr: 4-Terphenyl-d14	93.9	15-168		%Rec	1	2/22/2022 4:33:31 PM	65605
EPA METHOD 6020A: TOTAL METALS							Analyst: DBK
Arsenic	ND	0.0050		mg/L	5	2/24/2022 4:04:11 PM	65764
Lead	0.0082	0.0050		mg/L	5	2/25/2022 10:50:46 AM	65764
Selenium	ND	0.0050		mg/L	5	2/24/2022 4:04:11 PM	65764
EPA METHOD 7470A: MERCURY							Analyst: VP
Mercury	ND	0.00020		mg/L	1	2/15/2022 9:15:42 AM	65535
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: JLF
Barium	0.20	0.0020		mg/L	1	2/25/2022 5:46:46 PM	65764
Cadmium	ND	0.0020		mg/L	1	2/25/2022 5:46:46 PM	65764

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202637

Date Reported: 3/11/2022

CLIENT: Hazair, Inc

Client Sample ID: SVMP_Water IDW

Project: BFF

Collection Date: 2/11/2022 2:44:00 PM

Lab ID: 2202637-001

Matrix: AQUEOUS

Received Date: 2/11/2022 4:31:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: JLF
Chromium	0.065	0.0060		mg/L	1	2/25/2022 5:46:46 PM	65764
Silver	ND	0.0050		mg/L	1	2/25/2022 5:46:46 PM	65764
EPA METHOD 8015D: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	0.25	D	mg/L	5	2/17/2022 2:21:44 PM	C85899
Surr: 4-Bromofluorobenzene	95.8	70-130	D	%Rec	5	2/17/2022 2:21:44 PM	C85899
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: SB
Diesel Range Organics (DRO)	12	1.0		mg/L	1	2/23/2022 8:48:24 AM	65634
Motor Oil Range Organics (MRO)	15	5.0		mg/L	1	2/23/2022 8:48:24 AM	65634
Surr: DNOP	126	64.8-167		%Rec	1	2/23/2022 8:48:24 AM	65634
TCLP VOLATILES BY 8260B							Analyst: BRM
Benzene	ND	0.50		mg/L	200	2/17/2022 1:54:46 PM	B85899
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	200	2/17/2022 1:54:46 PM	B85899
2-Butanone	ND	200		mg/L	200	2/17/2022 1:54:46 PM	B85899
Carbon Tetrachloride	ND	0.50		mg/L	200	2/17/2022 1:54:46 PM	B85899
Chloroform	ND	6.0		mg/L	200	2/17/2022 1:54:46 PM	B85899
1,4-Dichlorobenzene	ND	7.5		mg/L	200	2/17/2022 1:54:46 PM	B85899
1,1-Dichloroethene	ND	0.70		mg/L	200	2/17/2022 1:54:46 PM	B85899
Tetrachloroethene (PCE)	ND	0.70		mg/L	200	2/17/2022 1:54:46 PM	B85899
Trichloroethene (TCE)	ND	0.50		mg/L	200	2/17/2022 1:54:46 PM	B85899
Vinyl chloride	ND	0.20		mg/L	200	2/17/2022 1:54:46 PM	B85899
Chlorobenzene	ND	100		mg/L	200	2/17/2022 1:54:46 PM	B85899
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	200	2/17/2022 1:54:46 PM	B85899
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	200	2/17/2022 1:54:46 PM	B85899
Surr: Dibromofluoromethane	103	70-130		%Rec	200	2/17/2022 1:54:46 PM	B85899
Surr: Toluene-d8	101	70-130		%Rec	200	2/17/2022 1:54:46 PM	B85899

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

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Client: Hall Environmental Analysis Lab
Address: 4901 Hawkins NE Suite D
Albuquerque, NM 87109
Attn: Andy Freeman

Work Order: MCB0573
Project: 2202637
Reported: 3/10/2022 12:06

Analytical Results Report

Sample Location: 2202637-001E (SVMP_Water IDW)
Lab/Sample Number: MCB0573-01 **Collect Date:** 02/11/22 14:44
Date Received: 02/17/22 11:43 **Collected By:**
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Semivolatiles							
2,4,5-T	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
2,4,5-TP (Silvex)	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
2,4-D	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
2,4-DB	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
3,5-Dichlorobenzoic Acid	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Acifluorfen	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Bentazon	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Chloramben	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Dalapon	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
DCPA (Acid Metabolites)	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Dicamba	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Dichlorprop	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Dinoseb	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Pentachlorophenol	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
Picloram	ND	ug/L	0.100	2/23/22 16:58	SAT	EPA 8151A	
<hr/>							
Surrogate: DCINA	99.5%		70-130	2/23/22 17:31	SAT	EPA 8151A	

Authorized Signature,



Justin Doty For Todd Taruscio, Laboratory Manager

PQL Practical Quantitation Limit
ND Not Detected
MCL EPA's Maximum Contaminant Level
Dry Sample results reported on a dry weight basis
* Not a state-certified analyte

This report shall not be reproduced except in full, without the written approval of the laboratory
The results reported related only to the samples indicated.

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Quality Control Data

Semivolatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BCB0493 - Herbicides										
Blank (BCB0493-BLK1)										
					Prepared: 2/18/2022 Analyzed: 2/23/2022					
2,4,5-T	ND		0.100	ug/L						
2,4,5-TP (Silvex)	ND		0.100	ug/L						
2,4-D	ND		0.100	ug/L						
2,4-DB	ND		0.100	ug/L						
Chloramben	ND		0.100	ug/L						
DCPA (Acid Metabolites)	ND		0.100	ug/L						
Dalapon	ND		0.100	ug/L						
Dicamba	ND		0.100	ug/L						
Dichlorprop	ND		0.100	ug/L						
Dinoseb	ND		0.100	ug/L						
Pentachlorophenol	ND		0.100	ug/L						
Picloram	ND		0.100	ug/L						
3,5-Dichlorobenzoic Acid	ND		0.100	ug/L						
Bentazon	ND		0.100	ug/L						
Acifluorfen	ND		0.100	ug/L						
<i>Surrogate: DCINA</i>			<i>18.2</i>	<i>ug/L</i>	<i>21.0</i>		<i>86.8</i>	<i>70-130</i>		
LCS (BCB0493-BS1)										
					Prepared: 2/18/2022 Analyzed: 2/23/2022					
2,4,5-T	12.0		0.100	ug/L	12.5		95.7	75-118		
2,4,5-TP (Silvex)	11.9		0.100	ug/L	12.5		95.5	64-139		
2,4-D	48.2		0.100	ug/L	50.0		96.4	63-127		
2,4-DB	38.8		0.100	ug/L	50.0		77.6	58-127		
Chloramben	17.0		0.100	ug/L	25.0		68.1	65-121		
DCPA (Acid Metabolites)	22.1		0.100	ug/L	25.0		88.2	73-114		
Dalapon	47.5		0.100	ug/L	50.0		94.9	82-122		
Dicamba	22.7		0.100	ug/L	25.0		90.8	72-121		
Dichlorprop	40.4		0.100	ug/L	50.0		80.8	64-117		
Dinoseb	42.0		0.100	ug/L	50.0		84.0	74-106		
Pentachlorophenol	4.24		0.100	ug/L	5.00		84.7	30-150		
Picloram	51.1		0.100	ug/L	50.0		102	54-149		
3,5-Dichlorobenzoic Acid	21.7		0.100	ug/L	25.0		87.0	48-134		
Bentazon	43.6		0.100	ug/L	50.0		87.1	75-114		
Acifluorfen	22.0		0.100	ug/L	25.0		88.1	70-124		
<i>Surrogate: DCINA</i>			<i>20.6</i>	<i>ug/L</i>	<i>21.0</i>		<i>98.3</i>	<i>70-130</i>		

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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BCB0493 - Herbicides (Continued)										
LCS Dup (BCB0493-BSD1)										
					Prepared: 2/18/2022 Analyzed: 2/23/2022					
2,4,5-T	11.6		0.100	ug/L	12.5		93.2	75-118	2.69	25
2,4,5-TP (Silvex)	11.1		0.100	ug/L	12.5		89.1	64-139	6.90	25
2,4-D	46.7		0.100	ug/L	50.0		93.4	63-127	3.13	25
2,4-DB	36.0		0.100	ug/L	50.0		72.0	58-127	7.52	25
Chloramben	16.6		0.100	ug/L	25.0		66.4	65-121	2.55	25
DCPA (Acid Metabolites)	21.2		0.100	ug/L	25.0		84.8	73-114	3.91	25
Dalapon	47.5		0.100	ug/L	50.0		94.9	82-122	0.0190	25
Dicamba	22.1		0.100	ug/L	25.0		88.5	72-121	2.46	25
Dichlorprop	39.8		0.100	ug/L	50.0		79.7	64-117	1.48	25
Dinoseb	40.8		0.100	ug/L	50.0		81.6	74-106	2.89	25
Pentachlorophenol	4.11		0.100	ug/L	5.00		82.3	30-150	2.95	25
Picloram	46.0		0.100	ug/L	50.0		92.0	54-149	10.4	25
3,5-Dichlorobenzoic Acid	21.0		0.100	ug/L	25.0		83.9	48-134	3.58	25
Bentazon	41.9		0.100	ug/L	50.0		83.9	75-114	3.79	25
Acifluorfen	20.3		0.100	ug/L	25.0		81.3	70-124	8.04	25
<i>Surrogate: DCINA</i>			<i>20.7</i>	<i>ug/L</i>	<i>21.0</i>		<i>98.6</i>	<i>70-130</i>		

Matrix Spike (BCB0493-MS1)

Source: MCB0573-01

Prepared: 2/18/2022 Analyzed: 2/23/2022

2,4,5-T	13.4		0.100	ug/L	12.5	ND	107	83-120		
2,4,5-TP (Silvex)	13.0		0.100	ug/L	12.5	ND	104	78-136		
2,4-D	54.8		0.100	ug/L	50.0	ND	110	68-128		
2,4-DB	49.0		0.100	ug/L	50.0	ND	98.1	53-140		
Chloramben	16.6		0.100	ug/L	25.0	ND	66.3	50-150		
DCPA (Acid Metabolites)	27.5		0.100	ug/L	25.0	ND	110	72-127		
Dalapon	51.7		0.100	ug/L	50.0	ND	103	82-129		
Dicamba	24.5		0.100	ug/L	25.0	ND	98.2	73-125		
Dichlorprop	45.2		0.100	ug/L	50.0	ND	90.5	65-121		
Dinoseb	49.6		0.100	ug/L	50.0	ND	99.2	70-114		
Pentachlorophenol	4.79		0.100	ug/L	5.00	ND	95.7	70-120		
Picloram	52.3		0.100	ug/L	50.0	ND	105	63-146		
3,5-Dichlorobenzoic Acid	24.3		0.100	ug/L	25.0	ND	97.3	49-132		
Bentazon	52.6		0.100	ug/L	50.0	ND	105	71-127		
Acifluorfen	23.9		0.100	ug/L	25.0	ND	95.6	53-147		
<i>Surrogate: DCINA</i>			<i>25.4</i>	<i>ug/L</i>	<i>21.0</i>		<i>121</i>	<i>70-130</i>		

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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BCB0493 - Herbicides (Continued)										
Matrix Spike Dup (BCB0493-MSD1)			Source: MCB0573-01		Prepared: 2/18/2022 Analyzed: 2/23/2022					
2,4,5-T	13.0		0.100	ug/L	12.5	ND	104	83-120	3.06	25
2,4,5-TP (Silvex)	14.2		0.100	ug/L	12.5	ND	114	78-136	8.85	25
2,4-D	53.9		0.100	ug/L	50.0	ND	108	68-128	1.51	25
2,4-DB	45.5		0.100	ug/L	50.0	ND	90.9	53-140	7.55	25
Chloramben	18.1		0.100	ug/L	25.0	ND	72.2	50-150	8.59	25
DCPA (Acid Metabolites)	25.1		0.100	ug/L	25.0	ND	100	72-127	9.18	25
Dalapon	53.7		0.100	ug/L	50.0	ND	107	82-129	3.69	25
Dicamba	24.3		0.100	ug/L	25.0	ND	97.2	73-125	1.01	25
Dichlorprop	44.3		0.100	ug/L	50.0	ND	88.7	65-121	1.99	25
Dinoseb	48.2		0.100	ug/L	50.0	ND	96.4	70-114	2.94	25
Pentachlorophenol	4.67		0.100	ug/L	5.00	ND	93.5	70-120	2.37	25
Picloram	47.9		0.100	ug/L	50.0	ND	95.9	63-146	8.62	25
3,5-Dichlorobenzoic Acid	24.5		0.100	ug/L	25.0	ND	97.9	49-132	0.627	25
Bentazon	49.7		0.100	ug/L	50.0	ND	99.5	71-127	5.55	25
Acifluorfen	29.6		0.100	ug/L	25.0	ND	118	53-147	21.2	25
<i>Surrogate: DCINA</i>			<i>25.5</i>	<i>ug/L</i>	<i>21.0</i>		<i>122</i>	<i>70-130</i>		



SUB CONTRACTOR: Anatek ID		COMPANY: Anatek Labs, Inc.		PHONE: (208) 883-2839	FAX: (208) 882-9246		
ADDRESS: 1282 Alturas Dr				ACCOUNT #:	EMAIL:		
CITY, STATE, ZIP: Moscow, ID 83843							
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2202637-001E	SVMP_Water IDW	1LAMGU	Aqueous	2/11/2022 2:44:00 PM	1	8151- Herbicides- Report TCLP Limits

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <i>[Signature]</i>	Date: 2/16/2022	Time: 8:44 AM	Received By: <i>EK</i>	Date: 4/17/22	Time: 11:40	REPORT TRANSMITTAL DESIRED: <input type="checkbox"/> HARDCOPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE FOR LAB USE ONLY Temp of samples _____ °C Attempt to Cool? _____ Comments: _____
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
TAT: Standard <input checked="" type="checkbox"/> RUSH Next BD <input type="checkbox"/> 2nd BD <input type="checkbox"/> 3rd BD <input type="checkbox"/>						

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65764	SampType: MBLK	TestCode: EPA Method 6020A: Total Metals								
Client ID: PBW	Batch ID: 65764	RunNo: 86078								
Prep Date: 2/23/2022	Analysis Date: 2/24/2022	SeqNo: 3033067	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: MSLLCS-65764	SampType: LCSLL	TestCode: EPA Method 6020A: Total Metals								
Client ID: BatchQC	Batch ID: 65764	RunNo: 86078								
Prep Date: 2/23/2022	Analysis Date: 2/24/2022	SeqNo: 3033068	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	87.3	70	130			
Selenium	ND	0.0010	0.001000	0	81.2	70	130			

Sample ID: MSLCS-65764	SampType: LCS	TestCode: EPA Method 6020A: Total Metals								
Client ID: LCSW	Batch ID: 65764	RunNo: 86078								
Prep Date: 2/23/2022	Analysis Date: 2/24/2022	SeqNo: 3033069	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.049	0.0010	0.05000	0	97.1	80	120			
Selenium	0.047	0.0010	0.05000	0	94.0	80	120			

Sample ID: MB-65764	SampType: MBLK	TestCode: EPA Method 6020A: Total Metals								
Client ID: PBW	Batch ID: 65764	RunNo: 86097								
Prep Date: 2/23/2022	Analysis Date: 2/25/2022	SeqNo: 3033761	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Sample ID: MSLLCS-65764	SampType: LCSLL	TestCode: EPA Method 6020A: Total Metals								
Client ID: BatchQC	Batch ID: 65764	RunNo: 86097								
Prep Date: 2/23/2022	Analysis Date: 2/25/2022	SeqNo: 3033762	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.0010	0.0010	0.001000	0	104	70	130			

Sample ID: MSLCS-65764	SampType: LCS	TestCode: EPA Method 6020A: Total Metals								
Client ID: LCSW	Batch ID: 65764	RunNo: 86097								
Prep Date: 2/23/2022	Analysis Date: 2/25/2022	SeqNo: 3033763	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.049	0.0010	0.05000	0	98.7	80	120			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: 2202637-001BMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range								
Client ID: SVMP_Water IDW	Batch ID: 65634	RunNo: 85989								
Prep Date: 2/17/2022	Analysis Date: 2/23/2022	SeqNo: 3031299	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	13	1.0	2.500	12.04	46.6	64.7	146			S
Surr: DNOP	0.29		0.2500		114	64.8	167			

Sample ID: 2202637-001BMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range								
Client ID: SVMP_Water IDW	Batch ID: 65634	RunNo: 85989								
Prep Date: 2/17/2022	Analysis Date: 2/23/2022	SeqNo: 3031302	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	15	1.0	2.500	12.04	124	64.7	146	13.7	20	
Surr: DNOP	0.29		0.2500		116	64.8	167	0	0	

Sample ID: MB-65634	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range								
Client ID: PBW	Batch ID: 65634	RunNo: 85989								
Prep Date: 2/17/2022	Analysis Date: 2/23/2022	SeqNo: 3031303	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.55		0.5000		110	64.8	167			

Sample ID: LCS-65634	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range								
Client ID: LCSW	Batch ID: 65634	RunNo: 85989								
Prep Date: 2/17/2022	Analysis Date: 2/23/2022	SeqNo: 3031304	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	2.8	1.0	2.500	0	112	70	130			
Surr: DNOP	0.29		0.2500		118	64.8	167			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65643	SampType: MBLK		TestCode: EPA Method 8081: Pesticides TCLP							
Client ID: PBW	Batch ID: 65643		RunNo: 85978							
Prep Date: 2/18/2022	Analysis Date: 2/21/2022		SeqNo: 3031121		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlordane	ND	0.030								
Endrin	ND	0.020								
gamma-BHC (Lindane)	ND	0.40								
Heptachlor	ND	0.0080								
Heptachlor epoxide	ND	0.0080								
Methoxychlor	ND	10								
Toxaphene	ND	0.50								
Surr: Decachlorobiphenyl	0.0032		0.002500		127	73	119			S
Surr: Tetrachloro-m-xylene	0.0023		0.002500		90.8	36.6	84.1			S

Sample ID: MB-65643	SampType: MBLK		TestCode: EPA Method 8081: Pesticides TCLP							
Client ID: PBW	Batch ID: 65643		RunNo: 85978							
Prep Date: 2/18/2022	Analysis Date: 2/21/2022		SeqNo: 3031122		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlordane	ND	0.030								
Endrin	ND	0.020								
gamma-BHC (Lindane)	ND	0.40								
Heptachlor	ND	0.0080								
Heptachlor epoxide	ND	0.0080								
Methoxychlor	ND	10								
Toxaphene	ND	0.50								
Surr: Decachlorobiphenyl	0.0032		0.002500		130	73	119			S
Surr: Tetrachloro-m-xylene	0.0023		0.002500		90.9	36.6	84.1			S

Sample ID: LCS-65643	SampType: LCS		TestCode: EPA Method 8081: Pesticides TCLP							
Client ID: LCSW	Batch ID: 65643		RunNo: 85978							
Prep Date: 2/18/2022	Analysis Date: 2/21/2022		SeqNo: 3031123		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin	0.00048	0.00010	0.0005000	0	97.0	56.3	126			
gamma-BHC (Lindane)	0.00038	0.00010	0.0005000	0	75.1	45.8	103			
Heptachlor	0.00030	0.00010	0.0005000	0	59.0	33.7	104			
Heptachlor epoxide	0.00045	0.00010	0.0005000	0	89.3	50.1	116			
Methoxychlor	0.00053	0.00010	0.0005000	0	105	15	203			
Surr: Decachlorobiphenyl	0.0031		0.002500		124	73	119			S
Surr: Tetrachloro-m-xylene	0.0016		0.002500		63.5	36.6	84.1			

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Estimated value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix interference | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: LCS-65643		SampType: LCS		TestCode: EPA Method 8081: Pesticides TCLP						
Client ID: LCSW		Batch ID: 65643		RunNo: 85978						
Prep Date: 2/18/2022		Analysis Date: 2/21/2022		SeqNo: 3031124			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin	0.00048	0.00010	0.0005000	0	96.6	56.3	126			
gamma-BHC (Lindane)	0.00038	0.00010	0.0005000	0	76.8	45.8	103			
Heptachlor	0.00029	0.00010	0.0005000	0	58.8	33.7	104			
Heptachlor epoxide	0.00044	0.00010	0.0005000	0	88.7	50.1	116			
Methoxychlor	0.00052	0.00010	0.0005000	0	103	15	203			
Surr: Decachlorobiphenyl	0.0032		0.002500		126	73	119			S
Surr: Tetrachloro-m-xylene	0.0016		0.002500		64.2	36.6	84.1			

Sample ID: LCSD-65643		SampType: LCSD		TestCode: EPA Method 8081: Pesticides TCLP						
Client ID: LCSS02		Batch ID: 65643		RunNo: 85978						
Prep Date: 2/18/2022		Analysis Date: 2/21/2022		SeqNo: 3031125			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin	0.00051	0.00010	0.0005000	0	103	56.3	126	5.68	20	
gamma-BHC (Lindane)	0.00041	0.00010	0.0005000	0	83.0	45.8	103	10.0	20	
Heptachlor	0.00032	0.00010	0.0005000	0	63.1	33.7	104	6.74	20	
Heptachlor epoxide	0.00047	0.00010	0.0005000	0	94.8	50.1	116	5.97	20	
Methoxychlor	0.00057	0.00010	0.0005000	0	114	15	203	7.94	20	
Surr: Decachlorobiphenyl	0.0033		0.002500		132	73	119	0	0	S
Surr: Tetrachloro-m-xylene	0.0020		0.002500		80.9	36.6	84.1	0	0	

Sample ID: LCSD-65643		SampType: LCSD		TestCode: EPA Method 8081: Pesticides TCLP						
Client ID: LCSS02		Batch ID: 65643		RunNo: 85978						
Prep Date: 2/18/2022		Analysis Date: 2/21/2022		SeqNo: 3031126			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin	0.00052	0.00010	0.0005000	0	104	56.3	126	7.03	20	
gamma-BHC (Lindane)	0.00043	0.00010	0.0005000	0	85.7	45.8	103	11.0	20	
Heptachlor	0.00032	0.00010	0.0005000	0	63.8	33.7	104	8.24	20	
Heptachlor epoxide	0.00047	0.00010	0.0005000	0	94.9	50.1	116	6.73	20	
Methoxychlor	0.00058	0.00010	0.0005000	0	116	15	203	11.4	20	
Surr: Decachlorobiphenyl	0.0034		0.002500		136	73	119	0	0	S
Surr: Tetrachloro-m-xylene	0.0020		0.002500		81.9	36.6	84.1	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: 100ng lcs	SampType: LCS	TestCode: TCLP Volatiles by 8260B								
Client ID: LCSW	Batch ID: B85899	RunNo: 85899								
Prep Date:	Analysis Date: 2/17/2022	SeqNo: 3025360 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.021	0.00023	0.02000	0	105	70	130			
1,1-Dichloroethene	0.020	0.00020	0.02000	0	102	70	130			
Trichloroethene (TCE)	0.020	0.00020	0.02000	0	98.8	70	130			
Chlorobenzene	0.019	0.00016	0.02000	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	0.010		0.01000		101	70	130			
Surr: 4-Bromofluorobenzene	0.010		0.01000		101	70	130			
Surr: Dibromofluoromethane	0.010		0.01000		99.6	70	130			
Surr: Toluene-d8	0.010		0.01000		103	70	130			

Sample ID: mb	SampType: MBLK	TestCode: TCLP Volatiles by 8260B								
Client ID: PBW	Batch ID: B85899	RunNo: 85899								
Prep Date:	Analysis Date: 2/17/2022	SeqNo: 3025363 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
1,2-Dichloroethane (EDC)	ND	0.50								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,1-Dichloroethene	ND	0.70								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Chlorobenzene	ND	100								
Surr: 1,2-Dichloroethane-d4	0.0095		0.01000		95.5	70	130			
Surr: 4-Bromofluorobenzene	0.0095		0.01000		95.2	70	130			
Surr: Dibromofluoromethane	0.0095		0.01000		95.1	70	130			
Surr: Toluene-d8	0.010		0.01000		100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E Estimated value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: MB-65605	SampType: MBLK		TestCode: EPA Method 8270C TCLP							
Client ID: PBW	Batch ID: 65605		RunNo: 85986							
Prep Date: 2/17/2022	Analysis Date: 2/22/2022		SeqNo: 3030079		Units: mg/L					
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.10		0.2000		51.2	15	118			
Surr: Phenol-d5	0.080		0.2000		39.9	15	92.9			
Surr: 2,4,6-Tribromophenol	0.15		0.2000		77.1	15	150			
Surr: Nitrobenzene-d5	0.055		0.1000		54.9	15	136			
Surr: 2-Fluorobiphenyl	0.052		0.1000		52.0	15	134			
Surr: 4-Terphenyl-d14	0.10		0.1000		101	15	168			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: LCS-65605	SampType: LCS		TestCode: EPA Method 8270C TCLP							
Client ID: LCSW	Batch ID: 65605		RunNo: 85986							
Prep Date: 2/17/2022	Analysis Date: 2/22/2022		SeqNo: 3030080		Units: mg/L					
2-Methylphenol	0.048	0.00010	0.1000	0	48.3	19	106			
3+4-Methylphenol	0.098	0.00010	0.2000	0	49.1	16.3	112			
2,4-Dinitrotoluene	0.042	0.00010	0.1000	0	41.6	15	99.6			
Hexachlorobenzene	0.055	0.00010	0.1000	0	55.4	41.8	111			
Hexachlorobutadiene	0.038	0.00010	0.1000	0	38.3	15	91.5			
Hexachloroethane	0.043	0.00010	0.1000	0	42.6	15	87.5			
Nitrobenzene	0.051	0.00010	0.1000	0	51.2	19.3	114			
Pentachlorophenol	0.059	0.00010	0.1000	0	59.3	29	103			
Pyridine	0.024	0.00010	0.1000	0	24.4	15	92.6			
2,4,5-Trichlorophenol	0.059	0.00010	0.1000	0	58.6	25.2	114			
2,4,6-Trichlorophenol	0.052	0.00010	0.1000	0	52.2	25.7	112			
Cresols, Total	0.15	0.00010	0.3000	0	48.8	15	145			
Surr: 2-Fluorophenol	0.091		0.2000		45.4	15	118			
Surr: Phenol-d5	0.067		0.2000		33.7	15	92.9			
Surr: 2,4,6-Tribromophenol	0.14		0.2000		72.4	15	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: LCS-65605	SampType: LCS	TestCode: EPA Method 8270C TCLP								
Client ID: LCSW	Batch ID: 65605	RunNo: 85986								
Prep Date: 2/17/2022	Analysis Date: 2/22/2022	SeqNo: 3030080 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	0.056		0.1000		56.1	15	136			
Surr: 2-Fluorobiphenyl	0.056		0.1000		56.3	15	134			
Surr: 4-Terphenyl-d14	0.098		0.1000		97.7	15	168			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: MB-65535	SampType: MBLK	TestCode: EPA Method 7470A: Mercury								
Client ID: PBW	Batch ID: 65535	RunNo: 85827								
Prep Date: 2/14/2022	Analysis Date: 2/15/2022	SeqNo: 3022443	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: LCSLL-65535	SampType: LCSLL	TestCode: EPA Method 7470A: Mercury								
Client ID: BatchQC	Batch ID: 65535	RunNo: 85827								
Prep Date: 2/14/2022	Analysis Date: 2/15/2022	SeqNo: 3022444	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020	0.0001500	0	119	50	150			

Sample ID: LCS-65535	SampType: LCS	TestCode: EPA Method 7470A: Mercury								
Client ID: LCSW	Batch ID: 65535	RunNo: 85827								
Prep Date: 2/14/2022	Analysis Date: 2/15/2022	SeqNo: 3022445	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.9	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc

Project: BFF

Sample ID: MB-65764	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 65764	RunNo: 86116								
Prep Date: 2/23/2022	Analysis Date: 2/25/2022	SeqNo: 3034280	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Silver	ND	0.0050								

Sample ID: LCS-65764	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 65764	RunNo: 86116								
Prep Date: 2/23/2022	Analysis Date: 2/25/2022	SeqNo: 3034282	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	80	120			
Cadmium	0.48	0.0020	0.5000	0	96.2	80	120			
Chromium	0.48	0.0060	0.5000	0	95.6	80	120			
Silver	0.11	0.0050	0.1000	0	111	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202637

11-Mar-22

Client: Hazair, Inc
Project: BFF

Sample ID: 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: C85899		RunNo: 85899							
Prep Date:	Analysis Date: 2/17/2022		SeqNo: 3025365		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.9	70	130			

Sample ID: 2202637-001a ms g	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SVMP_Water IDW	Batch ID: C85899		RunNo: 85899							
Prep Date:	Analysis Date: 2/17/2022		SeqNo: 3025367		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.2	0.25	2.500	0	89.3	70	130			
Surr: 4-Bromofluorobenzene	48		50.00		96.0	70	130			

Sample ID: 2202637-001a msd g	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SVMP_Water IDW	Batch ID: C85899		RunNo: 85899							
Prep Date:	Analysis Date: 2/17/2022		SeqNo: 3025368		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.1	0.25	2.500	0	85.7	70	130	4.16	20	
Surr: 4-Bromofluorobenzene	50		50.00		100	70	130	0	0	

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: C85899		RunNo: 85899							
Prep Date:	Analysis Date: 2/17/2022		SeqNo: 3025370		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Sample Log-In Check List

Client Name: Hazair, Inc

Work Order Number: 2202637

RcptNo: 1

Received By: Kasandra Payan

2/11/2022 4:31:00 PM

K Payan

Completed By: Sean Livingston

2/11/2022 4:35:42 PM

S Livingston

Reviewed By: *[Signature]* 2-14-22

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes No NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- Samples were collected the same day and chilled.
5. Sample(s) in proper container(s)? Yes No
6. Sufficient sample volume for indicated test(s)? Yes No
7. Are samples (except VOA and ONG) properly preserved? Yes No
8. Was preservative added to bottles? Yes No NA
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
10. Were any sample containers received broken? Yes No
11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes No
13. Is it clear what analyses were requested? Yes No
14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 2
 (<2 or >12 unless noted)
 Adjusted? No
 Checked by: JN 2/14/22

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	11.4	Good				

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NM9570024423		Manifest Document No. D427893	2. Page 1 of 1
3. Generator's Name and Mailing Address BFF IDWYARD - KAFB 35.049204, - 106.567564 ALBUQUERQUE, NM 87117					
4. Generator's Phone (505-702-5632)					
5. Transporter 1 Company Name Advanced Chemical Transport Inc./DBA ACTenviro		6. US EPA ID Number CAR000070540		A. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone	
				C. State Transporter's ID	
				D. Transporter 2 Phone	
9. Designated Facility Name and Site Address Advanced Chemical Treatment 6138 Edith Blvd NE Albuquerque, NM 87107 505-349-5220		10. US EPA ID Number NMD002208627		E. State Facility's ID	
				F. Facility's Phone	
11. WASTE DESCRIPTION		Containers		13. Total Quantity	
		No. Type			
a. Non-RCRA/Non-DOT Regulated Material Solid (IDW Soil)		2 DM		800 ^{PK} 1107	
b. Non-RCRA/Non-DOT Regulated Material Solid (IDW Soil)		1 DF		130 234	
c. Non-RCRA/Non-DOT Regulated Material Solid (IDW Soil)		1 DF		40 ^{PK} 57	
d. Non-RCRA/Non-DOT Regulated Material Liquid (IDW Water)		1 DF		40 ^{PK} 5	
G. Additional Descriptions for Materials Listed Above Project Number 350942 Document #: D427893				H. Handling Codes for Wastes Listed Above	
1) ACT160743 BFA- <u>2x 55DM</u>					
2) ACT160743 BFA- <u>1x 30DP</u>					
3) ACT160743 BFA- <u>1x 5DF</u>					
4) ACT160746 BFA- <u>1x 5DF</u>					
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.					
Printed/Typed Name X Scott Clark				Date Month Day Year 01 14 22	
Signature <i>[Signature]</i>					
17. Transporter 1 Acknowledgement of Receipt of Materials				Date	
Printed/Typed Name Dan Rivler				Month Day Year 04 14 22	
Signature <i>[Signature]</i>					
18. Transporter 2 Acknowledgement of Receipt of Materials				Date	
Printed/Typed Name				Month Day Year	
Signature					
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.					
Printed/Typed Name MICHAEL GWATH				Date Month Day Year 4 15 22	
Signature <i>[Signature]</i>					

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

Project file data		Coordinate System	
Name:	P:\data\2022\2022.006.2\SUR\TBC \20220062_grid.vce	Name:	Default
Size:	110 KB	Datum:	WGS 1984
Modified:	2/14/2022 5:39:33 PM (UTC:-7)	Zone:	Default
Time zone:	Mountain Standard Time	Geoid:	GEOID12B (Conus)
Reference number:		Vertical datum:	
Description:		Calibrated site:	
Comment 1:			
Comment 2:			
Comment 3:			

Additional Coordinate System Details

Local Site Settings			
Project latitude:	?	Ground scale factor:	1
Project longitude:	?	False northing offset:	0.000
Project height:	5300.000	False easting offset:	0.000

Point List

ID	Latitude (Global)	Longitude (Global)	Height (Global) (US survey foot)	Feature Code
21422_well_001	N35°03'11.24465"	W106°34'41.19526"	5274.269	WL
21422_well_002	N35°03'11.25846"	W106°34'41.19975"	5274.254	COE
21422_well_003	N35°03'10.38722"	W106°34'37.51358"	5275.817	WL
21422_well_004	N35°03'10.40217"	W106°34'37.51040"	5275.792	COE
21422_well_005	N35°03'10.21901"	W106°34'33.89931"	5279.500	WL
21422_well_006	N35°03'10.23219"	W106°34'33.89294"	5279.487	COE
21422_well_007	N35°03'15.65510"	W106°34'36.84944"	5270.010	WL
21422_well_008	N35°03'15.66806"	W106°34'36.84977"	5269.948	COE
21422_well_009	N35°03'04.07614"	W106°34'54.17202"	5272.508	WL
21422_well_010	N35°03'04.08921"	W106°34'54.17167"	5272.476	COE
21422_well_011	N35°03'03.96391"	W106°34'47.54797"	5274.525	WL
21422_well_012	N35°03'03.97637"	W106°34'47.54686"	5274.487	COE
21422_well_013	N35°03'03.84179"	W106°34'42.02592"	5276.714	WL
21422_well_014	N35°03'03.85370"	W106°34'42.02613"	5276.675	COE
21422_well_015	N35°03'03.95358"	W106°34'38.36385"	5279.053	WL
21422_well_016	N35°03'03.96479"	W106°34'38.36422"	5279.026	COE

2/23/2022 7:11:56 AM	P:\data\2022\2022.006.2\SUR\TBC \20220062_grid.vce	Trimble Business Center
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Project file data		Coordinate System	
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Size:	110 KB	Datum:	WGS 1984
Modified:	2/14/2022 5:39:33 PM (UTC:-7)	Zone:	Default
Time zone:	Mountain Standard Time	Geoid:	GEOID12B (Conus)
Reference number:		Vertical datum:	
Description:		Calibrated site:	
Comment 1:			
Comment 2:			
Comment 3:			

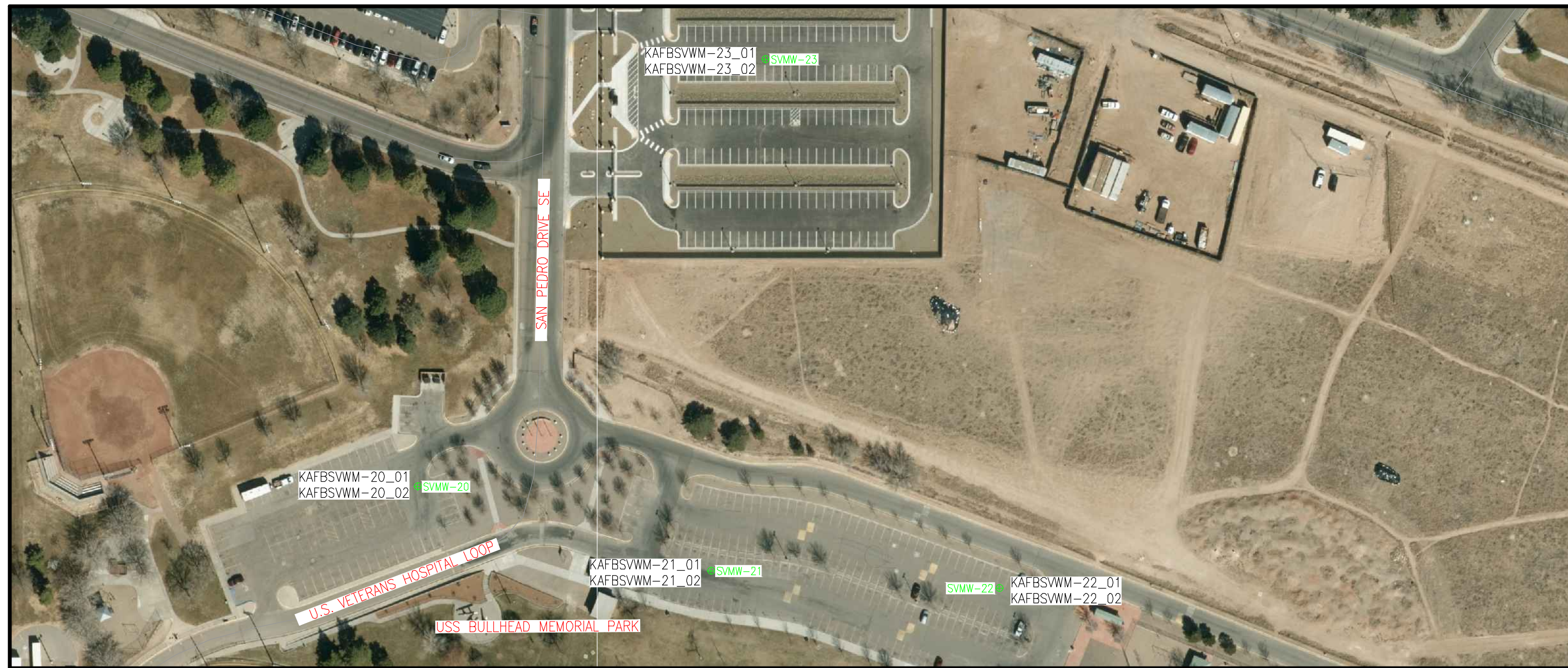
Additional Coordinate System Details

Local Site Settings			
Project latitude:	?	Ground scale factor:	1
Project longitude:	?	False northing offset:	0.000
Project height:	5300.000	False easting offset:	0.000

Point List

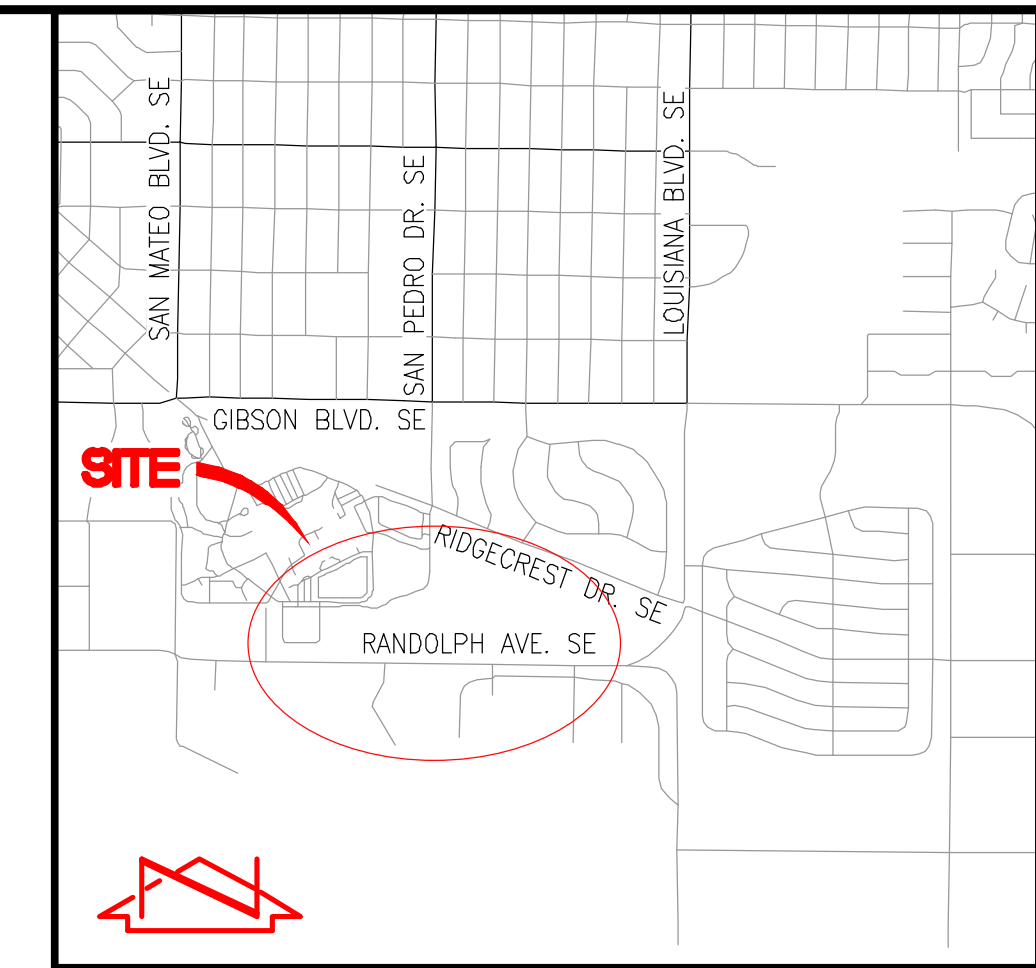
ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code
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21422_well_002	1474789.873	1542220.188	5343.284	COE
21422_well_003	1474700.788	1542526.342	5344.825	WL
21422_well_004	1474702.298	1542526.611	5344.799	COE
21422_well_005	1474682.799	1542826.753	5348.485	WL
21422_well_006	1474684.129	1542827.287	5348.472	COE
21422_well_007	1475233.169	1542583.299	5339.011	WL
21422_well_008	1475234.479	1542583.276	5338.948	COE
21422_well_009	1474067.334	1541139.348	5341.621	WL
21422_well_010	1474068.656	1541139.381	5341.589	COE
21422_well_011	1474054.162	1541690.001	5343.598	WL
21422_well_012	1474055.422	1541690.098	5343.559	COE
21422_well_013	1474040.301	1542149.037	5345.753	WL
21422_well_014	1474041.506	1542149.024	5345.715	COE
21422_well_015	1474050.603	1542453.522	5348.070	WL
21422_well_016	1474051.736	1542453.494	5348.042	COE

2/23/2022 7:16:46 AM	P:\data\2022\2022.006.2\SUR\TBC \20220062_grid.vce	Trimble Business Center
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WELLS KAFB-SVMW20, SVMW21, SVMW22, SVMW23

SCALE: 1" = 100'



VICINITY MAP
NOT TO SCALE

M-18



WELLS KAFB-SVMW16, SVMW17, SVMW18, SVMW19

SCALE: 1" = 100'

GENERAL NOTES

1. AN UNCLASSIFIED SURVEY FOR WELL LOCATIONS (KAFB-SVMW16, KAFB-SVMW17, KAFB-SVMW18, KAFB-SVMW19, KAFB-SVMW20, KAFB-SVMW21, KAFB-SVMW22, KAFB-SVMW23) WAS PERFORMED ON FEBRUARY 14, 2022. THIS IS NOT A BOUNDARY SURVEY OR A RIGHT-OF-WAY SURVEY.
2. WELL LOCATIONS ARE NAD 83 GRID COORDINATES (NEW MEXICO CENTRAL 3002). ELEVATIONS ARE NAVD 88 VERTICAL DATUM.
3. SITE LOCATED WITHIN SECTION 36, TOWNSHIP 10 NORTH, RANGE 3 EAST N.M.P.M.
4. THE PHOTOBASED IMAGE, DEPICTED ON THIS SURVEY, WAS IMPORTED FROM BERNOCO.GOV AND MRCOG. THIS PHOTOBASE IMAGE IS SHOWN TO PROVIDE A GENERAL SITE ORIENTATION AND MAY NOT REFLECT THE CURRENT SITE CONDITIONS.
5. THE PURPOSE OF THIS SURVEY IS TO ESTABLISH NEW MEXICO STATE PLANE GRID COORDINATES AND SURFACE ELEVATIONS FOR THE LOCATIONS OF THE HAZAIR, INC. MONITORING AND EXTRACTION WELLS.

CONTROL SURVEY NOTE

A CONTROL SURVEY WAS CONDUCTED AT THE SITE ON APRIL 17, 2008 AND VERIFIED ON FEBRUARY 14, 2022. CONTROL WAS PROJECTED ONTO THE SUBJECT SITE UTILIZING RTK GPS OBSERVATIONS COMBINED WITH GEOD 12B (CONUS) TO ESTABLISH HORIZONTAL AND VERTICAL POSITIONS BASED UPON NAD83/NAVD 88 DATUM. THE POINTS OBSERVED HAVE BEEN QUALITY CONTROLLED FOR RELATIVE ACCURACY. AN NMSHC BENCHMARK (G-2) IN THE VICINITY OF THE PROJECT WAS OBSERVED IN ORDER TO PROVIDE REFERENCE TIES TO THE SITE. THE COORDINATES LISTED BELOW ARE GRID COORDINATES:

LATITUDE: N35°03'29.55211", LONGITUDE: W106°34'08.48412", ELLIPSOID HEIGHT 1605.871 METERS.

ELEVATIONS SHOWN HAVE BEEN QUALITY CONTROLLED BASED UPON USGS PROVISIONAL CONTROL DATA BY PERFORMANCE OF A CLOSED SPIRIT LEVEL LOOPS BETWEEN EXISTING KAFB WELLS.

PROJECT BENCHMARK: G-2

AN NMSHC CONTROL MONUMENT BRASS CAP SET IN CONCRETE STAMPED "STA. G-2". THE STATION IS LOCATED IN THE CENTER OF THE WESTERN ISLAND OF THE INTERSECTION OF GIBSON BLVD S.E. AND LOUISIANA BLVD S.E. ELEVATION = 5337.43 FEET (NAVD 1988)

COORDINATE TABLE

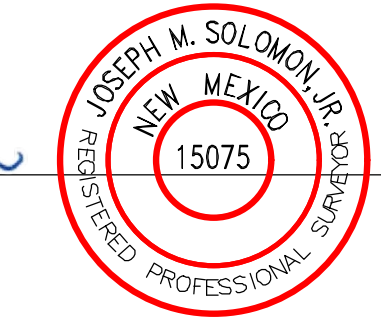
POINT NO.	NORTHING-GRID	EASTING-GRID	ELEVATION	DESCRIPTION	LATITUDE-NORTH	LONGITUDE-WEST	Y-METER	X-METER	Z-METER
	1476630.47	1544945.86	5337.43	G-2(Project Benchmark)	35°03'29.55211"	106°34'08.48412"	450077.868	470900.438	1626.849

WELL	POINT NO.	NORTHING-GRID	EASTING-GRID	ELEVATION	DESCRIPTION	LATITUDE-NORTH	LONGITUDE-WEST	Y-METER	X-METER	Z-METER
KAFB-SVMW-16	KAFBSVMW16_01	1474067.33	1541139.35	5341.62	TOP(LID)	35°03'04.07614"	-106°34'54.17202"	449296.622	469740.21	1628.129
	KAFBSVMW16_02	1474066.66	1541139.38	5341.59	TCP(TOP OF CONCRETE)	35°03'04.08921"	-106°34'54.17167"	449297.025	469740.223	1628.120
KAFB-SVMW-17	KAFBSVMW17_01	1474054.16	1541690.00	5343.60	TOP(LID)	35°03'03.96391"	-106°34'47.54797"	449292.607	469908.052	1628.733
	KAFBSVMW17_02	1474055.42	1541690.10	5343.56	TCP(TOP OF CONCRETE)	35°03'03.97637"	-106°34'47.54886"	449292.891	469908.082	1628.720
KAFB-SVMW-18	KAFBSVMW18_01	1474040.30	1542149.04	5345.75	TOP(LID)	35°03'03.84179"	-106°34'42.02592"	449288.382	470047.967	1629.388
	KAFBSVMW18_02	1474041.51	1542149.02	5345.71	TCP(TOP OF CONCRETE)	35°03'03.85370"	-106°34'42.02613"	449288.750	470047.963	1629.376
KAFB-SVMW-19	KAFBSVMW19_01	1474050.60	1542453.52	5348.07	TOP(LID)	35°03'03.95358"	-106°34'38.36385"	449291.522	470140.774	1630.095
	KAFBSVMW19_02	1474051.74	1542453.49	5348.04	TCP(TOP OF CONCRETE)	35°03'03.96479"	-106°34'38.36422"	449291.868	470140.765	1630.086
KAFB-SVMW-20	KAFBSVMW20_01	1474788.48	1542220.56	5343.30	TOP(LID)	35°03'11.24465"	-106°34'41.19526"	449516.426	470069.766	1628.641
	KAFBSVMW20_02	1474789.87	1542220.19	5343.28	TCP(TOP OF CONCRETE)	35°03'11.25846"	-106°34'41.19975"	449516.852	470069.653	1628.635
KAFB-SVMW-21	KAFBSVMW21_01	1474700.79	1542526.34	5344.82	TOP(LID)	35°03'10.38722"	-106°34'37.51358"	449489.699	470162.969	1629.104
	KAFBSVMW21_02	1474702.30	1542526.61	5344.80	TCP(TOP OF CONCRETE)	35°03'10.40217"	-106°34'37.51040"	449490.159	470163.051	1629.098
KAFB-SVMW-22	KAFBSVMW22_01	1474682.80	1542826.75	5348.49	TOP(LID)	35°03'10.21901"	-106°34'33.89931"	449484.216	470254.535	1630.223
	KAFBSVMW22_02	1474684.13	1542827.29	5348.47	TCP(TOP OF CONCRETE)	35°03'10.23219"	-106°34'33.89294"	449484.621	470254.698	1630.217
KAFB-SVMW-23	KAFBSVMW23_01	1475233.17	1542583.30	5339.01	TOP(LID)	35°03'15.65510"	-106°34'36.84944"	449651.969	470180.330	1627.334
	KAFBSVMW23_02	1475234.48	1542583.28	5338.95	TCP(TOP OF CONCRETE)	35°03'15.66806"	-106°34'36.84977"	449652.369	470180.323	1627.315

SURVEYORS CERTIFICATION

I, JOSEPH M. SOLOMON, JR., NEW MEXICO PROFESSIONAL SURVEYOR NO. 15075, DO HEREBY CERTIFY; THAT THIS UNCLASSIFIED SURVEY AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

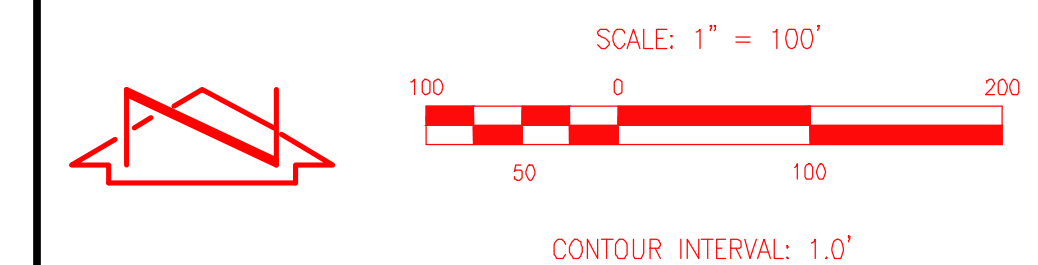
Joseph M. Solomon, Jr.
JOSEPH M. SOLOMON, JR., NMPS 15075



February 23, 2022
DATE



6010-B Midway Park Blvd. NE • Albuquerque, New Mexico 87109
Phone: 505.345.4250 • Fax: 505.345.4254 • www.highmesa.com



UNCLASSIFIED SURVEY - WELL LOCATION SURVEY
HazAir KAFB WELLS

D-5

SURVEYED BY	NO.	DATE	BY	REVISIONS		JOB NO.
				NO.	DATE	
J.P.U./M.V.Z.						2022.006.2
DRAWN BY						DATE
F.E.S.						02-2022
APPROVED BY						SHEET
J.M.S.						1 OF 1



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SUMW-16 DATE: 8/9/22

Background: BKGD-080922

$D_{up} P_e D_{up} = 27.1 \text{ Hg}$
 $ID = 500326 \text{ H}_2\text{O} > 1.5 \text{ in H}_2\text{O}$
 $Start: 0846 \text{ End: } 0900$
 8/10/22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5		-3					0	0.15	0	0	0	19.9	0	$P_e = 27.1 \text{ Hg}$
5	1055	0	0				0.3	0.15	0	5.0	0.3	19.4	0	$P_e = 1.5 \text{ in H}_2\text{O}$
5	1058	3	3				0.3	0.2	0	4.6	0.3	19.3	0	CID: SSC00563
5	1101	6	6				0.3	0.2	0	4.4	0.3	19.2	0	SSD: SUMW-16-5-2
5	1104	9	9				0.3	0.2	0	4.3	0.3	19.2	0	Start: 1105
5		12												End: 1141
5		15												
5		18												
10		-3			-0.15		0	0.15	0	0	6	19.7	0	$P_e = 27.1 \text{ Hg}$
10	1128	0	0				0	0.5	0.1	10.4	0.3	19.2	0	$P_e = 1.5 \text{ in H}_2\text{O}$
10	1131	3	3				0	0.5	0.1	4.6	0.4	19.2	0	CID: A500962
10	1134	6	6				0	0.5	0.1	4.2	0.4	19.2	0	SSD: SUMW-16-10-2
10	1137	9	9				0	0.5	0.1	3.9	0.3	19.2	0	Start: 1138
10		12												End: 1149
10		15												
10		18												
15		-3				0	0	0	0	0	19.6	0	0	$P_e = 27.1 \text{ Hg}$
15	1203	0	0 0				0	0	1.0	7.5	0.3	19.0	0	$P_e = 1.5 \text{ in H}_2\text{O}$
15	1206	3	3				0	0	1.0	5.0	0.3	18.9	0	CID: A501156
15	1209	6	6				0	0	1.0	4.1	0.3	18.9	0	SSD: SUMW-16-15-2
15	1212	9	9				0	0	1.0	3.8	0.3	18.9	0	Start: 1220
15	1215	12	12				0	0	1.0	3.6	0.3	18.9	0	End: 1231
15	1218	15	15				0	0	1.0	3.7	0.3	18.8	0	
15		18												



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-17 DATE: 8/9/22

Background: BKGD-080922

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (LPM)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3				0	0	0	0	0	19.4	0	0	P _i = 27.2 in Hg
5	1247		0				0.45	0	0	5.5	0.1	18.8	0	0.45	P _f = 1.5 in H ₂ O
5	1250		3				0.45	0	0	4.6	0.1	18.8	0	0.45	CID: AS00678
5	1253		6				0.45	0	0	4.2	0.1	18.8	0	0.45	SID: SVMW-17-5-2
5			9												Start: 1254
5			12												End: 1304
5			15												
5			18												
10			-3		0		0	0	0	0	0	19.3	0	0	P _i = 27.2 in Hg
10	1311		0				0	0.7	0	6.5	0.1	18.6	0	0.45	P _f = 1.5 in H ₂ O
10	1314		3				0	0.7	0	5.9	0.1	18.7	0	0.45	CID: AS01318
10	1317		6				0	0.7	0	5.3	0.1	18.7	0	0.45	SID: SVMW-17-10-2
10			9												Start: 1318
10			12												End: 1327
10			15												
10			18												
15			-3			0	0	0	0	0	0	19.1	0	0	P _i = 27.2 in Hg
15	1333		0				0	0	2.4	8.5	0.1	18.4	0	0.45	P _f = 1.5 in H ₂ O
15	1336		3				0	0	2.4	6.3	0.1	18.4	0	0.45	CID: AS01455
15	1339		6				0	0	2.4	5.1	0.1	18.5	0	0.45	SID: SVMW-17-15-2
15	1342		9				0	0	2.4	4.1	0.1	18.5	0	0.45	Start: 1346
15	1345		12				0	0	2.4	4.1	0.1	18.5	0	0.45	End: 1358
15			15												
15			18												



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-18 DATE: 8/10/22

Background: BKGD-081022

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (L/min)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3				0	0.4	0.05	0	0	20.0	0	0	P _i = 27 in Hg
5	0919		0				0.2	0.4	0.05	3.0	0.2	19.7	0	0.45	P _r = 1.5 in H ₂ O
5	0922		3				0.25	0.4	0.05	3.7	0.2	19.6	0	0.45	CID: SSC00919
5	0925		6				0.25	0.4	0.05	3.6	0.2	19.6	0	0.45	SID: SVMW-18-5-2
5			9												Start: 0926
5			12												End: 0936
5			15												
5			18												
10			-3		-0.4		0	0.4	0	0	0	19.9	0	0	P _i = 27 in Hg
10	0942		0				0	0.8	0	9.9	0.3	19.6	0	0.45	P _r = 1.5 in H ₂ O
10	0945		3				0	0.4	0	4.2	0.3	19.5	0	0.45	CID: SSC00535
10	0948		6				0	0.4	0	4.0	0.3	19.5	0	0.45	SID: SVMW-18-10-2
10	0951		9				0	0.4	0	3.7	0.3	19.6	0	0.45	Start: 0952
10			12												End: 1003
10			15												
10			18												
15			-3			-0.05	0	0.05	0.1	0	0	19.8	0	0	P _i = 27 in Hg
15	1009		0				0	0.05	0.7	6.4	0.3	19.5	0	0.45	P _r = 1.5 in Hg
15	1012		3				0	0.05	0.7	4.4	0.3	19.4	0	0.45	CID: AS00974
15	1015		6				0	0.05	0.7	4.2	0.3	19.4	0	0.45	SID: SVMW-18-15-2
15			9												Start: 1016
15			12												End: 1027
15			15												
15			18												



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-19 DATE: 8/10/22

Background: BKGD-081022

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (L/min)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3				0	0	0	0	0	19.9	0	0	P _i = 27 in Hg
5	1042		0				0.3	0	0	4.4	0.1	19.6	0	0.45	P _f = 1.5 in H ₂ O
5	1045		3				0.3	0	0	4.9	0.1	19.6	0	0.45	CID: ACO2367
5	1048		6				0.3	0	0	4.6	0.1	19.6	0	0.45	STD: SVMW-19-5-2
5	1051		9				0.3	0	0	4.1	0.1	19.6	0	0.45	Start: 1055
5	1054		12				0.3	0	0	4.2	0.1	19.6	0	0.45	End: 1105
5			15												
5			18												
10			-3		0		0	0	0	0	0	20.0	0	0	P _i = 27 in Hg
10	1112		0				0	0.5	0	5.6	0.2	19.6	0	0.45	P _f = 1.5 in H ₂ O
10	1115		3				0	0.5	0.05	4.6	0.2	19.5	0	0.45	CID: SCO2284
10	1118		6				0	0.5	0.05	4.4	0.2	19.6	0	0.45	STD: SVMW-19-10-2
10	1121		9				0	0.5	0.05	4.1	0.2	19.6	0	0.45	Start: 1121
10			12												End: 1132
10			15												
10			18												
15			-3			0	0	0	0.1	0	0	20.2	0	0	P _i = 27 in Hg
15	1134		0				0	0	0.8	6.5	0.2	19.7	0	0.45	P _f = 1.5 in H ₂ O
15	1137		3				0	0	0.8	4.3	0.2	19.6	0	0.45	CID: 4501598
15	1140		6				0	0	0.8	4.2	0.2	19.6	0	0.45	STD: SVMW-19-15-2
15	1143		9				0	0	0.8	3.9	0.2	19.7	0	0.45	Start: 1156
15	1146		12				0	0	0.8	3.6	0.2	19.6	0	0.45	End: 1208
15	1149		15				0	0	0.8	3.3	0.2	19.7	0	0.45	
15	1152		18				0	0	0.8	3.3	0.2	19.7	0	0.45	
15	1155		21				0	0	0.8E-6	3.2	0.2	19.7	0	0.45	



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SUMW-20 DATE: 8/8/22

Background: BKGD-080822

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (LPM)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3	0			0	0	0	0	14.6	0	0	P: = 27 in Hg	
5	1057		0	0			1.8	0	0	2.6	1.9	17.0	0	0.45	Pf = 1.5 in H ₂ O
5	1100		3	3			1.8	0	0	2.5	2.0	16.9	0	0.45	CID: SC00104
5	1103		6	6			1.8	0	0	2.4	2.0	16.9	0	0.45	SID: SUMW-20-5-2
5	1106		9	9			1.8	0	0	2.3	1.9	16.9	0	0.45	Start: 1110
5	1109		12	12			1.8	0	0	2.1	1.9	16.9	0	0.45	End: 1122
5			15												
5			18												
10			-3		0		0	0	0	0	0.1	18.5	0	0	P: = 27 in Hg
10	1132		0	0			0	0.3	0	2.5	1.8	16.8	0	0.45	Pf = 1.5 in H ₂ O
10	1135		3	3			0	0.3	0	2.1	1.8	16.8	0	0.45	CID: SC02235
10	1138		6	6			0	0.3	0	1.8	1.8	16.7	0	0.45	SID: SUMW-20-10-2
10	1141		9	9			0	0.3	0	1.6	1.8	16.8	0	0.45	Start: 1142
10			12												End: 1152
10			15												
10			18												
15			-3			0	0	0	0	0	0	18.7	0	0	P: = 27 in Hg
15	1206		0	0			0	0	0.4	6.0	1.6	16.9	0	0.45	Pf = 1.5 in H ₂ O
15	1203		3	3			0	0	0.4	2.6	1.6	16.9	0	0.45	CID: ACC1825
15	1208		6	6			0	0	0.4	2.2	1.6	16.9	0	0.45	SID: SUMW-20-15-2
15	1209		9	9			0	0	0.4	2.0	1.6	16.9	0	0.45	Start: 1210
15			12												End: 1221
15			15												
15			18												



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-21 DATE: 8/9/22

Background: BKGD - 080922

Dupe: Dupe-10-2 P: 2.7 in H₂O
 ID: AS01473 P: 1.5 in H₂O
 Start: 0811 End: 0823
 8/10/22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (L/min)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3	-0.1			0.1	1.0	0.25	0	0	20.2	0	0	P: = 2.7 in H ₂ O
5	0850		0	0			0.5	1.0	0.25	3.6	0.4	18.0	0	0.45	P _c = 1.5 in H ₂ O
5	0853		3	3			0.5	1.0	0.25	3.1	0.4	17.2	0	0.45	CID: SC01807
5	0856		6	6			0.5	1.0	0.25	3.6	0.4	17.8	0	0.45	SID: SVMW-21-5 -2
5	0859		9	9			0.5	1.0	0.25	3.0	0.4 ¹⁰	17.2	0	0.45	Start: 0906
5	0902		12	12			0.5	1.0	0.25	3.0	0.4	17.8	0	0.45	End: 0917
5	0905		15	15			0.5	1.0	0.25	3.1	0.4	17.7	0	0.45	
5			18												
10			-3		-1.6		0	0	0.2	0	0	20.0	0	0	P: = 2.7 in H ₂ O
10	0926		0	0			0	0.5	0.2	12.2 ¹⁰	0.6	17.7	0	0.45	P _c = 1.5 in H ₂ O
10	0929		3	3			0	0.5	0.2	3.8	0.6	17.6	0	0.45	CID: AS01154
10	0932		6	6			0	0.5	0.2	3.8	0.6	17.6	0	0.45	SID: SVMW-21-10 -2
10	0935		9	9			0	0.5	0.2	3.7	0.6	17.5	0	0.45	Start: 0939
10	0938		12	12			0	0.5	0.2	3.7	0.6	17.5	0	0.45	End: 0950
10			15												
10			18												
15			-3			-0.25	0	0	0.2	0	0	19.8	0	0	P: = 2.7 in H ₂ O
15	0958		0	0			14.0 ¹⁰	0	1.75	14.0	0.8	17.5	0	0.45	P _c = 1.5 in H ₂ O
15	1001		3	3			0	0	1.5	5.0	0.8	17.5	0	0.45	CID: AS01484
15	1004		6	6			0	0	1.5	4.6	0.8	17.5	0	0.45	SID: SVMW-21-15 -2
15	1007		9	9			0	0	1.5	4.5	0.8	17.5	0	0.45	Start: 1008
15			12												End: 1018
15			15												
15			18												

O:1 on north bolt



SOIL VAPOR PURGING PARAMETERS
MONITORING POINT: SVMW-22 DATE: 8/8/22

Background: BKGD-080822

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (LPM)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3				0	0.25	0	0	0	180	0	0	P _i = 27.7 in Hg
5	1244		0				0.2	0.35	0	5.1	0.5	16.5	0	0.45	P _f = 1.5 in H ₂ O
5	1247		3				0.2	0.35	0	3.5	0.5	16.4	0	0.45	CID: ACO0747
5	1250		6				0.2	0.3	0	2.8	0.5	16.4	0	0.45	SED: SVMW-22-5-2
5	1253		9				0.2	0.3	0	2.3	0.5	16.4	0	0.45	Start: 1254
5			12												End: 1305
5			15												
5			18												
10			-3		0.25		0	0	0	0	0	18.1	0	0	P _i = 27.7 in Hg
10	1316		0				0	0.3	0	3.5	0.2	17.6	0	0.45	P _f = 1.5 in H ₂ O
10	1319		3				0	0.4	0	3.0	0.2	17.6	0	0.45	CID: ACO2475
10	1322		6				0	0.5	0	2.4	0.3	17.7	0	0.45	SED: SVMW-22-10-2
10	1325		9				0	0.5	0	1.8	0.3	17.6	0	0.45	Start: 1326
10			12												End: 1336
10			15												
10			18												
15			-3			0	0	0	0	0	0	18.7	0	0	P _i = 27.7 in Hg
15	1342 1342		0				0	0	0.7	3.4	0.5	17.3	0	0.45	P _f = 1.5 in Hg
15	1345		3				0	0	0.7	2.2	0.6	17.2	0	0.45	CID: 450752
15	1348		6				0	0	0.7	1.7	0.6	17.3	0	0.45	SED: SVMW-22-15-2
15	1351		9				0	0	0.7	1.5	0.6	17.3	0	0.45	Start: 1352
15			12												End: 1403
15			15												
15			18												



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SUMW-23 DATE: 8/8/22

Background: 080822

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Flow Rate (LPM)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe						
5			-3	-0.2			0.2	0.2	0	0.2	0	19.1	0.0	0	P ₀ = 27.2 in H ₂ O
5	0844		0				3.0	0.2	0	1.4	0.7	17.1	0	0.45	P _f = 3.0 in H ₂ O
5	0847		3				3.0	0.2	0	1.3	0.7	17.1	0	0.45	CID: ACO2013
5	0850		6				3.0	0.2	0	1.2	0.7	17.1	0	0.45	SID: SUMW-23-5-2
5	0853		9				3.0	0.2	0	1.1	0.7	17.1	0	0.45	Start: 0854
5			12												End: 0912
5			15												
5			18												
10			-3		-0.2		0	0	0	0	0	18.9	0	0	P _i = 25.0 in H ₂ O
10	0922		0				0	3.0	0	2.5	0.6	17.1	0	0.45	P _f = 3.0 in H ₂ O
10	0925		3				0	3.0	0.1	2.5	0.6	17.1	0	0.45	CID: ACO2503
10	0928		6				0	3.0	0.1	2.1	0.6	17.1	0	0.45	SID: SUMW-23-10-2
10	0931		9				0	3.0	0.1	1.9	0.6	17.1	0	0.45	Start: 0932
10			12												End: 0947
10			15												
10			18												
15			-3			0	0	0	0	0	0	18.9	0	0	P _i = 26.0 in H ₂ O
15	0956		0				0	0.1	3.0	2.0	0.4	17.5	0	0.45	P _f = 3.0 in H ₂ O
15	0959		3				0	6.1	3.0	1.9	0.4	17.5	0	0.45	CID: ACO2175
15	1002		6				0	0.1	3.0	1.8	0.4	17.5	0	0.45	SID: SUMW-23-15-2
15	1005		9				0	0.1	3.0	1.6	0.4	17.6	0	0.45	Start: 1004
15	1008		12				0	0.1	3.0	1.6	0.4	17.6	0	0.45	End: 1026
15			15												
15			18												

Duro: Dipe-15 P: 26 in H₂O
 ID: SSC00335 P_f: 3.0 in H₂O
 Start: 0809 End: 0824



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SJMW-16 DATE: 03-01-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1256	-3	/	0			0	0	0	1.5	0	21.4	0	P _i = 26.2 in Hg
5	1300	0	0				0	0	0	1.6	0.2	20.7	0	LPM = 0.5
5	1303	3	3				0	0	0	0.8	0.2	20.5	0	0.5 LPM
5	1306	6	6				0	0	0	1.0	0.2	20.4	0	0.5 LPM
5		9												
5		12												Sample Start 1308
5		15												Sample End 1321
5		18												P _o = 0.5 in H ₂ O
10	1327	-3	/		0		0	0	0	0.5	0	20.7	0	P _i = 24.5 in Hg
10	1330	0	0				0	0	0	0.0	0.2	20.0	0	0.5 LPM
10	1333	3	3				0	0	0	0.0	0.2	20.1	0	0.5 LPM
10	1336	6	6				0	0	0	0.1	0.2	20.0	0	0.5 LPM
10	1339	9	9				0	0	0	0.2	0.2	20.0	0	0.5 LPM
10		12												Sample Start: 1341
10		15												Sample End: 1352
10		18												P _o = 0.5 in H ₂ O
15	1359	-3	/			0	0	0	0	1.8	0	20.6	0	P _i = 25.5 in Hg
15	1400	0	0				0	0	0.5	0.6	0.2	20.1	0	0.5 LPM
15	1403	3	3				0	0	0.5	0.5	0.2	20.3	0	0.5 LPM
15	1406	6	6				0	0	0.5	0.8	0.2	20.4	0	0.5 LPM
15	1409	9	9				0	0	1.0	0.8	0.2	20.4	0	0.5 LPM
15	1412	12	12				0	0	1.0	0.8	0.2	20.4	0	0.5 LPM Sample Start 1419
15	1412 1415	15	15				0	0	1.0	0.9	0.2	20.3	0	0.5 LPM Sample End 1432
15		18												P _o = 1.0 in H ₂ O



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SV Mw-17 DATE: 03-01-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1445	-3	/	0			0	0	0	0.1	0	22.2	0	P _i = 29.5 in Hg
5	1447	0	0				1.0	0.02	0	0	0	21.8	0	0.5 LPM
5	1450	3	3				1.0	0	0	0.1	0	21.9	0	0.5 LPM
5	1453	6	6				0.5	0.01	0	0.3	0	21.9	0	0.5 LPM
5		9												
5		12												Sample Start: 1454
5		15												Sample End: 1506
5		18												P _o = 0.5 in H ₂ O
10	1511	-3	/		0		0	0	0	0.1	0	22.1	0	P _i = 25.5 in Hg
10	1512	0	0				0	0.5	0	0	0.1	22.1	0	0.5 LPM
10	1515	3	3				0	0	0	0.2	0.1	22.2	0	0.5 LPM
10	1518	6	6				0	0	0	0.4	0.1	22.2	0	0.5 LPM
10		9												
10		12												Sample Start: 1519
10		15												Sample End: 1532
10		18												P _o = 0.5 in H ₂ O
15	1538	-3	/			0	0	0	0	1.2	0	22.7	0	P _i = 25.5 in Hg
15	1539	0	0				0.02	0	2.0	0	0.2	21.9	0	0.5 LPM
15	1542	3	3				0	0	2.0	0.1	0.2	21.9	0	0.5 LPM
15	1545	6	6				0	0	2.0	0.3	0.2	21.9	0	0.5 LPM
15	1548	9	9				0	0	2.0	0.4	0.2	21.7	0	0.5 LPM
15	1551	12	12				0	0	2.0	0.4	0.2	21.7	0	0.5 LPM
15		15												Sample Start: 1553
15		18												Sample End: 1607
15														P _o = 1.0 in H ₂ O



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-18 DATE: 03-02-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	0948	-3	/	0			0	0.05	0.04	0.7	0.3	21.5	0.4	P _i = 25.7 Hg
5	0950	0	0				0	0.05	0.04	1.2	0.1	21.8	0	0.5 LPM
5	0953	3	3				0	0.02	0.04	1.0	0.1	21.8	0	0.5 LPM
5	0956	6	6				0	0.02	0.04	1.0	0.1	21.7	0	0.5 LPM
5		9												
5		12												Sample Start: 0957
5		15												Sample Stop: 1008
5		18												P _o = 0.5 in H ₂ O
10	1015	-3	/		-0.05		0	0	0.03	2.1	0.1	21.8	0	P _i = 25.7 Hg
10	1017	0	0				0	0	0.03	1.5	0.2	21.5	0	0.5 LPM
10	1020	3	3				0	0	0.02	0.7	0.2	21.4	0	0.5 LPM
10	1023	6	6				0	0	0.02	0.9	0.2	21.4	0	0.5 LPM
10	1026	9	9				0	0	0.02	1.0	0.2	21.4	0	0.5 LPM
10		12												Sample Start: 1027
10		15												Sample End: 1037
10		18												P _o = 0.5 in H ₂ O
15	1041	-3	/			-0.04	0	0	0	1.0	0.1	21.7	0	P _i = 25.7 Hg
15	1043	0	0				0	0	0	0.6	0.2	21.5	0	0.5 LPM
15	1046	3	3				0	0	0	0.3	0.3	21.2	0	0.5 LPM
15	1049	6	6				0	0	0	0.3	0.3	21.2	0	0.5 LPM
15		9												
15		12												Sample Start: 1050
15		15												Sample End: 1103
15		18												P _o = 0.5 in H ₂ O



SOIL VAPOR PURGING PARAMETERS

MONITORING POINT: SVMW-14 DATE: 03-02-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1114	-3	/	0			0	0	0	0.7	0.1	21.1	0	P _i = 25 in Hg
5	1117	0	0				0	0.5	0	1.2	0.1	20.4	0	0.5 LPM
5	1120	3	3				0	0.02	0	0.9	0.1	20.6	0	0.5 LPM 10-ft = 0.025 in H ₂ O
5	1123	6	6				0	0	0	0.8	0.1	20.4	0	0.5 LPM
5	1126	9	9				0	0	0	0.8	0.1	20.2	0	0.5 LPM
5		12												Sample Start 1127
5		15												Sample End 1138
5		18												P _o = 0.5 in H ₂ O
10	1142	-3	/		0		0	0	0	0.5	0	20.1	0	P _i = 25 in Hg
10	1143	0	0				0	0	0	2.0	0.1	19.7	0	0.5 LPM
10	1146	3	3				0.05	0	0	0.8	0.2	19.8	0	0.5 LPM
10	1149	6	6				0.05	0	0	0.9	0.2	19.7	0	0.5 LPM
10	1151	9	9				0.05	0	0	0.9	0.2	19.6	0	0.5 LPM
10		12												Sample Start 1153
10		15												Sample End 1204
10		18												P _o = 0.5 in H ₂ O
15	1211	-3	/			0	0	6	0	1.3	0	19.4	0	P _i = 25 in Hg
15	1212	0	0				0	0	0.5	0.7	0.2	19.4	0	0.5 LPM
15	1215	3	3				0	0	0.5	0.3	0.2	19.4	0	0.5 LPM
15	1218	6	6				0	0	0	0.5	0.2	19.4	0	0.5 LPM
15	1221	9	9				0	0	0	0.6	0.2	19.4	0	0.5 LPM
15	1224	12	12				0	0	0	0.7	0.2	19.5	0	0.5 LPM Sample Start 1231
15	1227	15	15				0	0	0	1.0	0.2	19.5	0	0.5 LPM Sample End: 1243
15	1230	18	18				0	0	0	0.7	0.2	19.5	0	0.5 LPM P _o = 0.5 in H ₂ O



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-20 DATE: 2-28-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1309	-3	/	0			0	0	0	1.5	0.1	21.6	0	P _i = 25.5 in Hg
5	1310	0	0				1.0	0	0.20	1.0	0.8	20.5	0	0.5 LPM
5	1313	3	3				1.0	0.01	0.25	1.0	0.8	20.4	0	0.5 LPM
5	1316	6	6				1.0	0	0.23	1.8	0.8	20.3	0	0.5 LPM
5	1319	9	9				1.0	0	0.20	1.3	0.8	20.2	0	0.5 LPM
5		12												Sample Start: 1322
5		15												Sample end: 1336
5		18												P _o = 1.5 in H ₂ O
10	1350	-3	/		0		0	0	0	1.4	0.1	21.6	0	P _o = 25.5 in Hg
10	1353	0	0				0	0.5	0.46	1.0	0.9	19.9	0	0.5 LPM
10	1356	3	3				0	0	0.38	1.2	0.9	19.7	0	0.5 LPM
10	1359	6	6				0	0	0.35	1.2	0.9	19.7	0	0.5 LPM
10	1402	9	9				0	0	0.34	1.2	0.9	19.6	0	0.5 LPM
10		12												Sample Start: 1406
10		15												Sample end: 1420
10		18												P _i = 0.5 in H ₂ O
15	1432	-3	/			0	0	1.35	0	0.9	0	21.1	0	P _o = 25.5 in Hg
15	1434	0	0				0	1.45	0	0.8	0.9	19.7	0	0.5 LPM
15	1437	3	3				0	1.45	0	0.9	0.9	19.6	0	0.5 LPM
15	1440	6	6				0	1.40	0	0.9	0.9	19.5	0	0.5 LPM
15	1443	9	9				0	1.40	0	1.2	0.9	19.4	0	0.5 LPM
15		12												Sample Start: 1447
15		15												Sample end: 1457
15		18												P _i = 0.75 in H ₂ O



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVW-21 DATE: 2-28-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1520	-3	/	0			0	0	0	0.5	0	21.4	0	P _i = 25.5 in Hg
5	1524	0	0				0	0	0	0.3	0.1	19.9	0	0.5 LPM
5	1527	3	3				0	0	0	0	0.1	19.9	0	0.5 LPM
5	1530	6	6				0	0	0	0	0.1	19.8	0	0.5 LPM
5	1533	9	9				0	0	0	0	0.1	19.7	0	0.5 LPM
5	1536	12	12				0	0	0	0	0.1	19.6	0	0.5 LPM
5		15												Sample Start: 1539
5		18												Sample End: 1551
														P _o = 0.5 in H ₂ O
10	1602	-3	/		0		0	0	0	0	0	20.9	0	P _i = 25 in Hg
10	1604	0	0				0	0	0	0.3	0.2	19.3	0	0.5 LPM
10	1607	3	3				0	0	0	0.4	0.2	19.5	0	0.5 LPM
10	1609	6	6				0.1	0	0	0.4	0.2	19.5	0	0.5 LPM
10	1612	9	9				0.2	0	0	0.4	0.2	19.6	0	0.5 LPM
10		12												Sample Start: 1616
10		15												Sample End: 1628
10		18												P _o = 0.5 in H ₂ O
15	1635	-3	/			0	0	0	0	0	0	21.6	0	P _i = 26 in Hg
15	1639	0	0				0	0	0	0	0.4	19.6	0	0.5 LPM
15	1642	3	3				0	0	10	0	0.5	19.7	0	0.5 LPM
15	1645	6	6				0	0	0	0.1	0.5	19.7	0	0.5 LPM
15	1648	9	9				0	0	0	0.1	0.5	19.8	0	0.5 LPM
15		12												Sample Start: 1650
15		15												Sample End: 1702
15		18												P _o = 1.0 in H ₂ O



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-22 DATE: 03/01/22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1030	-3	/	0			0	0.34	0	1.0	0.1	20.6	0	P _i = 25.5 in Hg
5	1032	0	0				0	0.40	0.20	0.9	0.4	19.6	0	0.5 LPM
5	1035	3	3				0	0.31	0.15	0.9	0.4	19.2	0	0.5 LPM
5	1038	6	6				0	0.33	0.15	0.8	0.3	19.0	0	0.5 LPM
5		9												Sample Start 1040
5		12												Sample end 1052
5		15												P _o = 0.5 in H ₂ O
5		18												
10	1102	-3	/		0.34		0	0	0.15	1.6	0.1	20.2	0	P _i = 25.5 in Hg
10	1105	0	0				0	0	0.15	0.9	0.4	19.2	0	0.5 LPM
10	1108	3	3				0	0	0.15	0.4	0.4	18.9	0	0.5 LPM
10	1111	6	6				0	0	0.15	0.3	0.4	18.8	0	0.5 LPM
10	1114	9	9				0	0	0.12	0.3	0.4	18.6	0	0.5 LPM
10		12												Sample Start: 1116
10		15												Sample End: 1130
10		18												P _o = 0.5 in Hg
15	1143	-3	/			0	0	0	0	1.2	0	20.0	0	P _i = 25.5 in Hg
15	1145	0	0				0	0.25	1.0	0.3	0.4	18.9	0	0.5 LPM
15	1148	3	3				0	0.25	0	0.1	0.4	18.9	0	0.5 LPM
15	1151	6	6				0	0.5	0.5	0.1	0.4	18.8	0	0.5 LPM
15	1154	9	9				0	0.5	0.5	0.1	0.4	18.8	0	0.5 LPM
15		12												Sample Start: 1156
15		15												Sample End 1206
15		18												P _o = 1.0 in H ₂ O



SOIL VAPOR PURGING PARAMETERS
 MONITORING POINT: SVMW-23 DATE: 2-28-22

Probe Depth (ft)	Time	Elapsed Purge Time (min)	Purge Duration (min)	Pre-Purge Ambient Well Pressure (Inches H ₂ O)			Induced Vacuum During Well Purge (Inches H ₂ O)			PID (ppm)	CO ₂ (%)	O ₂ (%)	CH ₄ (%)	Comments
				5 ft Probe	10 ft Probe	15 ft Probe	5 ft Probe	10 ft Probe	15 ft Probe					
5	1033	-3	/	0			0	0.06	0	1.4	0.1	21.5	0	
5	1036	0	0				1.0	0.86	0.6	1.8	0.2	20.9	0	0.5 LPM
5	1039	3	3				0.75	0.78	0.5	1.9	0.2	20.9	0	0.5 LPM
5	1042	6	6				0.9	0.74	0.5	1.5	0.2	20.9	0	0.5 LPM
5		9												
5		12												Sample Start: 1044
5		15												Sample End: 1058
5		18												
10	1115	-3	/		-0.06		0.01	0	0	1.6	0.1	21.8	0	P ₀ = 26 in H ₂ O
10	1120	0	0				0.71	1.0	0.60	1.4	0.2	21.1	0	0.5 LPM
10	1123	3	3				0.72	1.0	0.62	1.4	0.2	20.8	0	0.5 LPM
10	1126	6	6				0.72	1.0	0.60	1.9	0.2	20.2	0	0.5 LPM
10	1129	9	9				0.72	1.0	0.65	1.5	0.2	20.7	0	0.5 LPM
10		12												
10		15												Sample Start: 1131
10		18												Sample End: 1143
15	1155	-3	/			0	0	0	0	1.2	0	21.2	0	P ₀ = 1.0 in H ₂ O
15	1157	0	0				0.5	0.6	1.0	1.0	0.2	20.2	0	P ₀ = 25.5 in H ₂ O
15	1200	3	3				0.65	0.67	1.0	1.1	0.2	20.2	0	0.5 LPM
15	1203	6	6				0.5	0.68	1.0	1.1	0.1	20.2	0	0.5 LPM
15	1206	9	9				0.5	0.64	1.0	1.1	0.1	20.3	0	0.5 LPM
15	1209	12	12				0.5	0.63	2.0	1.2	0.1	20.4	0	0.5 LPM
15		15												Sample Start: 1211
15		18												Sample End: 1224
15														P ₀ = 1.5 in H ₂ O

Gas Detector Calibration Log

Project Name: KAFB BFF Soil Vapor Sampling Date: February 28, 2022

Parkhill Project Number: 01.4599.22 Sampler: TSZ

Daily Claibration

Time: 9:45

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 5000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Mid-Day Claibration Check

Time: 13:01

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 5000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Sampler: Tyler Zack

Signature: 

Gas Detector Calibration Log

Project Name: KAFB BFF Soil Vapor Sampling Date: March 1, 2022
Parkhill Project Number: 01.4599.22 Sampler: TSZ

Daily Claibration

Time: 8:54

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 5000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Mid-Day Claibration Check

Time: 12:52

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 5000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Sampler: Tyler Zack

Signature: 

Gas Detector Calibration Log

Project Name: KAFB BFF Soil Vapor Sampling Date: March 2, 2022

Parkhill Project Number: 01.4599.22 Sampler: TSZ

Daily Claibration

Time: 8:50

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 5000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Mid-Day Claibration Check

Time: 11:10

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 5000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Sampler: Tyler Zack

Signature: 

Gas Detector Calibration Log

Project Name: KAFB BFF Soil Vapor Sampling Date: August 8, 2022

Parkhill Project Number: 01.4599.22 Sampler: TSZ

Daily Claibration

Time: 8:05

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 2000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Mid-Day Claibration Check

Time: 12:35

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 2000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Sampler: Tyler Zack

Signature: 

Gas Detector Calibration Log

Project Name: KAFB BFF Soil Vapor Sampling Date: August 9, 2022

Parkhill Project Number: 01.4599.22 Sampler: TSZ

Daily Claibration

Time: 7:50

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 2000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Mid-Day Claibration Check

Time: 12:41

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 2000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Sampler: Tyler Zack

Signature: 

Gas Detector Calibration Log

Project Name: KAFB BFF Soil Vapor Sampling Date: August 10, 2022

Parkhill Project Number: 01.4599.22 Sampler: TSZ

Daily Claibration

Time: 7:55


Instrument	Calibration Gas	Calibrated Measurement
GEM™ 2000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Mid-Day Claibration Check

Time: 10:37

Instrument	Calibration Gas	Calibrated Measurement
GEM™ 2000	50% CH ₄	50%
	35% CO ₂	35%
	4% O ₂	4%
PID	100 ppm Isobutylene	100 ppm
	Zero Air (0 ppm Isobutylene)	0 ppm

Sampler: Tyler Zack

Signature: 



2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

September 7, 2022

Jessie Moore
HazAir
1717 Louisiana Blvd. NE, Ste. 116
Albuquerque, NM 87110

RE: BFF

Dear Jessie:

Enclosed are the results of the samples submitted to our laboratory on March 1, 2022. Sample BKGD-022822 (P2200921-009) was sent out for analysis to Atmospheric Analysis & Consulting, Inc. Please find their report (Project No.: 20612-33) attached. For your reference, these analyses have been assigned our service request number P2200921.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

10:47 pm, Sep 07, 2022

Sue Anderson
Project Manager



Client: HazAir
Project: BFF

Service Request No: P2200921

CASE NARRATIVE

The samples were received intact under chain of custody on March 1, 2022 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

Volatile Organic Compound Analysis

The samples were analyzed in scan and SIM modes for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The upper surrogate control criterion was exceeded in SVMW-20-5 (P2200921-001) due to matrix interference. The presence of non-target background components prevented adequate resolution of the surrogate; therefore, accurate quantitation was not possible. The target analytes and surrogate recoveries for the associated QC were acceptable. The associated data has been flagged with the appropriate data qualifiers. No further corrective action was appropriate.

Additionally, the response for the 3rd internal standard, Chlorobenzene-d5 in sample SVMW-23-15 (P2200921-004) was outside the control criterion because of suspected matrix interference. The sample was diluted in an attempt to eliminate the effects of the matrix interference. The results are reported from the dilution; therefore, the associated method reporting limits have been elevated accordingly.



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Client: HazAir
Project: BFF

Service Request No: P2200921

CASE NARRATIVE

Manual integrations were performed on the following sample(s) and analyte(s). Refer to the raw data for additional information.

Sample Identification	Analyte
P2200921-001	Naphthalene

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.3 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413- 19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA01627201 9-10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: HazAir
 Project ID: BFF

Service Request: P2200921

Date Received: 3/1/2022
 Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	2nd Pi (psig)	2nd Pf (psig)	TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM	ASTM D1946 - Sub-out to AtmAA
SVMW-20-5	P2200921-001	Air	2/28/2022	13:22	AS01435	-1.97	4.15			X	X	X	
SVMW-23-5	P2200921-002	Air	2/28/2022	10:44	AC02113	-1.65	3.95			X	X	X	
SVMW-23-10	P2200921-003	Air	2/28/2022	11:31	AC02405	-1.82	4.08			X	X	X	
SVMW-23-15	P2200921-004	Air	2/28/2022	12:24	AS01390	-1.83	3.91	-3.01	2.09	X	X	X	
SVMW-20-10	P2200921-005	Air	2/28/2022	14:06	AS00799	-1.97	3.81			X	X	X	
SVMW-20-15	P2200921-006	Air	2/28/2022	14:47	AC02303	-2.09	3.86			X	X	X	
SVMW-21-15	P2200921-007	Air	2/28/2022	15:39	SSC00129	-2.22	3.93			X	X	X	
SVMW-21-10	P2200921-008	Air	2/28/2022	16:16	AC02424	-2.32	4.10			X	X	X	
SVMW-21-15	P2200921-009	Air	2/28/2022	16:50	AS00979	-2.12	3.92			X	X	X	
BKGD-022822	P2200921-010	Air	2/28/2022	10:10	AS01344	-2.12	3.92						X



Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
 Simi Valley, California 93065
 Phone (805) 526-7161

Company Name & Address (Reporting Information)		Requested Turnaround Time in Business Days (Surcharges) please circle		ALS Project No.						
THREAT		1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard		996021						
Project Manager		Project Name		ALS Contact:						
Darryl Taylor		BFF								
Phone (805) 702-13032		Project Number		Analysis Method						
Fax		P.O. # / Billing Information		T-1551M/70-3						
Email Address for Result Reporting		Sampler (Print & Sign)		Comments						
jessie.moore@threat.com		Jessie Moore		e.g. Actual Preservative or specific instructions						
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method	Comments
SVMW-20-5	1	2/20/22	1322	AS01435	N/A	-25.5	-2.0	UL	X	See Box A
SVMW-23-5	2	2/20/22	1044	AC02113	N/A	-20	-1.9	UL	X	See Box A
SVMW-23-10	3	2/20/22	1131	AC02405	N/A	-20	-1.9	UL	X	See Box A
SVMW-23-15	4	2/20/22	1224	AS01390	N/A	-25.5	-2.0	UL	X	See Box A
SVMW-20-10	5	2/20/22	1400	AS00799	N/A	-25.5	-0.9	UL	X	See Box B
SVMW-20-15	6	2/20/22	1457	AC02303	N/A	-25.5	-1.9	UL	X	See Box B
SVMW-21-5	7	2/20/22	1539	SS00129	N/A	-25.5	-0.9	UL	X	See Box B
SVMW-21-10	8	2/20/22	1610	AC02424	N/A	-25	-0.9	UL	X	See Box B
SVMW-21-15	9	2/20/22	1650	AS00979	N/A	-20	-1.9	UL	X	See Box C
BKGD-022822	10	2/20/22	1010	AS01344	SFC00233	-20	-9.5	UL	X	ASTM ONLY (See Box C)
BOX C contains 9 unused flow controllers										

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____
 Tier II (Results + QC Summaries) _____
 Tier III (Results + QC & Calibration Summaries) _____
 Tier IV (Data Validation Package) 10% Surcharge _____

EDD required Yes / No _____ Units: _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Relinquished by: (Signature) _____ Date: 2/20/22 Time: 5:30 pm

Relinquished by: (Signature) JESSIE MOORE Date: 2/20/22 Time: 5:30 pm

Received by: (Signature) _____ Date: 3-15-22 Time: 0930

Received by: (Signature) _____ Date: _____ Time: _____

Project Requirements (MRLs, QAPP) _____

Cooler / Blank Temperature _____ °C

**ALS Environmental
Sample Acceptance Check Form**

Client: HazAir Work order: P2200921
 Project: BFF
 Sample(s) received on: 3/1/22 Date opened: 3/1/22 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2200921-001.01	6.0 L Silonite Can					
P2200921-002.01	6.0 L Ambient Can					
P2200921-003.01	6.0 L Ambient Can					
P2200921-004.01	6.0 L Silonite Can					
P2200921-005.01	6.0 L Silonite Can					
P2200921-006.01	6.0 L Ambient Can					
P2200921-007.01	6.0 L Silonite Can					
P2200921-008.01	6.0 L Ambient Can					
P2200921-009.01	6.0 L Silonite Can					
P2200921-010.02	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/2/22

Client Sample ID	ALS Sample ID	Container Dilution Factor	Injection Volume ml(s)	Result mg/m ³	LOQ mg/m ³	LOD mg/m ³	MDL mg/m ³	Data Qualifier
SVMW-20-5	P2200921-001	1.48	1.0	4.3	27	4.3	1.3	U
SVMW-23-5	P2200921-002	1.43	1.0	4.1	26	4.1	1.3	U
SVMW-23-10	P2200921-003	1.46	1.0	4.2	26	4.2	1.3	U
SVMW-23-15	P2200921-004	1.45	1.0	4.2	26	4.2	1.3	U
SVMW-20-10	P2200921-005	1.45	1.0	4.2	26	4.2	1.3	U
SVMW-20-15	P2200921-006	1.47	1.0	4.3	26	4.3	1.3	U
SVMW-21-15	P2200921-007	1.49	1.0	4.3	27	4.3	1.4	U
SVMW-21-10	P2200921-008	1.52	1.0	4.4	27	4.4	1.4	U
SVMW-21-15	P2200921-009	1.48	1.0	4.3	27	4.3	1.3	U
Method Blank	P220302-MB	1.00	1.0	2.9	18	2.9	0.91	U

Parts Per Million results are based on a Molecular Weight of 86.18.

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220302-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/2/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result		% Recovery		ALS	RPD	RPD	Data
	LCS / DLCS	LCS	DLCS	LCS	DLCS	Acceptance	RPD	RPD	Data	
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits		Limit	Qualifier	
TPH as Gasoline	7,190	6,440	6,610	90	92	89-124	2	14		

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 03022203.D
Date Analyzed: 3/2/22
Time Analyzed: 07:47

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220302-LCS	03022204.D	08:05
Duplicate Lab Control Sample	P220302-DLCS	03022205.D	08:40
SVMW-20-5	P2200921-001	03022210.D	12:04
SVMW-23-5	P2200921-002	03022211.D	12:30
SVMW-23-10	P2200921-003	03022212.D	13:02
SVMW-23-15	P2200921-004	03022213.D	13:20
SVMW-20-10	P2200921-005	03022214.D	13:48
SVMW-20-15	P2200921-006	03022215.D	14:08
SVMW-21-15	P2200921-007	03022217.D	14:58
SVMW-21-10	P2200921-008	03022218.D	15:15
SVMW-21-15	P2200921-009	03022219.D	15:33

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-20-5
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01435

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/14/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.97 Final Pressure (psig): 4.15

Container Dilution Factor: 1.48

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	4.0	0.78	0.46	0.16	
110-82-7	Cyclohexane	7.9	1.6	0.49	0.22	
142-82-5	n-Heptane	3.0	0.78	0.46	0.13	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-23-5
Client Project ID: BFF

ALS Project ID: P2200921
ALS Sample ID: P2200921-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Topacio Zavala
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC02113

Date Collected: 2/28/22
Date Received: 3/1/22
Date Analyzed: 3/14/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.65 Final Pressure (psig): 3.95

Container Dilution Factor: 1.43

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	2.1	0.76	0.44	0.16	
110-82-7	Cyclohexane	4.3	1.6	0.47	0.21	
142-82-5	n-Heptane	1.6	0.76	0.44	0.12	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-23-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02405

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/14/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.82 Final Pressure (psig): 4.08

Container Dilution Factor: 1.46

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	1.7	0.77	0.45	0.16	
110-82-7	Cyclohexane	3.3	1.6	0.48	0.22	
142-82-5	n-Heptane	1.1	0.77	0.45	0.12	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-23-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01390

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/14/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.83 Final Pressure (psig): 3.91
 Initial Pressure 2 (psig): -3.01 Final Pressure 2 (psig): 2.09

Container Dilution Factor: 2.08

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	2.0	1.1	0.64	0.23	
110-82-7	Cyclohexane	3.8	2.3	0.69	0.31	
142-82-5	n-Heptane	1.4	1.1	0.64	0.18	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-20-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00799

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/14/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.97 Final Pressure (psig): 3.81

Container Dilution Factor: 1.45

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	4.4	0.77	0.45	0.16	
110-82-7	Cyclohexane	8.0	1.6	0.48	0.22	
142-82-5	n-Heptane	3.3	0.77	0.45	0.12	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-15
Client Project ID: BFF

ALS Project ID: P2200921
ALS Sample ID: P2200921-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Topacio Zavala
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC02303

Date Collected: 2/28/22
Date Received: 3/1/22
Date Analyzed: 3/14/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.09

Final Pressure (psig): 3.86

Container Dilution Factor: 1.47

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	2.4	0.78	0.46	0.16	
110-82-7	Cyclohexane	4.2	1.6	0.49	0.22	
142-82-5	n-Heptane	1.7	0.78	0.46	0.12	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00129

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/14/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.93

Container Dilution Factor: 1.49

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	3.5	0.79	0.46	0.16	
110-82-7	Cyclohexane	5.9	1.6	0.49	0.22	
142-82-5	n-Heptane	2.5	0.79	0.46	0.13	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-10
Client Project ID: BFF

ALS Project ID: P2200921
ALS Sample ID: P2200921-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Topacio Zavala
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC02424

Date Collected: 2/28/22
Date Received: 3/1/22
Date Analyzed: 3/14/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.32 Final Pressure (psig): 4.10

Container Dilution Factor: 1.52

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	3.2	0.81	0.47	0.17	
110-82-7	Cyclohexane	5.9	1.7	0.50	0.23	
142-82-5	n-Heptane	2.5	0.81	0.47	0.13	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-21-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-009

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00979

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/15/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.12 Final Pressure (psig): 3.92

Container Dilution Factor: 1.48

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	1.6	0.78	0.46	0.16	
110-82-7	Cyclohexane	3.0	1.6	0.49	0.22	
142-82-5	n-Heptane	1.2	0.78	0.46	0.13	

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200921
ALS Sample ID: P220314-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Topacio Zavala
Sampling Media: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/14/22
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 2/28/22
 Date(s) Received: 3/1/22
 Date(s) Analyzed: 3/14 - 3/15/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P220314-MB	101	104	91	70-130	
Lab Control Sample	P220314-LCS	104	100	95	70-130	
Duplicate Lab Control Sample	P220314-DLCS	103	100	97	70-130	
SVMW-20-5	P2200921-001	89	103	109	70-130	
SVMW-23-5	P2200921-002	91	100	105	70-130	
SVMW-23-10	P2200921-003	91	100	106	70-130	
SVMW-23-15	P2200921-004	92	100	107	70-130	
SVMW-20-10	P2200921-005	87	98	105	70-130	
SVMW-20-15	P2200921-006	92	99	104	70-130	
SVMW-21-15	P2200921-007	92	99	102	70-130	
SVMW-21-10	P2200921-008	93	99	103	70-130	
SVMW-21-15	P2200921-009	91	100	105	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220314-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/14/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	208	214	212	103	102	63-120	1	25	
110-82-7	Cyclohexane	412	397	397	96	96	70-117	0	25	
142-82-5	n-Heptane	206	203	203	99	99	69-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Topacio Zavala
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03142206.D
Date Analyzed: 3/14/22
Time Analyzed: 10:52

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220314-LCS	03142207.D	11:26
Duplicate Lab Control Sample	P220314-DLCS	03142208.D	11:59
SVMW-20-5	P2200921-001	03142220.D	19:46
SVMW-23-5	P2200921-002	03142221.D	20:20
SVMW-23-10	P2200921-003	03142222.D	20:54
SVMW-23-15	P2200921-004	03142223.D	21:28
SVMW-20-10	P2200921-005	03142224.D	22:02
SVMW-20-15	P2200921-006	03142225.D	22:36
SVMW-21-15	P2200921-007	03142226.D	23:11
SVMW-21-10	P2200921-008	03142227.D	23:46
SVMW-21-15	P2200921-009	03142228.D	00:19

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 03142205.D
 Date Analyzed: 3/14/22
 Time Analyzed: 09:44

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	121644	11.34	563172	13.45	102575	17.75
Upper Limit	170302	11.67	788441	13.78	143605	18.08
Lower Limit	72986	11.01	337903	13.12	61545	17.42

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	116490	11.32	534021	13.44	95252	17.75
02	Lab Control Sample	124663	11.34	571632	13.45	107281	17.75
03	Duplicate Lab Control Sample	128704	11.34	590478	13.45	109555	17.75
04	SVMW-20-5	133731	11.32	611356	13.44	109735	17.75
05	SVMW-23-5	133482	11.32	607226	13.44	112329	17.75
06	SVMW-23-10	133613	11.32	613241	13.44	112304	17.75
07	SVMW-23-15	134556	11.32	613870	13.44	113447	17.75
08	SVMW-20-10	133909	11.32	614451	13.44	116124	17.75
09	SVMW-20-15	130079	11.31	598072	13.44	112123	17.75
10	SVMW-21-15	125386	11.32	571943	13.44	108697	17.75
11	SVMW-21-10	126563	11.32	577131	13.44	108815	17.75
12	SVMW-21-15	129400	11.31	591958	13.44	109996	17.75
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area

AREA LOWER LIMIT = 60% of internal standard area

RT UPPER LIMIT = 0.33 minutes of internal standard RT

RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-5
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01435

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.97 Final Pressure (psig): 4.15

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.7	0.074	0.062	0.013	
74-87-3	Chloromethane	0.062	0.074	0.062	0.038	U
75-01-4	Vinyl Chloride	0.033	0.037	0.033	0.018	U
106-99-0	1,3-Butadiene	0.062	0.074	0.062	0.012	U
74-83-9	Bromomethane	0.033	0.037	0.033	0.0099	U
75-00-3	Chloroethane	0.013	0.037	0.033	0.012	J
107-02-8	Acrolein	0.11	0.30	0.15	0.052	J
67-64-1	Acetone	1.6	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	0.86	0.074	0.062	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.14	0.15	0.062	0.012	J, B
76-13-1	Trichlorotrifluoroethane	0.38	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.033	0.037	0.033	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.033	0.037	0.033	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.77	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.037	0.033	0.012	U
71-55-6	1,1,1-Trichloroethane	0.031	0.037	0.031	0.013	U
71-43-2	Benzene	0.12	0.11	0.062	0.022	
56-23-5	Carbon Tetrachloride	0.14	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.016	0.037	0.033	0.0090	J
75-27-4	Bromodichloromethane	0.031	0.037	0.033	0.0086	J
79-01-6	Trichloroethene	0.11	0.037	0.031	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-5
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01435

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.97 Final Pressure (psig): 4.15

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.074	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.074	0.031	0.0071	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0087	U
108-88-3	Toluene	0.84	0.15	0.064	0.018	
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0099	U
127-18-4	Tetrachloroethene	0.13	0.037	0.031	0.024	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.13	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.43	0.15	0.064	0.036	
100-42-5	Styrene	0.052	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.22	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.046	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.16	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.074	0.064	0.030	U
91-20-3	Naphthalene	0.061	0.15	0.061	0.033	U
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-5
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02113

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.65 Final Pressure (psig): 3.95

Container Dilution Factor: 1.43

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	3.1	0.072	0.060	0.012	
74-87-3	Chloromethane	0.060	0.072	0.060	0.037	U
75-01-4	Vinyl Chloride	0.031	0.036	0.031	0.017	U
106-99-0	1,3-Butadiene	0.060	0.072	0.060	0.011	U
74-83-9	Bromomethane	0.036	0.036	0.031	0.0096	
75-00-3	Chloroethane	0.031	0.036	0.031	0.011	U
107-02-8	Acrolein	0.31	0.29	0.14	0.050	
67-64-1	Acetone	3.3	3.6	0.16	0.33	J
75-69-4	Trichlorofluoromethane	2.1	0.072	0.060	0.012	
75-35-4	1,1-Dichloroethene	0.031	0.036	0.031	0.013	U
75-09-2	Methylene Chloride	0.13	0.14	0.060	0.011	J, B
76-13-1	Trichlorotrifluoroethane	0.37	0.036	0.031	0.012	
156-60-5	trans-1,2-Dichloroethene	0.031	0.036	0.031	0.016	U
75-34-3	1,1-Dichloroethane	0.016	0.036	0.031	0.012	J
1634-04-4	Methyl tert-Butyl Ether	0.031	0.036	0.031	0.017	U
156-59-2	cis-1,2-Dichloroethene	0.030	0.036	0.030	0.010	U
67-66-3	Chloroform	0.079	0.14	0.061	0.011	J
107-06-2	1,2-Dichloroethane	0.031	0.036	0.031	0.012	U
71-55-6	1,1,1-Trichloroethane	0.030	0.036	0.030	0.013	U
71-43-2	Benzene	0.077	0.11	0.060	0.021	J
56-23-5	Carbon Tetrachloride	0.086	0.036	0.030	0.010	
78-87-5	1,2-Dichloropropane	0.047	0.036	0.031	0.0087	
75-27-4	Bromodichloromethane	0.031	0.036	0.031	0.0083	U
79-01-6	Trichloroethene	0.31	0.036	0.030	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

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Client: HazAir
Client Sample ID: SVMW-23-5
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02113

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.65 Final Pressure (psig): 3.95

Container Dilution Factor: 1.43

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.031	0.14	0.031	0.012	U
10061-01-5	cis-1,3-Dichloropropene	0.030	0.072	0.030	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.030	0.072	0.030	0.0069	U
79-00-5	1,1,2-Trichloroethane	0.030	0.14	0.030	0.0084	U
108-88-3	Toluene	1.2	0.14	0.061	0.017	
124-48-1	Dibromochloromethane	0.020	0.036	0.030	0.0092	J
106-93-4	1,2-Dibromoethane	0.030	0.036	0.030	0.0096	U
127-18-4	Tetrachloroethene	0.21	0.036	0.030	0.023	
108-90-7	Chlorobenzene	0.030	0.14	0.030	0.014	U
100-41-4	Ethylbenzene	0.27	0.14	0.030	0.017	
179601-23-1	m,p-Xylenes	0.81	0.14	0.061	0.034	
100-42-5	Styrene	0.18	0.14	0.030	0.017	
95-47-6	o-Xylene	0.47	0.14	0.030	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.030	0.036	0.030	0.012	U
108-67-8	1,3,5-Trimethylbenzene	0.073	0.14	0.030	0.020	J
95-63-6	1,2,4-Trimethylbenzene	0.20	0.14	0.030	0.023	
541-73-1	1,3-Dichlorobenzene	0.030	0.036	0.030	0.024	U
106-46-7	1,4-Dichlorobenzene	0.032	0.036	0.030	0.029	J
95-50-1	1,2-Dichlorobenzene	0.030	0.036	0.030	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.030	0.14	0.030	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.061	0.072	0.061	0.029	U
91-20-3	Naphthalene	0.22	0.14	0.059	0.031	
87-68-3	Hexachlorobutadiene	0.030	0.14	0.030	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-23-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02405

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.82 Final Pressure (psig): 4.08

Container Dilution Factor: 1.46

CAS #	Compound	Result	LOQ	LOD	MDL	Data
		µg/m ³	µg/m ³	µg/m ³	µg/m ³	Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	3.3	0.073	0.061	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.032	0.037	0.032	0.018	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.012	U
74-83-9	Bromomethane	0.013	0.037	0.032	0.0098	J
75-00-3	Chloroethane	0.032	0.037	0.032	0.011	U
107-02-8	Acrolein	0.092	0.29	0.15	0.051	J
67-64-1	Acetone	1.6	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	2.2	0.073	0.061	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.037	0.032	0.013	U
75-09-2	Methylene Chloride	0.10	0.15	0.061	0.011	J, B
76-13-1	Trichlorotrifluoroethane	0.38	0.037	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.037	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.037	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.037	0.032	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.11	0.15	0.063	0.012	J
107-06-2	1,2-Dichloroethane	0.027	0.037	0.032	0.012	J
71-55-6	1,1,1-Trichloroethane	0.031	0.037	0.031	0.013	U
71-43-2	Benzene	0.093	0.11	0.061	0.022	J
56-23-5	Carbon Tetrachloride	0.12	0.037	0.031	0.010	
78-87-5	1,2-Dichloropropane	0.069	0.037	0.032	0.0089	
75-27-4	Bromodichloromethane	0.032	0.037	0.032	0.0085	U
79-01-6	Trichloroethene	0.18	0.037	0.031	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02405

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.82 Final Pressure (psig): 4.08

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.032	0.15	0.032	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.073	0.031	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.073	0.031	0.0070	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0086	U
108-88-3	Toluene	0.97	0.15	0.063	0.018	
124-48-1	Dibromochloromethane	0.013	0.037	0.031	0.0093	J
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0098	U
127-18-4	Tetrachloroethene	0.39	0.037	0.031	0.023	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.20	0.15	0.031	0.018	
179601-23-1	m,p-Xylenes	0.63	0.15	0.063	0.035	
100-42-5	Styrene	0.14	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.37	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.064	0.15	0.031	0.020	J
95-63-6	1,2,4-Trimethylbenzene	0.19	0.15	0.031	0.023	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.041	0.037	0.031	0.029	
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.063	0.073	0.063	0.029	U
91-20-3	Naphthalene	0.14	0.15	0.060	0.032	J
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01390

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -1.83 Final Pressure (psig): 3.91

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	3.8	0.097	0.081	0.016	
74-87-3	Chloromethane	0.081	0.097	0.081	0.050	U
75-01-4	Vinyl Chloride	0.043	0.048	0.043	0.023	U
106-99-0	1,3-Butadiene	0.081	0.097	0.081	0.015	U
74-83-9	Bromomethane	0.021	0.048	0.043	0.013	J
75-00-3	Chloroethane	0.026	0.048	0.043	0.015	J
107-02-8	Acrolein	0.10	0.39	0.19	0.068	J
67-64-1	Acetone	1.7	4.8	0.21	0.44	J
75-69-4	Trichlorofluoromethane	2.8	0.097	0.081	0.016	
75-35-4	1,1-Dichloroethene	0.043	0.048	0.043	0.017	U
75-09-2	Methylene Chloride	0.30	0.19	0.081	0.015	
76-13-1	Trichlorotrifluoroethane	0.41	0.048	0.043	0.016	
156-60-5	trans-1,2-Dichloroethene	0.043	0.048	0.043	0.021	U
75-34-3	1,1-Dichloroethane	0.043	0.048	0.043	0.016	U
1634-04-4	Methyl tert-Butyl Ether	0.061	0.048	0.043	0.023	
156-59-2	cis-1,2-Dichloroethene	0.041	0.048	0.041	0.014	U
67-66-3	Chloroform	0.45	0.19	0.083	0.015	
107-06-2	1,2-Dichloroethane	0.12	0.048	0.043	0.016	
71-55-6	1,1,1-Trichloroethane	0.041	0.048	0.041	0.017	U
71-43-2	Benzene	0.37	0.15	0.081	0.029	
56-23-5	Carbon Tetrachloride	0.28	0.048	0.041	0.014	
78-87-5	1,2-Dichloropropane	0.21	0.048	0.043	0.012	
75-27-4	Bromodichloromethane	0.043	0.048	0.043	0.011	U
79-01-6	Trichloroethene	0.21	0.048	0.041	0.015	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01390

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -1.83 Final Pressure (psig): 3.91

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.043	0.19	0.043	0.017	U
10061-01-5	cis-1,3-Dichloropropene	0.041	0.097	0.041	0.014	U
10061-02-6	trans-1,3-Dichloropropene	0.041	0.097	0.041	0.0093	U
79-00-5	1,1,2-Trichloroethane	0.041	0.19	0.041	0.011	U
108-88-3	Toluene	2.0	0.19	0.083	0.023	
124-48-1	Dibromochloromethane	0.022	0.048	0.041	0.012	J
106-93-4	1,2-Dibromoethane	0.041	0.048	0.041	0.013	U
127-18-4	Tetrachloroethene	2.0	0.048	0.041	0.031	
108-90-7	Chlorobenzene	0.041	0.19	0.041	0.019	U
100-41-4	Ethylbenzene	0.53	0.19	0.041	0.023	
179601-23-1	m,p-Xylenes	1.5	0.19	0.083	0.046	
100-42-5	Styrene	0.14	0.19	0.041	0.023	J
95-47-6	o-Xylene	1.5	0.19	0.041	0.025	
79-34-5	1,1,1,2-Tetrachloroethane	0.041	0.048	0.041	0.017	U
108-67-8	1,3,5-Trimethylbenzene	0.063	0.19	0.041	0.027	J
95-63-6	1,2,4-Trimethylbenzene	0.73	0.19	0.041	0.031	
541-73-1	1,3-Dichlorobenzene	0.041	0.048	0.041	0.033	U
106-46-7	1,4-Dichlorobenzene	0.098	0.048	0.041	0.039	
95-50-1	1,2-Dichlorobenzene	0.041	0.048	0.041	0.035	U
96-12-8	1,2-Dibromo-3-chloropropane	0.041	0.19	0.041	0.027	U
120-82-1	1,2,4-Trichlorobenzene	0.047	0.097	0.083	0.039	J
91-20-3	Naphthalene	0.17	0.19	0.079	0.043	J
87-68-3	Hexachlorobutadiene	0.041	0.19	0.041	0.025	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

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Client: HazAir
Client Sample ID: SVMW-20-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00799

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.97 Final Pressure (psig): 3.81

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.6	0.073	0.061	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.032	0.036	0.032	0.017	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.011	U
74-83-9	Bromomethane	0.010	0.036	0.032	0.0097	J
75-00-3	Chloroethane	0.032	0.036	0.032	0.011	U
107-02-8	Acrolein	0.17	0.29	0.15	0.051	J
67-64-1	Acetone	2.2	3.6	0.16	0.33	J
75-69-4	Trichlorofluoromethane	0.83	0.073	0.061	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.036	0.032	0.013	U
75-09-2	Methylene Chloride	0.061	0.15	0.061	0.011	J
76-13-1	Trichlorotrifluoroethane	0.33	0.036	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.036	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.036	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.036	0.032	0.017	U
156-59-2	cis-1,2-Dichloroethene	0.030	0.036	0.030	0.010	U
67-66-3	Chloroform	0.99	0.15	0.062	0.012	
107-06-2	1,2-Dichloroethane	0.032	0.036	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.030	0.036	0.030	0.013	U
71-43-2	Benzene	0.12	0.11	0.061	0.022	
56-23-5	Carbon Tetrachloride	0.12	0.036	0.030	0.010	
78-87-5	1,2-Dichloropropane	0.016	0.036	0.032	0.0088	J
75-27-4	Bromodichloromethane	0.048	0.036	0.032	0.0084	
79-01-6	Trichloroethene	0.10	0.036	0.030	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00799

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.97 Final Pressure (psig): 3.81

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.16	0.15	0.032	0.013	
10061-01-5	cis-1,3-Dichloropropene	0.030	0.073	0.030	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.030	0.073	0.030	0.0070	U
79-00-5	1,1,2-Trichloroethane	0.030	0.15	0.030	0.0086	U
108-88-3	Toluene	0.79	0.15	0.062	0.017	
124-48-1	Dibromochloromethane	0.030	0.036	0.030	0.0093	U
106-93-4	1,2-Dibromoethane	0.030	0.036	0.030	0.0097	U
127-18-4	Tetrachloroethene	0.14	0.036	0.030	0.023	
108-90-7	Chlorobenzene	0.030	0.15	0.030	0.014	U
100-41-4	Ethylbenzene	0.19	0.15	0.030	0.017	
179601-23-1	m,p-Xylenes	0.66	0.15	0.062	0.035	
100-42-5	Styrene	0.15	0.15	0.030	0.017	
95-47-6	o-Xylene	0.35	0.15	0.030	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.030	0.036	0.030	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.082	0.15	0.030	0.020	J
95-63-6	1,2,4-Trimethylbenzene	0.66	0.15	0.030	0.023	
541-73-1	1,3-Dichlorobenzene	0.030	0.036	0.030	0.025	U
106-46-7	1,4-Dichlorobenzene	0.034	0.036	0.030	0.029	J
95-50-1	1,2-Dichlorobenzene	0.030	0.036	0.030	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.030	0.15	0.030	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.062	0.073	0.062	0.029	U
91-20-3	Naphthalene	0.24	0.15	0.059	0.032	
87-68-3	Hexachlorobutadiene	0.030	0.15	0.030	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02303

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.86

Container Dilution Factor: 1.47

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.074	0.062	0.012	
74-87-3	Chloromethane	0.062	0.074	0.062	0.038	U
75-01-4	Vinyl Chloride	0.032	0.037	0.032	0.018	U
106-99-0	1,3-Butadiene	0.062	0.074	0.062	0.012	U
74-83-9	Bromomethane	0.032	0.037	0.032	0.0098	U
75-00-3	Chloroethane	0.032	0.037	0.032	0.011	U
107-02-8	Acrolein	0.088	0.29	0.15	0.051	J
67-64-1	Acetone	1.1	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	0.90	0.074	0.062	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.037	0.032	0.013	U
75-09-2	Methylene Chloride	0.035	0.15	0.062	0.011	J
76-13-1	Trichlorotrifluoroethane	0.37	0.037	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.037	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.037	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.037	0.032	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	1.1	0.15	0.063	0.012	
107-06-2	1,2-Dichloroethane	0.032	0.037	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.031	0.037	0.031	0.013	U
71-43-2	Benzene	0.058	0.11	0.062	0.022	J
56-23-5	Carbon Tetrachloride	0.12	0.037	0.031	0.010	
78-87-5	1,2-Dichloropropane	0.010	0.037	0.032	0.0090	J
75-27-4	Bromodichloromethane	0.053	0.037	0.032	0.0085	
79-01-6	Trichloroethene	0.042	0.037	0.031	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-20-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02303

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.86

Container Dilution Factor: 1.47

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.032	0.15	0.032	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.074	0.031	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.074	0.031	0.0071	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0087	U
108-88-3	Toluene	0.38	0.15	0.063	0.018	
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0094	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0098	U
127-18-4	Tetrachloroethene	0.16	0.037	0.031	0.024	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.082	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.24	0.15	0.063	0.035	
100-42-5	Styrene	0.042	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.15	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.022	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.14	0.15	0.031	0.024	J
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.029	J
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.063	0.074	0.063	0.029	U
91-20-3	Naphthalene	0.13	0.15	0.060	0.032	J
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00129

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.93

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.075	0.063	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.033	0.037	0.033	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.035	0.037	0.033	0.010	J
75-00-3	Chloroethane	0.020	0.037	0.033	0.012	J
107-02-8	Acrolein	0.18	0.30	0.15	0.052	J
67-64-1	Acetone	3.4	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	0.99	0.075	0.063	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.26	0.15	0.063	0.012	
76-13-1	Trichlorotrifluoroethane	0.38	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.026	0.037	0.033	0.012	J
1634-04-4	Methyl tert-Butyl Ether	0.033	0.037	0.033	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.88	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.037	0.033	0.012	U
71-55-6	1,1,1-Trichloroethane	0.031	0.037	0.031	0.013	U
71-43-2	Benzene	0.22	0.11	0.063	0.022	
56-23-5	Carbon Tetrachloride	0.13	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.017	0.037	0.033	0.0091	J
75-27-4	Bromodichloromethane	0.080	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.057	0.037	0.031	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00129

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.93

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.031	0.075	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.075	0.031	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0088	U
108-88-3	Toluene	0.74	0.15	0.064	0.018	
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.010	U
127-18-4	Tetrachloroethene	0.77	0.037	0.031	0.024	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.13	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.32	0.15	0.064	0.036	
100-42-5	Styrene	0.085	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.16	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.034	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.14	0.15	0.031	0.024	J
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.075	0.064	0.030	U
91-20-3	Naphthalene	0.13	0.15	0.061	0.033	J
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02424

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.32 Final Pressure (psig): 4.10

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.076	0.064	0.013	
74-87-3	Chloromethane	0.064	0.076	0.064	0.040	U
75-01-4	Vinyl Chloride	0.033	0.038	0.033	0.018	U
106-99-0	1,3-Butadiene	0.064	0.076	0.064	0.012	U
74-83-9	Bromomethane	0.014	0.038	0.033	0.010	J
75-00-3	Chloroethane	0.033	0.038	0.033	0.012	U
107-02-8	Acrolein	0.11	0.30	0.15	0.053	J
67-64-1	Acetone	1.8	3.8	0.17	0.35	J
75-69-4	Trichlorofluoromethane	1.0	0.076	0.064	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.095	0.15	0.064	0.012	J
76-13-1	Trichlorotrifluoroethane	0.37	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.033	0.038	0.033	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.033	0.038	0.033	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	0.94	0.15	0.065	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.038	0.033	0.013	U
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.014	U
71-43-2	Benzene	0.11	0.11	0.064	0.023	J
56-23-5	Carbon Tetrachloride	0.10	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.019	0.038	0.033	0.0093	J
75-27-4	Bromodichloromethane	0.085	0.038	0.033	0.0088	
79-01-6	Trichloroethene	0.039	0.038	0.032	0.012	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-10
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02424

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.32 Final Pressure (psig): 4.10

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.076	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.076	0.032	0.0073	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0090	U
108-88-3	Toluene	1.0	0.15	0.065	0.018	
124-48-1	Dibromochloromethane	0.032	0.038	0.032	0.0097	U
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.79	0.038	0.032	0.024	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.080	0.15	0.032	0.018	J
179601-23-1	m,p-Xylenes	0.27	0.15	0.065	0.036	
100-42-5	Styrene	0.059	0.15	0.032	0.018	J
95-47-6	o-Xylene	0.15	0.15	0.032	0.020	J
79-34-5	1,1,1,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.032	0.15	0.032	0.021	U
95-63-6	1,2,4-Trimethylbenzene	0.081	0.15	0.032	0.024	J
541-73-1	1,3-Dichlorobenzene	0.032	0.038	0.032	0.026	U
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.076	0.065	0.030	U
91-20-3	Naphthalene	0.13	0.15	0.062	0.033	J
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00979

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.12 Final Pressure (psig): 3.92

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.3	0.074	0.062	0.013	
74-87-3	Chloromethane	0.062	0.074	0.062	0.038	U
75-01-4	Vinyl Chloride	0.033	0.037	0.033	0.018	U
106-99-0	1,3-Butadiene	0.062	0.074	0.062	0.012	U
74-83-9	Bromomethane	0.033	0.037	0.033	0.0099	U
75-00-3	Chloroethane	0.012	0.037	0.033	0.012	J
107-02-8	Acrolein	0.082	0.30	0.15	0.052	J
67-64-1	Acetone	1.2	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	1.1	0.074	0.062	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.19	0.15	0.062	0.012	
76-13-1	Trichlorotrifluoroethane	0.38	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.033	0.037	0.033	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.033	0.037	0.033	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	1.2	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.037	0.033	0.012	U
71-55-6	1,1,1-Trichloroethane	0.031	0.037	0.031	0.013	U
71-43-2	Benzene	0.14	0.11	0.062	0.022	
56-23-5	Carbon Tetrachloride	0.094	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.031	0.037	0.033	0.0090	J
75-27-4	Bromodichloromethane	0.17	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.065	0.037	0.031	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P2200921-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00979

Date Collected: 2/28/22
 Date Received: 3/1/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.12 Final Pressure (psig): 3.92

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.074	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.074	0.031	0.0071	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0087	U
108-88-3	Toluene	0.52	0.15	0.064	0.018	
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0099	U
127-18-4	Tetrachloroethene	0.92	0.037	0.031	0.024	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.080	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.24	0.15	0.064	0.036	
100-42-5	Styrene	0.038	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.14	0.15	0.031	0.019	J
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.025	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.11	0.15	0.031	0.024	J
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.074	0.064	0.030	U
91-20-3	Naphthalene	0.096	0.15	0.061	0.033	J
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220307-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.042	0.050	0.042	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.022	0.025	0.022	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.11	2.5	0.11	0.23	U
75-69-4	Trichlorofluoromethane	0.042	0.050	0.042	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.015	0.10	0.042	0.0078	J
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220307-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.043	0.10	0.043	0.012	U
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.016	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.021	0.10	0.021	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220308-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.042	0.050	0.042	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.022	0.025	0.022	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.11	2.5	0.11	0.23	U
75-69-4	Trichlorofluoromethane	0.042	0.050	0.042	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220308-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.043	0.10	0.043	0.012	U
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.016	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.021	0.10	0.021	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 2/28/22
 Date(s) Received: 3/1/22
 Date(s) Analyzed: 3/7 - 3/8/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		% Recovered	% Recovered	% Recovered		
Method Blank	P220307-MB	98	99	98	70-130	
Method Blank	P220308-MB	90	96	109	70-130	
Lab Control Sample	P220307-LCS	93	98	120	70-130	
Lab Control Sample	P220308-LCS	89	94	122	70-130	
Duplicate Lab Control Sample	P220307-DLCS	93	97	121	70-130	
Duplicate Lab Control Sample	P220308-DLCS	89	95	122	70-130	
SVMW-20-5	P2200921-001	85	95	132	70-130	S
SVMW-23-5	P2200921-002	86	95	125	70-130	
SVMW-23-10	P2200921-003	89	95	124	70-130	
SVMW-23-15	P2200921-004	88	97	122	70-130	
SVMW-20-10	P2200921-005	94	97	118	70-130	
SVMW-20-15	P2200921-006	89	96	120	70-130	
SVMW-21-15	P2200921-007	89	95	119	70-130	
SVMW-21-10	P2200921-008	91	96	118	70-130	
SVMW-21-15	P2200921-009	88	96	119	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

S = Surrogate recovery not within specified limits.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220307-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	17.3	17.5	83	84	59-128	1	25	
74-87-3	Chloromethane	20.6	19.2	19.0	93	92	59-132	1	25	
75-01-4	Vinyl Chloride	20.8	18.5	18.2	89	88	64-127	1	25	
106-99-0	1,3-Butadiene	20.6	17.8	17.6	86	85	66-134	1	25	
74-83-9	Bromomethane	20.6	16.9	16.8	82	82	63-134	0	25	
75-00-3	Chloroethane	20.6	16.5	16.4	80	80	63-127	0	25	
107-02-8	Acrolein	41.6	32.8	32.5	79	78	62-126	1	25	
67-64-1	Acetone	102	84.1	83.4	82	82	58-128	0	25	
75-69-4	Trichlorofluoromethane	20.2	16.8	16.6	83	82	62-126	1	25	
75-35-4	1,1-Dichloroethene	21.0	18.5	18.5	88	88	61-133	0	25	
75-09-2	Methylene Chloride	20.8	16.9	16.9	81	81	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	18.1	18.3	84	85	66-126	1	25	
156-60-5	trans-1,2-Dichloroethene	20.8	19.0	18.9	91	91	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.4	18.3	18.1	86	85	68-126	1	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.6	18.4	90	89	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	20.6	19.1	18.8	93	91	70-121	2	25	
67-66-3	Chloroform	21.0	18.2	18.0	87	86	68-123	1	25	
107-06-2	1,2-Dichloroethane	21.0	17.7	17.5	84	83	65-128	1	25	
71-55-6	1,1,1-Trichloroethane	20.8	18.4	18.2	88	88	68-125	0	25	
71-43-2	Benzene	20.8	17.9	17.6	86	85	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	18.0	17.8	89	88	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	17.1	16.9	83	82	69-123	1	25	
75-27-4	Bromodichloromethane	20.8	17.3	17.2	83	83	72-128	0	25	
79-01-6	Trichloroethene	20.4	18.4	18.4	90	90	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220307-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/7/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
123-91-1	1,4-Dioxane	20.6	18.3	18.2	89	88	71-122	1	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	18.8	18.7	90	90	70-128	0	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	18.5	18.4	93	92	75-133	1	25	
79-00-5	1,1,2-Trichloroethane	20.8	17.3	17.0	83	82	73-119	1	25	
108-88-3	Toluene	20.6	17.2	17.0	83	83	66-119	0	25	
124-48-1	Dibromochloromethane	21.0	17.5	17.4	83	83	70-130	0	25	
106-93-4	1,2-Dibromoethane	20.8	18.0	18.0	87	87	74-122	0	25	
127-18-4	Tetrachloroethene	21.2	17.8	17.7	84	83	66-124	1	25	
108-90-7	Chlorobenzene	20.6	19.2	19.1	93	93	70-119	0	25	
100-41-4	Ethylbenzene	20.6	19.9	19.8	97	96	70-124	1	25	
179601-23-1	m,p-Xylenes	41.6	40.3	40.0	97	96	61-134	1	25	
100-42-5	Styrene	20.2	22.0	22.0	109	109	73-127	0	25	
95-47-6	o-Xylene	20.8	20.9	20.8	100	100	67-125	0	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	18.7	18.5	90	89	65-127	1	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	20.6	20.5	99	99	67-130	0	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	20.7	20.6	100	100	66-132	0	25	
541-73-1	1,3-Dichlorobenzene	20.8	20.5	20.4	99	98	65-130	1	25	
106-46-7	1,4-Dichlorobenzene	21.0	19.4	19.5	92	93	60-131	1	25	
95-50-1	1,2-Dichlorobenzene	21.0	19.7	19.6	94	93	63-129	1	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	39.8	39.8	99	99	64-143	0	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	37.5	37.7	89	90	55-142	1	25	
91-20-3	Naphthalene	21.0	18.6	18.8	89	90	57-138	1	25	
87-68-3	Hexachlorobutadiene	21.2	21.3	21.2	100	100	56-138	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220308-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	17.7	17.7	85	85	59-128	0	25	
74-87-3	Chloromethane	20.6	18.6	18.2	90	88	59-132	2	25	
75-01-4	Vinyl Chloride	20.8	17.9	17.8	86	86	64-127	0	25	
106-99-0	1,3-Butadiene	20.6	18.3	18.5	89	90	66-134	1	25	
74-83-9	Bromomethane	20.6	17.4	17.5	84	85	63-134	1	25	
75-00-3	Chloroethane	20.6	17.0	17.0	83	83	63-127	0	25	
107-02-8	Acrolein	41.6	32.9	33.3	79	80	62-126	1	25	
67-64-1	Acetone	102	85.7	85.6	84	84	58-128	0	25	
75-69-4	Trichlorofluoromethane	20.2	17.0	17.1	84	85	62-126	1	25	
75-35-4	1,1-Dichloroethene	21.0	18.8	18.9	90	90	61-133	0	25	
75-09-2	Methylene Chloride	20.8	17.0	17.0	82	82	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	19.0	19.1	88	88	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	18.8	18.8	90	90	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.4	17.9	17.8	84	83	68-126	1	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.1	18.3	88	89	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	20.6	18.6	18.7	90	91	70-121	1	25	
67-66-3	Chloroform	21.0	17.5	17.7	83	84	68-123	1	25	
107-06-2	1,2-Dichloroethane	21.0	16.9	17.0	80	81	65-128	1	25	
71-55-6	1,1,1-Trichloroethane	20.8	17.7	17.8	85	86	68-125	1	25	
71-43-2	Benzene	20.8	17.1	17.2	82	83	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	17.3	17.6	86	87	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	16.8	16.9	82	82	69-123	0	25	
75-27-4	Bromodichloromethane	20.8	16.8	16.9	81	81	72-128	0	25	
79-01-6	Trichloroethene	20.4	18.7	18.8	92	92	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200921
 ALS Sample ID: P220308-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
123-91-1	1,4-Dioxane	20.6	18.0	18.1	87	88	71-122	1	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	18.3	18.5	88	89	70-128	1	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	17.7	18.1	89	91	75-133	2	25	
79-00-5	1,1,2-Trichloroethane	20.8	16.8	16.9	81	81	73-119	0	25	
108-88-3	Toluene	20.6	16.7	16.8	81	82	66-119	1	25	
124-48-1	Dibromochloromethane	21.0	17.2	17.3	82	82	70-130	0	25	
106-93-4	1,2-Dibromoethane	20.8	17.6	17.8	85	86	74-122	1	25	
127-18-4	Tetrachloroethene	21.2	18.2	18.2	86	86	66-124	0	25	
108-90-7	Chlorobenzene	20.6	20.0	20.0	97	97	70-119	0	25	
100-41-4	Ethylbenzene	20.6	20.4	20.4	99	99	70-124	0	25	
179601-23-1	m,p-Xylenes	41.6	41.2	41.1	99	99	61-134	0	25	
100-42-5	Styrene	20.2	22.2	22.3	110	110	73-127	0	25	
95-47-6	o-Xylene	20.8	21.5	21.5	103	103	67-125	0	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	19.0	19.1	91	92	65-127	1	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	21.0	21.1	101	101	67-130	0	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	21.1	21.2	102	103	66-132	1	25	
541-73-1	1,3-Dichlorobenzene	20.8	21.4	21.5	103	103	65-130	0	25	
106-46-7	1,4-Dichlorobenzene	21.0	20.3	20.4	97	97	60-131	0	25	
95-50-1	1,2-Dichlorobenzene	21.0	20.4	20.6	97	98	63-129	1	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	40.9	41.3	101	102	64-143	1	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	39.7	40.4	95	96	55-142	1	25	
91-20-3	Naphthalene	21.0	19.0	19.5	90	93	57-138	3	25	
87-68-3	Hexachlorobutadiene	21.2	22.8	23.0	108	108	56-138	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio Zavala
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03072204.D
Date Analyzed: 3/7/22
Time Analyzed: 09:44

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220307-LCS	03072205.D	10:15
Duplicate Lab Control Sample	P220307-DLCS	03072206.D	10:46
SVMW-20-5	P2200921-001	03072210.D	14:03
SVMW-23-5	P2200921-002	03072211.D	14:34
SVMW-23-10	P2200921-003	03072212.D	15:05

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio Zavala
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03082204.D
Date Analyzed: 3/8/22
Time Analyzed: 06:03

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220308-LCS	03082205.D	06:34
Duplicate Lab Control Sample	P220308-DLCS	03082206.D	07:05
SVMW-20-10	P2200921-005	03082207.D	08:52
SVMW-20-15	P2200921-006	03082208.D	09:24
SVMW-21-15	P2200921-007	03082209.D	09:57
SVMW-21-10	P2200921-008	03082210.D	10:28
SVMW-21-15	P2200921-009	03082211.D	10:59
SVMW-23-15	P2200921-004	03082212.D	11:31

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 03072202.D
 Date Analyzed: 3/7/22
 Time Analyzed: 08:42

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	19220	9.60	91161	11.56	16130	15.89
Upper Limit	26908	9.93	127625	11.89	22582	16.22
Lower Limit	11532	9.27	54697	11.23	9678	15.56

Client Sample ID	IS1 (BCM) AREA #	IS1 (BCM) RT #	IS2 (DFB) AREA #	IS2 (DFB) RT #	IS3 (CBZ) AREA #	IS3 (CBZ) RT #
01 Method Blank	16657	9.62	79132	11.57	15150	15.90
02 Lab Control Sample	17677	9.61	83963	11.56	15042	15.90
03 Duplicate Lab Control Sample	17547	9.61	83343	11.56	14957	15.90
04 SVMW-20-5	23884	9.61	109841	11.56	18618	15.90
05 SVMW-23-5	24868	9.61	114764	11.56	22441	15.90
06 SVMW-23-10	24676	9.61	115468	11.56	22424	15.90
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200921

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 03082202.D
 Date Analyzed: 3/8/22
 Time Analyzed: 04:54

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
	AREA	#	RT	#	AREA	#	RT	#			
24 Hour Standard	20751		9.60		96928		11.56		16356		15.90
Upper Limit	29051		9.93		135699		11.89		22898		16.23
Lower Limit	12451		9.27		58157		11.23		9814		15.57

Client Sample ID		IS1 (BCM)	IS2 (DFB)	IS3 (CBZ)			
		AREA	RT	AREA	RT	AREA	RT
01	Method Blank	17616	9.62	82238	11.56	14248	15.90
02	Lab Control Sample	18477	9.61	85601	11.56	14527	15.90
03	Duplicate Lab Control Sample	17590	9.61	82074	11.56	14066	15.90
04	SVMW-23-15	23046	9.61	106611	11.56	21236	15.90
05	SVMW-20-10	18061	9.60	84433	11.56	16629	15.90
06	SVMW-20-15	20461	9.61	95060	11.56	16883	15.90
07	SVMW-21-15	21163	9.60	98531	11.56	17515	15.90
08	SVMW-21-10	22176	9.61	103797	11.56	19779	15.90
09	SVMW-21-15	22390	9.61	103909	11.56	19765	15.90
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.



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LABORATORY REPORT

September 7, 2022

Jessie Moore
HazAir
1717 Louisiana Blvd. NE, Ste. 116
Albuquerque, NM 87110

RE: BFF

Dear Jessie:

Enclosed are the results of the samples submitted to our laboratory on March 2, 2022. Sample BKGD-030122 was sent out for analysis to Atmospheric Analysis & Consulting, Inc. Please find their report (Project No.: 220425) attached. For your reference, these analyses have been assigned our service request number P2200932.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

11:00 pm, Sep 07, 2022

Sue Anderson
Project Manager



Client: HazAir
Project: BFF

Service Request No: P2200932

CASE NARRATIVE

The samples were received intact under chain of custody on March 2, 2022 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

Volatile Organic Compound Analysis

The samples were analyzed in both scan and SIM mode for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

All of the canisters were pressurized a second time because the initial SIM run QC did not meet criteria and had to be re-run.

The minimum criterion for vinyl chloride was not met in the Continuing Calibration Verification (CCV) & ending Continuing Calibration Verification (CCVend) analyzed on March 22, 2022. In accordance with ALS Environmental standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verified that instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question, the data quality has not been significantly affected. This procedure is a quantitative confirmation of non-detect results at or below the MRL. No further corrective action was necessary.



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Client: HazAir
Project: BFF

Service Request No: P2200932

CASE NARRATIVE

Manual integrations were performed on the following sample(s) and analyte(s). Refer to the raw data for additional information.

Sample Identification(s)	Analyte(s)
P2200932-005	Bromodichloromethane

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. The canister for sample SVMW-16-10 (P2200932-007) had a hit of methylene chloride greater than $\frac{1}{2}$ the MRL. For projects requiring DoD QSM 5.3 compliance canisters were cleaned to $<1/2$ the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413- 19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA01627201 9-10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: HazAir
 Project ID: BFF

Service Request: P2200932

Date Received: 3/2/2022
 Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	2nd Pi (psig)	2nd Pf (psig)	TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM	ASTM D1946 - Sub-out to AAC
DUPE-15	P2200932-001	Air	3/1/2022	09:21	AC01570	-1.74	4.20	1.33	4.13	X	X	X	
DUPE-10	P2200932-002	Air	3/1/2022	09:53	AS01299	-1.67	4.43	1.80	3.57	X	X	X	
SVMW-22-5	P2200932-003	Air	3/1/2022	10:40	AS01529	-2.53	4.05	1.45	3.53	X	X	X	
SVMW-22-10	P2200932-004	Air	3/1/2022	11:16	AS01008	-2.54	4.10	1.52	3.86	X	X	X	
SVMW-22-15	P2200932-005	Air	3/1/2022	11:56	AS00726	-2.64	4.04	0.93	3.74	X	X	X	
SVMW-16-5	P2200932-006	Air	3/1/2022	13:08	AC02406	-2.46	4.15	1.64	3.86	X	X	X	
SVMW-16-10	P2200932-007	Air	3/1/2022	13:41	AS01620	-2.34	3.91	1.01	3.76	X	X	X	
SVMW-16-15	P2200932-008	Air	3/1/2022	14:19	AC01932	-2.26	4.04	1.51	3.62	X	X	X	
SVMW-17-5	P2200932-009	Air	3/1/2022	14:54	AC02382	-2.23	4.00	1.45	3.87	X	X	X	
SVMW-17-10	P2200932-010	Air	3/1/2022	15:19	AS01480	-2.23	3.92	1.35	3.71	X	X	X	
SVMW-17-15	P2200932-011	Air	3/1/2022	15:53	AC00655	-1.94	4.14	1.46	4.17	X	X	X	
BKGD-030122	P2200932-012	Air	3/1/2022	08:49	AS01480	*							X

*See Sub-lab data.



Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
 Simi Valley, California 93065
 Phone (805) 526-7161

Company Name & Address (Reporting Information) Haz Air Leslie Americas Hwy Ste 242 ABQ NM 87110		Project Name BPF		Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard		ALS Project No. 1200932		
Project Manager Danny Taylor		Project Number 		ALS Contact 				
P.O. # / Billing Information 		P.O. # / Billing Information 		Analysis Method TC-1551M/TO-1551M/TO		Comments e.g. Actual Preservative or specific instructions 		
Email Address for Result Reporting jessie.move@hazair.com		Sampler (Print & Sign) Jessie Move						
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume
DUPE-15	1	3/1/22	0921	AC01570	N/A	-24.5	-0.9	6L
DUPE-10	2	3/1/22	0953	AS01799	N/A	-25.5	-0.9	6L
SVMW-22-5	3	3/1/22	1040	AS01529	N/A	-25.5	-0.9	6L
SVMW-22-10	4	3/1/22	1110	AS01008	N/A	-25.5	-0.9	6L
SVMW-22-15	5	3/1/22	1150	AS00720	N/A	-25.5	-1.9	6L
SVMW-16-5	6	3/1/22	1308	AC02066	N/A	-26.0	-0.9	6L
SVMW-16-10	7	3/1/22	1341	AS01620	N/A	-24.5	-0.9	6L
SVMW-16-15	8	3/1/22	1419	AC01932	N/A	-25.5	-1.9	6L
SVMW-17-5	9	3/1/22	1454	AC02382	N/A	-25.5	-0.9	6L
SVMW-17-10	10	3/1/22	1519	AS01480	N/A	-25.5	-0.9	6L
SVMW-17-15	11	3/1/22	1553	AC00655	N/A	-25.5	-1.9	6L
BKGD-030122	12	3/1/22	0849	AC02131	SFC00506	-24.0	-9	6L
Report Tier Levels - please select Tier I - Results (Default if not specified) _____ Tier II (Results + QC Summaries) _____ Tier III (Results + QC & Calibration Summaries) _____ Tier IV (Data Validation Package) 10% Surcharge <input checked="" type="checkbox"/>		EDD required <input checked="" type="checkbox"/> Yes / No _____ Units: _____		Chain of Custody Seal: (Circle) INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT <input checked="" type="checkbox"/>		Project Requirements (MRLs, QAPP)		
Relinquished by: (Signature) DJ TL		Date: 3/1/22 Time: 1646		Received by: (Signature) _____		Date: _____ Time: _____		
Relinquished by: (Signature) _____		Date: _____ Time: _____		Received by: (Signature) _____		Date: 3/2-22 Time: 0950		

**ALS Environmental
Sample Acceptance Check Form**

Client: HazAir Work order: P2200932
 Project: BFF
 Sample(s) received on: 3/2/22 Date opened: 3/2/22 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2200932-001.01	6.0 L Ambient Can					
P2200932-002.01	6.0 L Silonite Can					
P2200932-003.01	6.0 L Silonite Can					
P2200932-004.01	6.0 L Silonite Can					
P2200932-005.01	6.0 L Silonite Can					
P2200932-006.01	6.0 L Ambient Can					
P2200932-007.01	6.0 L Silonite Can					
P2200932-008.01	6.0 L Ambient Can					
P2200932-009.01	6.0 L Ambient Can					
P2200932-010.01	6.0 L Silonite Can					
P2200932-011.01	6.0 L Ambient Can					
P2200932-012.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir

Client Project ID: BFF

ALS Project ID: P2200932

Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified

Instrument ID: HP 5890 II/GC21/FID

Analyst: Gilbert Gutierrez

Sampling Media: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)

Test Notes:

Date(s) Collected: 3/1/22

Date Received: 3/2/22

Date Analyzed: 3/3/22

Client Sample ID	ALS Sample ID	Container Dilution Factor	Injection Volume ml(s)	Result mg/m ³	LOQ mg/m ³	LOD mg/m ³	MDL mg/m ³	Data Qualifier
DUPE-15	P2200932-001	1.46	1.0	4.2	26	4.2	1.3	U
DUPE-10	P2200932-002	1.47	1.0	4.3	26	4.3	1.3	U
SVMW-22-5	P2200932-003	1.54	1.0	4.5	28	4.5	1.4	U
SVMW-22-10	P2200932-004	1.55	1.0	4.5	28	4.5	1.4	U
SVMW-22-15	P2200932-005	1.55	1.0	4.5	28	4.5	1.4	U
SVMW-16-5	P2200932-006	1.54	1.0	4.5	28	4.5	1.4	U
SVMW-16-10	P2200932-007	1.51	1.0	4.4	27	4.4	1.4	U
SVMW-16-15	P2200932-008	1.51	1.0	4.4	27	4.4	1.4	U
SVMW-17-5	P2200932-009	1.50	1.0	4.4	27	4.4	1.4	U
SVMW-17-10	P2200932-010	1.49	1.0	4.3	27	4.3	1.4	U
SVMW-17-15	P2200932-011	1.48	1.0	4.3	27	4.3	1.3	U
Method Blank	P220303-MB	1.00	1.0	2.9	18	2.9	0.91	U

Parts Per Million results are based on a Molecular Weight of 86.18.

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220303-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/3/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result		% Recovery		ALS	RPD	RPD	Data
	LCS / DLCS	LCS	DLCS	LCS	DLCS	Acceptance	RPD	RPD	Data	
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits		Limit	Qualifier	
TPH as Gasoline	7,190	7,400	7,360	103	102	89-124	1	14		

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03032203.D
Date Analyzed: 3/3/22
Time Analyzed: 07:29

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220303-LCS	03032204.D	07:48
Duplicate Lab Control Sample	P220303-DLCS	03032205.D	08:06
DUPE-15	P2200932-001	03032206.D	08:26
DUPE-10	P2200932-002	03032207.D	08:54
SVMW-22-5	P2200932-003	03032208.D	09:13
SVMW-22-10	P2200932-004	03032209.D	09:32
SVMW-22-15	P2200932-005	03032210.D	09:57
SVMW-16-5	P2200932-006	03032211.D	10:17
SVMW-16-10	P2200932-007	03032212.D	10:49
SVMW-16-15	P2200932-008	03032213.D	11:11
SVMW-17-5	P2200932-009	03032214.D	11:29
SVMW-17-10	P2200932-010	03032215.D	11:47
SVMW-17-15	P2200932-011	03032217.D	12:21

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: DUPE-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01570

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.74 Final Pressure (psig): 4.20
 Initial Pressure 2 (psig): 1.33 Final Pressure 2 (psig): 4.13

Container Dilution Factor: 1.71

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.23	0.91	0.53	0.19	J
110-82-7	Cyclohexane	0.56	1.9	0.56	0.26	U
142-82-5	n-Heptane	0.19	0.91	0.53	0.15	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01299

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.67 Final Pressure (psig): 4.43
 Initial Pressure 2 (psig): 1.80 Final Pressure 2 (psig): 3.57

Container Dilution Factor: 1.63

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.51	0.86	0.51	0.18	U
110-82-7	Cyclohexane	0.54	1.8	0.54	0.24	U
142-82-5	n-Heptane	0.51	0.86	0.51	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01529

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.53 Final Pressure (psig): 4.05
 Initial Pressure 2 (psig): 1.45 Final Pressure 2 (psig): 3.53

Container Dilution Factor: 1.74

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.54	0.92	0.54	0.19	U
110-82-7	Cyclohexane	0.57	1.9	0.57	0.26	U
142-82-5	n-Heptane	0.54	0.92	0.54	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-22-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01008

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.54 Final Pressure (psig): 4.10
 Initial Pressure 2 (psig): 1.52 Final Pressure 2 (psig): 3.86

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.55	0.94	0.55	0.19	U
110-82-7	Cyclohexane	0.58	1.9	0.58	0.27	U
142-82-5	n-Heptane	0.55	0.94	0.55	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-22-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00726

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.64 Final Pressure (psig): 4.04
 Initial Pressure 2 (psig): 0.93 Final Pressure 2 (psig): 3.74

Container Dilution Factor: 1.83

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.57	0.97	0.57	0.20	U
110-82-7	Cyclohexane	0.60	2.0	0.60	0.27	U
142-82-5	n-Heptane	0.57	0.97	0.57	0.16	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-16-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-006

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02406

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.46 Final Pressure (psig): 4.15
 Initial Pressure 2 (psig): 1.64 Final Pressure 2 (psig): 3.86

Container Dilution Factor: 1.75

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.54	0.93	0.54	0.19	U
110-82-7	Cyclohexane	0.58	1.9	0.58	0.26	U
142-82-5	n-Heptane	0.54	0.93	0.54	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-16-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01620

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.34 Final Pressure (psig): 3.91
 Initial Pressure 2 (psig): 1.01 Final Pressure 2 (psig): 3.76

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.24	0.94	0.55	0.19	J
110-82-7	Cyclohexane	0.58	1.9	0.58	0.27	U
142-82-5	n-Heptane	0.55	0.94	0.55	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-008

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01932

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.26 Final Pressure (psig): 4.04
 Initial Pressure 2 (psig): 1.51 Final Pressure 2 (psig): 3.62

Container Dilution Factor: 1.70

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.53	0.90	0.53	0.19	U
110-82-7	Cyclohexane	0.56	1.9	0.56	0.26	U
142-82-5	n-Heptane	0.53	0.90	0.53	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-17-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-009

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02382

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.23 Final Pressure (psig): 4.00
 Initial Pressure 2 (psig): 1.45 Final Pressure 2 (psig): 3.87

Container Dilution Factor: 1.72

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	1.3	0.91	0.53	0.19	
110-82-7	Cyclohexane	0.57	1.9	0.57	0.26	U
142-82-5	n-Heptane	0.53	0.91	0.53	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-17-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-010

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01480

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.23 Final Pressure (psig): 3.92
 Initial Pressure 2 (psig): 1.35 Final Pressure 2 (psig): 3.71

Container Dilution Factor: 1.71

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.27	0.91	0.53	0.19	J
110-82-7	Cyclohexane	0.56	1.9	0.56	0.26	U
142-82-5	n-Heptane	0.53	0.91	0.53	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-17-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-011

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00655

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.94 Final Pressure (psig): 4.14
 Initial Pressure 2 (psig): 1.46 Final Pressure 2 (psig): 4.17

Container Dilution Factor: 1.72

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.44	0.91	0.53	0.19	J
110-82-7	Cyclohexane	0.57	1.9	0.57	0.26	U
142-82-5	n-Heptane	0.18	0.91	0.53	0.15	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220317-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220318-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala/Wida Ang
 Sampling Media: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)
 Test Notes:

Date(s) Collected: 3/1/22
 Date(s) Received: 3/2/22
 Date(s) Analyzed: 3/17 - 3/19/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P220317-MB	97	92	105	70-130	
Method Blank	P220318-MB	99	91	103	70-130	
Lab Control Sample	P220317-LCS	99	89	108	70-130	
Lab Control Sample	P220318-LCS	99	89	108	70-130	
Duplicate Lab Control Sample	P220317-DLCS	95	92	111	70-130	
Duplicate Lab Control Sample	P220318-DLCS	98	91	109	70-130	
DUPE-15	P2200932-001	98	87	99	70-130	
DUPE-10	P2200932-002	98	90	98	70-130	
SVMW-22-5	P2200932-003	98	89	98	70-130	
SVMW-22-10	P2200932-004	99	89	100	70-130	
SVMW-22-15	P2200932-005	98	91	101	70-130	
SVMW-16-5	P2200932-006	98	89	100	70-130	
SVMW-16-10	P2200932-007	97	91	105	70-130	
SVMW-16-15	P2200932-008	96	91	104	70-130	
SVMW-17-5	P2200932-009	97	90	103	70-130	
SVMW-17-10	P2200932-010	96	91	104	70-130	
SVMW-17-15	P2200932-011	98	89	104	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220317-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	208	205	192	99	92	63-120	7	25	
110-82-7	Cyclohexane	412	387	372	94	90	70-117	4	25	
142-82-5	n-Heptane	206	190	181	92	88	69-123	4	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220318-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	208	233	223	112	107	63-120	5	25	
110-82-7	Cyclohexane	412	447	435	108	106	70-117	2	25	
142-82-5	n-Heptane	206	217	213	105	103	69-123	2	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 03172237.D
Date Analyzed: 3/17/22
Time Analyzed: 22:04

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220317-LCS	03172242.D	00:54
Duplicate Lab Control Sample	P220317-DLCS	03172243.D	01:28
DUPE-15	P2200932-001	03172253.D	14:19
DUPE-10	P2200932-002	03172254.D	14:53
SVMW-22-5	P2200932-003	03172255.D	15:27
SVMW-22-10	P2200932-004	03172256.D	16:01
SVMW-22-15	P2200932-005	03172257.D	16:35
SVMW-16-5	P2200932-006	03172259.D	17:42
SVMW-16-10	P2200932-007	03172260.D	18:16
SVMW-16-15	P2200932-008	03172261.D	18:50
SVMW-17-5	P2200932-009	03172262.D	19:23
SVMW-17-10	P2200932-010	03172263.D	19:57

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Topacio Zavala
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 03182203.D
Date Analyzed: 3/18/22
Time Analyzed: 22:12

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220318-LCS	03182204.D	22:45
Duplicate Lab Control Sample	P220318-DLCS	03182205.D	23:19
SVMW-17-15	P2200932-011	03182207.D	00:25

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 03172235.D
 Date Analyzed: 3/17/22
 Time Analyzed: 20:56

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	215458	11.32	986092	13.43	192205	17.73
Upper Limit	301641	11.65	1380529	13.76	269087	18.06
Lower Limit	129275	10.99	591655	13.10	115323	17.40

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	192462	11.30	886199	13.42	169526	17.73
02	Lab Control Sample	188754	11.31	871255	13.43	177622	17.73
03	Duplicate Lab Control Sample	217297	11.31	982454	13.43	188876	17.73
04	DUPE-15	154321	11.30	712467	13.43	149394	17.73
05	DUPE-10	161318	11.30	743805	13.42	147995	17.73
06	SVMW-22-5	159977	11.30	739570	13.42	150074	17.73
07	SVMW-22-10	157676	11.30	750893	13.42	146981	17.73
08	SVMW-22-15	163381	11.30	765697	13.42	148352	17.73
09	SVMW-16-5	152052	11.30	704314	13.42	140019	17.73
10	SVMW-16-10	161657	11.30	746228	13.42	146704	17.73
11	SVMW-16-15	164792	11.30	759517	13.42	145848	17.73
12	SVMW-17-5	160498	11.30	737247	13.42	142664	17.73
13	SVMW-17-10	162979	11.30	739664	13.42	145090	17.73
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area

AREA LOWER LIMIT = 60% of internal standard area

RT UPPER LIMIT = 0.33 minutes of internal standard RT

RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 03182201.D
 Date Analyzed: 3/18/22
 Time Analyzed: 21:05

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	193489	11.32	886356	13.43	169652	17.73
Upper Limit	270885	11.65	1240898	13.76	237513	18.06
Lower Limit	116093	10.99	531814	13.10	101791	17.40

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	154812	11.30	720555	13.42	139932	17.73
02	Lab Control Sample	165763	11.31	769393	13.43	157389	17.73
03	Duplicate Lab Control Sample	181064	11.31	835460	13.43	164178	17.73
04	SVMW-17-15	150056	11.29	697019	13.42	138869	17.73
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area

AREA LOWER LIMIT = 60% of internal standard area

RT UPPER LIMIT = 0.33 minutes of internal standard RT

RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01570

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -1.74 Final Pressure (psig): 4.20
 Initial Pressure 2 (psig): 1.33 Final Pressure 2 (psig): 4.13

Container Dilution Factor: 1.71

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.11	0.096	0.019	
74-87-3	Chloromethane	0.096	0.11	0.096	0.059	U
75-01-4	Vinyl Chloride	0.050	0.057	0.050	0.027	U, V
106-99-0	1,3-Butadiene	0.096	0.11	0.096	0.018	U
74-83-9	Bromomethane	0.016	0.057	0.050	0.015	J
75-00-3	Chloroethane	0.050	0.057	0.050	0.018	U
107-02-8	Acrolein	0.50	0.46	0.23	0.080	
67-64-1	Acetone	5.0	5.7	0.25	0.52	J
75-69-4	Trichlorofluoromethane	0.98	0.11	0.096	0.018	
75-35-4	1,1-Dichloroethene	0.050	0.057	0.050	0.020	U
75-09-2	Methylene Chloride	0.25	0.23	0.096	0.018	
76-13-1	Trichlorotrifluoroethane	0.39	0.057	0.050	0.018	
156-60-5	trans-1,2-Dichloroethene	0.050	0.057	0.050	0.025	U
75-34-3	1,1-Dichloroethane	0.050	0.057	0.050	0.019	U
1634-04-4	Methyl tert-Butyl Ether	0.050	0.057	0.050	0.027	U
156-59-2	cis-1,2-Dichloroethene	0.048	0.057	0.048	0.016	U
67-66-3	Chloroform	1.0	0.23	0.098	0.018	
107-06-2	1,2-Dichloroethane	0.050	0.057	0.050	0.019	U
71-55-6	1,1,1-Trichloroethane	0.048	0.057	0.048	0.021	U
71-43-2	Benzene	0.31	0.17	0.096	0.034	
56-23-5	Carbon Tetrachloride	0.13	0.057	0.048	0.016	
78-87-5	1,2-Dichloropropane	0.042	0.057	0.050	0.014	J
75-27-4	Bromodichloromethane	0.057	0.057	0.050	0.013	
79-01-6	Trichloroethene	0.039	0.057	0.048	0.018	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: DUPE-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01570

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -1.74 Final Pressure (psig): 4.20
 Initial Pressure 2 (psig): 1.33 Final Pressure 2 (psig): 4.13

Container Dilution Factor: 1.71

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.050	0.23	0.050	0.020	U
10061-01-5	cis-1,3-Dichloropropene	0.048	0.11	0.048	0.016	U
10061-02-6	trans-1,3-Dichloropropene	0.048	0.11	0.048	0.011	U
79-00-5	1,1,2-Trichloroethane	0.048	0.23	0.048	0.013	U
108-88-3	Toluene	1.5	0.23	0.098	0.027	
124-48-1	Dibromochloromethane	0.048	0.057	0.048	0.015	U
106-93-4	1,2-Dibromoethane	0.048	0.057	0.048	0.015	U
127-18-4	Tetrachloroethene	0.14	0.057	0.048	0.036	
108-90-7	Chlorobenzene	0.048	0.23	0.048	0.022	U
100-41-4	Ethylbenzene	0.19	0.23	0.048	0.027	J
179601-23-1	m,p-Xylenes	0.57	0.23	0.098	0.055	
100-42-5	Styrene	0.12	0.23	0.048	0.027	J
95-47-6	o-Xylene	0.26	0.23	0.048	0.030	
79-34-5	1,1,1,2-Tetrachloroethane	0.048	0.057	0.048	0.020	U
108-67-8	1,3,5-Trimethylbenzene	0.059	0.23	0.048	0.032	J
95-63-6	1,2,4-Trimethylbenzene	0.26	0.23	0.048	0.036	
541-73-1	1,3-Dichlorobenzene	0.048	0.057	0.048	0.039	U
106-46-7	1,4-Dichlorobenzene	0.088	0.057	0.048	0.046	
95-50-1	1,2-Dichlorobenzene	0.048	0.057	0.048	0.041	U
96-12-8	1,2-Dibromo-3-chloropropane	0.048	0.23	0.048	0.032	U
120-82-1	1,2,4-Trichlorobenzene	0.098	0.11	0.098	0.046	U
91-20-3	Naphthalene	0.14	0.23	0.093	0.050	J
87-68-3	Hexachlorobutadiene	0.048	0.23	0.048	0.030	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: DUPE-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01299

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.67 Final Pressure (psig): 4.43
 Initial Pressure 2 (psig): 1.80 Final Pressure 2 (psig): 3.57

Container Dilution Factor: 1.63

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.082	0.068	0.014	
74-87-3	Chloromethane	0.068	0.082	0.068	0.042	U
75-01-4	Vinyl Chloride	0.036	0.041	0.036	0.020	U, V
106-99-0	1,3-Butadiene	0.068	0.082	0.068	0.013	U
74-83-9	Bromomethane	0.013	0.041	0.036	0.011	J
75-00-3	Chloroethane	0.036	0.041	0.036	0.013	U
107-02-8	Acrolein	0.15	0.33	0.16	0.057	J
67-64-1	Acetone	1.8	4.1	0.18	0.37	J
75-69-4	Trichlorofluoromethane	1.1	0.082	0.068	0.013	
75-35-4	1,1-Dichloroethene	0.036	0.041	0.036	0.014	U
75-09-2	Methylene Chloride	0.099	0.16	0.068	0.013	J
76-13-1	Trichlorotrifluoroethane	0.39	0.041	0.036	0.013	
156-60-5	trans-1,2-Dichloroethene	0.036	0.041	0.036	0.018	U
75-34-3	1,1-Dichloroethane	0.036	0.041	0.036	0.013	U
1634-04-4	Methyl tert-Butyl Ether	0.036	0.041	0.036	0.020	U
156-59-2	cis-1,2-Dichloroethene	0.034	0.041	0.034	0.012	U
67-66-3	Chloroform	0.99	0.16	0.070	0.013	
107-06-2	1,2-Dichloroethane	0.036	0.041	0.036	0.014	U
71-55-6	1,1,1-Trichloroethane	0.034	0.041	0.034	0.015	U
71-43-2	Benzene	0.069	0.12	0.068	0.024	J
56-23-5	Carbon Tetrachloride	0.096	0.041	0.034	0.012	
78-87-5	1,2-Dichloropropane	0.094	0.041	0.036	0.0099	
75-27-4	Bromodichloromethane	0.085	0.041	0.036	0.0095	
79-01-6	Trichloroethene	0.053	0.041	0.034	0.013	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01299

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.67 Final Pressure (psig): 4.43
 Initial Pressure 2 (psig): 1.80 Final Pressure 2 (psig): 3.57

Container Dilution Factor: 1.63

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.016	0.16	0.036	0.014	J
10061-01-5	cis-1,3-Dichloropropene	0.034	0.082	0.034	0.012	U
10061-02-6	trans-1,3-Dichloropropene	0.034	0.082	0.034	0.0078	U
79-00-5	1,1,2-Trichloroethane	0.034	0.16	0.034	0.0096	U
108-88-3	Toluene	0.45	0.16	0.070	0.020	
124-48-1	Dibromochloromethane	0.034	0.041	0.034	0.010	U
106-93-4	1,2-Dibromoethane	0.034	0.041	0.034	0.011	U
127-18-4	Tetrachloroethene	0.81	0.041	0.034	0.026	
108-90-7	Chlorobenzene	0.034	0.16	0.034	0.016	U
100-41-4	Ethylbenzene	0.058	0.16	0.034	0.020	J
179601-23-1	m,p-Xylenes	0.16	0.16	0.070	0.039	J
100-42-5	Styrene	0.034	0.16	0.034	0.020	U
95-47-6	o-Xylene	0.084	0.16	0.034	0.021	J
79-34-5	1,1,1,2-Tetrachloroethane	0.034	0.041	0.034	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.034	0.16	0.034	0.023	U
95-63-6	1,2,4-Trimethylbenzene	0.062	0.16	0.034	0.026	J
541-73-1	1,3-Dichlorobenzene	0.034	0.041	0.034	0.028	U
106-46-7	1,4-Dichlorobenzene	0.034	0.041	0.034	0.033	U
95-50-1	1,2-Dichlorobenzene	0.034	0.041	0.034	0.029	U
96-12-8	1,2-Dibromo-3-chloropropane	0.034	0.16	0.034	0.023	U
120-82-1	1,2,4-Trichlorobenzene	0.070	0.082	0.070	0.033	U
91-20-3	Naphthalene	0.061	0.16	0.067	0.036	J
87-68-3	Hexachlorobutadiene	0.034	0.16	0.034	0.021	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01529

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.53 Final Pressure (psig): 4.05
 Initial Pressure 2 (psig): 1.45 Final Pressure 2 (psig): 3.53

Container Dilution Factor: 1.74

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.087	0.073	0.015	
74-87-3	Chloromethane	0.073	0.087	0.073	0.045	U
75-01-4	Vinyl Chloride	0.038	0.044	0.038	0.021	U, V
106-99-0	1,3-Butadiene	0.073	0.087	0.073	0.014	U
74-83-9	Bromomethane	0.015	0.044	0.038	0.012	J
75-00-3	Chloroethane	0.038	0.044	0.038	0.014	U
107-02-8	Acrolein	0.31	0.35	0.17	0.061	J
67-64-1	Acetone	3.1	4.4	0.19	0.40	J
75-69-4	Trichlorofluoromethane	1.1	0.087	0.073	0.014	
75-35-4	1,1-Dichloroethene	0.038	0.044	0.038	0.015	U
75-09-2	Methylene Chloride	0.13	0.17	0.073	0.014	J
76-13-1	Trichlorotrifluoroethane	0.39	0.044	0.038	0.014	
156-60-5	trans-1,2-Dichloroethene	0.038	0.044	0.038	0.019	U
75-34-3	1,1-Dichloroethane	0.038	0.044	0.038	0.014	U
1634-04-4	Methyl tert-Butyl Ether	0.038	0.044	0.038	0.021	U
156-59-2	cis-1,2-Dichloroethene	0.037	0.044	0.037	0.013	U
67-66-3	Chloroform	0.15	0.17	0.075	0.014	J
107-06-2	1,2-Dichloroethane	0.038	0.044	0.038	0.014	U
71-55-6	1,1,1-Trichloroethane	0.037	0.044	0.037	0.016	U
71-43-2	Benzene	0.12	0.13	0.073	0.026	J
56-23-5	Carbon Tetrachloride	0.16	0.044	0.037	0.012	
78-87-5	1,2-Dichloropropane	0.038	0.044	0.038	0.011	U
75-27-4	Bromodichloromethane	0.038	0.044	0.038	0.010	U
79-01-6	Trichloroethene	0.042	0.044	0.037	0.013	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01529

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.53 Final Pressure (psig): 4.05
 Initial Pressure 2 (psig): 1.45 Final Pressure 2 (psig): 3.53

Container Dilution Factor: 1.74

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.030	0.17	0.038	0.015	J
10061-01-5	cis-1,3-Dichloropropene	0.037	0.087	0.037	0.012	U
10061-02-6	trans-1,3-Dichloropropene	0.037	0.087	0.037	0.0084	U
79-00-5	1,1,2-Trichloroethane	0.037	0.17	0.037	0.010	U
108-88-3	Toluene	0.34	0.17	0.075	0.021	
124-48-1	Dibromochloromethane	0.037	0.044	0.037	0.011	U
106-93-4	1,2-Dibromoethane	0.037	0.044	0.037	0.012	U
127-18-4	Tetrachloroethene	0.098	0.044	0.037	0.028	
108-90-7	Chlorobenzene	0.037	0.17	0.037	0.017	U
100-41-4	Ethylbenzene	0.080	0.17	0.037	0.021	J
179601-23-1	m,p-Xylenes	0.20	0.17	0.075	0.042	
100-42-5	Styrene	0.039	0.17	0.037	0.021	J
95-47-6	o-Xylene	0.11	0.17	0.037	0.023	J
79-34-5	1,1,1,2-Tetrachloroethane	0.037	0.044	0.037	0.015	U
108-67-8	1,3,5-Trimethylbenzene	0.037	0.17	0.037	0.024	U
95-63-6	1,2,4-Trimethylbenzene	0.10	0.17	0.037	0.028	J
541-73-1	1,3-Dichlorobenzene	0.037	0.044	0.037	0.030	U
106-46-7	1,4-Dichlorobenzene	0.037	0.044	0.037	0.035	U
95-50-1	1,2-Dichlorobenzene	0.037	0.044	0.037	0.031	U
96-12-8	1,2-Dibromo-3-chloropropane	0.037	0.17	0.037	0.024	U
120-82-1	1,2,4-Trichlorobenzene	0.075	0.087	0.075	0.035	U
91-20-3	Naphthalene	0.13	0.17	0.071	0.038	J
87-68-3	Hexachlorobutadiene	0.037	0.17	0.037	0.023	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01008

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.54 Final Pressure (psig): 4.10
 Initial Pressure 2 (psig): 1.52 Final Pressure 2 (psig): 3.86

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.089	0.074	0.015	
74-87-3	Chloromethane	0.074	0.089	0.074	0.046	U
75-01-4	Vinyl Chloride	0.039	0.044	0.039	0.021	U, V
106-99-0	1,3-Butadiene	0.074	0.089	0.074	0.014	U
74-83-9	Bromomethane	0.014	0.044	0.039	0.012	J
75-00-3	Chloroethane	0.016	0.044	0.039	0.014	J
107-02-8	Acrolein	0.35	0.35	0.18	0.062	J
67-64-1	Acetone	5.1	4.4	0.19	0.41	
75-69-4	Trichlorofluoromethane	1.1	0.089	0.074	0.014	
75-35-4	1,1-Dichloroethene	0.039	0.044	0.039	0.016	U
75-09-2	Methylene Chloride	0.15	0.18	0.074	0.014	J
76-13-1	Trichlorotrifluoroethane	0.36	0.044	0.039	0.014	
156-60-5	trans-1,2-Dichloroethene	0.039	0.044	0.039	0.019	U
75-34-3	1,1-Dichloroethane	0.039	0.044	0.039	0.015	U
1634-04-4	Methyl tert-Butyl Ether	0.039	0.044	0.039	0.021	U
156-59-2	cis-1,2-Dichloroethene	0.047	0.044	0.037	0.013	
67-66-3	Chloroform	0.14	0.18	0.076	0.014	J
107-06-2	1,2-Dichloroethane	0.022	0.044	0.039	0.015	J
71-55-6	1,1,1-Trichloroethane	0.037	0.044	0.037	0.016	U
71-43-2	Benzene	0.15	0.13	0.074	0.027	
56-23-5	Carbon Tetrachloride	0.14	0.044	0.037	0.013	
78-87-5	1,2-Dichloropropane	0.018	0.044	0.039	0.011	J
75-27-4	Bromodichloromethane	0.039	0.044	0.039	0.010	U
79-01-6	Trichloroethene	0.25	0.044	0.037	0.014	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01008

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.54 Final Pressure (psig): 4.10
 Initial Pressure 2 (psig): 1.52 Final Pressure 2 (psig): 3.86

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.024	0.18	0.039	0.015	J
10061-01-5	cis-1,3-Dichloropropene	0.037	0.089	0.037	0.013	U
10061-02-6	trans-1,3-Dichloropropene	0.037	0.089	0.037	0.0085	U
79-00-5	1,1,2-Trichloroethane	0.037	0.18	0.037	0.010	U
108-88-3	Toluene	1.2	0.18	0.076	0.021	
124-48-1	Dibromochloromethane	0.037	0.044	0.037	0.011	U
106-93-4	1,2-Dibromoethane	0.037	0.044	0.037	0.012	U
127-18-4	Tetrachloroethene	0.13	0.044	0.037	0.028	
108-90-7	Chlorobenzene	0.072	0.18	0.037	0.017	J
100-41-4	Ethylbenzene	0.22	0.18	0.037	0.021	
179601-23-1	m,p-Xylenes	0.54	0.18	0.076	0.042	
100-42-5	Styrene	0.12	0.18	0.037	0.021	J
95-47-6	o-Xylene	0.23	0.18	0.037	0.023	
79-34-5	1,1,1,2-Tetrachloroethane	0.037	0.044	0.037	0.015	U
108-67-8	1,3,5-Trimethylbenzene	0.046	0.18	0.037	0.025	J
95-63-6	1,2,4-Trimethylbenzene	0.25	0.18	0.037	0.028	
541-73-1	1,3-Dichlorobenzene	0.037	0.044	0.037	0.030	U
106-46-7	1,4-Dichlorobenzene	0.037	0.044	0.037	0.035	U
95-50-1	1,2-Dichlorobenzene	0.037	0.044	0.037	0.032	U
96-12-8	1,2-Dibromo-3-chloropropane	0.037	0.18	0.037	0.025	U
120-82-1	1,2,4-Trichlorobenzene	0.076	0.089	0.076	0.035	U
91-20-3	Naphthalene	0.18	0.18	0.073	0.039	
87-68-3	Hexachlorobutadiene	0.037	0.18	0.037	0.023	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00726

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.64 Final Pressure (psig): 4.04
 Initial Pressure 2 (psig): 0.93 Final Pressure 2 (psig): 3.74

Container Dilution Factor: 1.83

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.092	0.077	0.016	
74-87-3	Chloromethane	0.077	0.092	0.077	0.048	U
75-01-4	Vinyl Chloride	0.040	0.046	0.040	0.022	U, V
106-99-0	1,3-Butadiene	0.077	0.092	0.077	0.014	U
74-83-9	Bromomethane	0.016	0.046	0.040	0.012	J
75-00-3	Chloroethane	0.040	0.046	0.040	0.014	U
107-02-8	Acrolein	0.28	0.37	0.18	0.064	J
67-64-1	Acetone	3.0	4.6	0.20	0.42	J
75-69-4	Trichlorofluoromethane	1.2	0.092	0.077	0.015	
75-35-4	1,1-Dichloroethene	0.040	0.046	0.040	0.016	U
75-09-2	Methylene Chloride	0.096	0.18	0.077	0.014	J
76-13-1	Trichlorotrifluoroethane	0.38	0.046	0.040	0.015	
156-60-5	trans-1,2-Dichloroethene	0.040	0.046	0.040	0.020	U
75-34-3	1,1-Dichloroethane	0.040	0.046	0.040	0.015	U
1634-04-4	Methyl tert-Butyl Ether	0.040	0.046	0.040	0.022	U
156-59-2	cis-1,2-Dichloroethene	0.016	0.046	0.038	0.013	J
67-66-3	Chloroform	0.13	0.18	0.079	0.015	J
107-06-2	1,2-Dichloroethane	0.040	0.046	0.040	0.015	U
71-55-6	1,1,1-Trichloroethane	0.038	0.046	0.038	0.016	U
71-43-2	Benzene	0.53	0.14	0.077	0.027	
56-23-5	Carbon Tetrachloride	0.15	0.046	0.038	0.013	
78-87-5	1,2-Dichloropropane	0.017	0.046	0.040	0.011	J
75-27-4	Bromodichloromethane	0.019	0.046	0.040	0.011	J
79-01-6	Trichloroethene	0.081	0.046	0.038	0.014	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00726

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.64 Final Pressure (psig): 4.04
 Initial Pressure 2 (psig): 0.93 Final Pressure 2 (psig): 3.74

Container Dilution Factor: 1.83

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.040	0.18	0.040	0.016	U
10061-01-5	cis-1,3-Dichloropropene	0.038	0.092	0.038	0.013	U
10061-02-6	trans-1,3-Dichloropropene	0.038	0.092	0.038	0.0088	U
79-00-5	1,1,2-Trichloroethane	0.038	0.18	0.038	0.011	U
108-88-3	Toluene	0.57	0.18	0.079	0.022	
124-48-1	Dibromochloromethane	0.038	0.046	0.038	0.012	U
106-93-4	1,2-Dibromoethane	0.038	0.046	0.038	0.012	U
127-18-4	Tetrachloroethene	0.15	0.046	0.038	0.029	
108-90-7	Chlorobenzene	0.043	0.18	0.038	0.018	J
100-41-4	Ethylbenzene	0.20	0.18	0.038	0.022	
179601-23-1	m,p-Xylenes	0.52	0.18	0.079	0.044	
100-42-5	Styrene	0.048	0.18	0.038	0.022	J
95-47-6	o-Xylene	0.23	0.18	0.038	0.024	
79-34-5	1,1,1,2-Tetrachloroethane	0.038	0.046	0.038	0.016	U
108-67-8	1,3,5-Trimethylbenzene	0.080	0.18	0.038	0.026	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.18	0.038	0.029	
541-73-1	1,3-Dichlorobenzene	0.038	0.046	0.038	0.031	U
106-46-7	1,4-Dichlorobenzene	0.038	0.046	0.038	0.037	U
95-50-1	1,2-Dichlorobenzene	0.038	0.046	0.038	0.033	U
96-12-8	1,2-Dibromo-3-chloropropane	0.038	0.18	0.038	0.026	U
120-82-1	1,2,4-Trichlorobenzene	0.079	0.092	0.079	0.037	U
91-20-3	Naphthalene	0.15	0.18	0.075	0.040	J
87-68-3	Hexachlorobutadiene	0.038	0.18	0.038	0.024	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02406

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.46 Final Pressure (psig): 4.15
 Initial Pressure 2 (psig): 1.64 Final Pressure 2 (psig): 3.86

Container Dilution Factor: 1.75

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.8	0.088	0.074	0.015	
74-87-3	Chloromethane	0.074	0.088	0.074	0.046	U
75-01-4	Vinyl Chloride	0.039	0.044	0.039	0.021	U, V
106-99-0	1,3-Butadiene	0.074	0.088	0.074	0.014	U
74-83-9	Bromomethane	0.014	0.044	0.039	0.012	J
75-00-3	Chloroethane	0.039	0.044	0.039	0.014	U
107-02-8	Acrolein	0.11	0.35	0.18	0.061	J
67-64-1	Acetone	1.8	4.4	0.19	0.40	J
75-69-4	Trichlorofluoromethane	1.3	0.088	0.074	0.014	
75-35-4	1,1-Dichloroethene	0.039	0.044	0.039	0.015	U
75-09-2	Methylene Chloride	0.11	0.18	0.074	0.014	J
76-13-1	Trichlorotrifluoroethane	16	0.044	0.039	0.014	
156-60-5	trans-1,2-Dichloroethene	0.039	0.044	0.039	0.019	U
75-34-3	1,1-Dichloroethane	0.039	0.044	0.039	0.014	U
1634-04-4	Methyl tert-Butyl Ether	0.039	0.044	0.039	0.021	U
156-59-2	cis-1,2-Dichloroethene	0.037	0.044	0.037	0.013	U
67-66-3	Chloroform	0.21	0.18	0.075	0.014	
107-06-2	1,2-Dichloroethane	0.039	0.044	0.039	0.015	U
71-55-6	1,1,1-Trichloroethane	0.037	0.044	0.037	0.016	U
71-43-2	Benzene	0.072	0.13	0.074	0.026	J
56-23-5	Carbon Tetrachloride	3.9	0.044	0.037	0.012	
78-87-5	1,2-Dichloropropane	0.020	0.044	0.039	0.011	J
75-27-4	Bromodichloromethane	0.056	0.044	0.039	0.010	
79-01-6	Trichloroethene	0.14	0.044	0.037	0.013	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02406

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.46 Final Pressure (psig): 4.15
 Initial Pressure 2 (psig): 1.64 Final Pressure 2 (psig): 3.86

Container Dilution Factor: 1.75

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.039	0.18	0.039	0.015	U
10061-01-5	cis-1,3-Dichloropropene	0.037	0.088	0.037	0.012	U
10061-02-6	trans-1,3-Dichloropropene	0.037	0.088	0.037	0.0084	U
79-00-5	1,1,2-Trichloroethane	0.037	0.18	0.037	0.010	U
108-88-3	Toluene	0.60	0.18	0.075	0.021	
124-48-1	Dibromochloromethane	0.037	0.044	0.037	0.011	U
106-93-4	1,2-Dibromoethane	0.037	0.044	0.037	0.012	U
127-18-4	Tetrachloroethene	0.71	0.044	0.037	0.028	
108-90-7	Chlorobenzene	0.037	0.18	0.037	0.017	U
100-41-4	Ethylbenzene	0.12	0.18	0.037	0.021	J
179601-23-1	m,p-Xylenes	0.34	0.18	0.075	0.042	
100-42-5	Styrene	0.10	0.18	0.037	0.021	J
95-47-6	o-Xylene	0.24	0.18	0.037	0.023	
79-34-5	1,1,1,2-Tetrachloroethane	0.037	0.044	0.037	0.015	U
108-67-8	1,3,5-Trimethylbenzene	0.037	0.18	0.037	0.025	J
95-63-6	1,2,4-Trimethylbenzene	0.17	0.18	0.037	0.028	J
541-73-1	1,3-Dichlorobenzene	0.037	0.044	0.037	0.030	U
106-46-7	1,4-Dichlorobenzene	0.061	0.044	0.037	0.035	
95-50-1	1,2-Dichlorobenzene	0.037	0.044	0.037	0.032	U
96-12-8	1,2-Dibromo-3-chloropropane	0.037	0.18	0.037	0.025	U
120-82-1	1,2,4-Trichlorobenzene	0.075	0.088	0.075	0.035	U
91-20-3	Naphthalene	0.24	0.18	0.072	0.039	
87-68-3	Hexachlorobutadiene	0.037	0.18	0.037	0.023	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01620

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -2.34 Final Pressure (psig): 3.91
 Initial Pressure 2 (psig): 1.01 Final Pressure 2 (psig): 3.76

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.8	0.12	0.099	0.020	
74-87-3	Chloromethane	0.099	0.12	0.099	0.061	U
75-01-4	Vinyl Chloride	0.052	0.059	0.052	0.028	U, V
106-99-0	1,3-Butadiene	0.099	0.12	0.099	0.019	U
74-83-9	Bromomethane	0.052	0.059	0.052	0.016	U
75-00-3	Chloroethane	0.052	0.059	0.052	0.018	U
107-02-8	Acrolein	0.28	0.47	0.24	0.083	J
67-64-1	Acetone	4.2	5.9	0.26	0.54	J
75-69-4	Trichlorofluoromethane	1.6	0.12	0.099	0.019	
75-35-4	1,1-Dichloroethene	0.052	0.059	0.052	0.021	U
75-09-2	Methylene Chloride	0.67	0.24	0.099	0.018	
76-13-1	Trichlorotrifluoroethane	26	0.059	0.052	0.019	
156-60-5	trans-1,2-Dichloroethene	0.052	0.059	0.052	0.026	U
75-34-3	1,1-Dichloroethane	0.052	0.059	0.052	0.019	U
1634-04-4	Methyl tert-Butyl Ether	0.052	0.059	0.052	0.028	U
156-59-2	cis-1,2-Dichloroethene	0.050	0.059	0.050	0.017	U
67-66-3	Chloroform	0.70	0.24	0.10	0.019	
107-06-2	1,2-Dichloroethane	0.052	0.059	0.052	0.020	U
71-55-6	1,1,1-Trichloroethane	0.050	0.059	0.050	0.021	U
71-43-2	Benzene	0.19	0.18	0.099	0.035	
56-23-5	Carbon Tetrachloride	6.3	0.059	0.050	0.017	
78-87-5	1,2-Dichloropropane	0.015	0.059	0.052	0.014	J
75-27-4	Bromodichloromethane	0.20	0.059	0.052	0.014	
79-01-6	Trichloroethene	0.068	0.059	0.050	0.018	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01620

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -2.34 Final Pressure (psig): 3.91
 Initial Pressure 2 (psig): 1.01 Final Pressure 2 (psig): 3.76

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.052	0.24	0.052	0.021	U
10061-01-5	cis-1,3-Dichloropropene	0.050	0.12	0.050	0.017	U
10061-02-6	trans-1,3-Dichloropropene	0.050	0.12	0.050	0.011	U
79-00-5	1,1,2-Trichloroethane	0.050	0.24	0.050	0.014	U
108-88-3	Toluene	1.1	0.24	0.10	0.028	
124-48-1	Dibromochloromethane	0.026	0.059	0.050	0.015	J
106-93-4	1,2-Dibromoethane	0.050	0.059	0.050	0.016	U
127-18-4	Tetrachloroethene	0.76	0.059	0.050	0.038	
108-90-7	Chlorobenzene	0.050	0.24	0.050	0.023	U
100-41-4	Ethylbenzene	0.60	0.24	0.050	0.028	
179601-23-1	m,p-Xylenes	1.6	0.24	0.10	0.057	
100-42-5	Styrene	0.064	0.24	0.050	0.028	J
95-47-6	o-Xylene	0.65	0.24	0.050	0.031	
79-34-5	1,1,1,2-Tetrachloroethane	0.050	0.059	0.050	0.021	U
108-67-8	1,3,5-Trimethylbenzene	0.050	0.24	0.050	0.033	U
95-63-6	1,2,4-Trimethylbenzene	0.96	0.24	0.050	0.038	
541-73-1	1,3-Dichlorobenzene	0.050	0.059	0.050	0.040	U
106-46-7	1,4-Dichlorobenzene	0.051	0.059	0.050	0.047	J
95-50-1	1,2-Dichlorobenzene	0.050	0.059	0.050	0.042	U
96-12-8	1,2-Dibromo-3-chloropropane	0.050	0.24	0.050	0.033	U
120-82-1	1,2,4-Trichlorobenzene	0.10	0.12	0.10	0.047	U
91-20-3	Naphthalene	0.19	0.24	0.097	0.052	J
87-68-3	Hexachlorobutadiene	0.050	0.24	0.050	0.031	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01932

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.50 Liter(s)

Initial Pressure (psig): -2.26 Final Pressure (psig): 4.04
 Initial Pressure 2 (psig): 1.51 Final Pressure 2 (psig): 3.62

Container Dilution Factor: 1.70

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	0.17	0.14	0.029	
74-87-3	Chloromethane	0.14	0.17	0.14	0.088	U
75-01-4	Vinyl Chloride	0.075	0.085	0.075	0.041	U, V
106-99-0	1,3-Butadiene	0.14	0.17	0.14	0.027	U
74-83-9	Bromomethane	0.071	0.085	0.075	0.023	J
75-00-3	Chloroethane	0.075	0.085	0.075	0.027	U
107-02-8	Acrolein	0.23	0.68	0.34	0.12	J
67-64-1	Acetone	4.0	8.5	0.37	0.78	J
75-69-4	Trichlorofluoromethane	2.1	0.17	0.14	0.028	
75-35-4	1,1-Dichloroethene	0.075	0.085	0.075	0.030	U
75-09-2	Methylene Chloride	0.079	0.34	0.14	0.027	J
76-13-1	Trichlorotrifluoroethane	50	0.085	0.075	0.028	
156-60-5	trans-1,2-Dichloroethene	0.075	0.085	0.075	0.037	U
75-34-3	1,1-Dichloroethane	0.075	0.085	0.075	0.028	U
1634-04-4	Methyl tert-Butyl Ether	0.075	0.085	0.075	0.041	U
156-59-2	cis-1,2-Dichloroethene	0.071	0.085	0.071	0.024	U
67-66-3	Chloroform	1.7	0.34	0.15	0.027	
107-06-2	1,2-Dichloroethane	0.075	0.085	0.075	0.028	U
71-55-6	1,1,1-Trichloroethane	0.071	0.085	0.071	0.031	U
71-43-2	Benzene	0.16	0.26	0.14	0.051	J
56-23-5	Carbon Tetrachloride	12	0.085	0.071	0.024	
78-87-5	1,2-Dichloropropane	0.075	0.085	0.075	0.021	U
75-27-4	Bromodichloromethane	0.39	0.085	0.075	0.020	
79-01-6	Trichloroethene	0.044	0.085	0.071	0.026	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01932

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.50 Liter(s)

Initial Pressure (psig): -2.26 Final Pressure (psig): 4.04
 Initial Pressure 2 (psig): 1.51 Final Pressure 2 (psig): 3.62

Container Dilution Factor: 1.70

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.031	0.34	0.075	0.030	J
10061-01-5	cis-1,3-Dichloropropene	0.071	0.17	0.071	0.024	U
10061-02-6	trans-1,3-Dichloropropene	0.071	0.17	0.071	0.016	U
79-00-5	1,1,2-Trichloroethane	0.071	0.34	0.071	0.020	U
108-88-3	Toluene	0.27	0.34	0.15	0.041	J
124-48-1	Dibromochloromethane	0.043	0.085	0.071	0.022	J
106-93-4	1,2-Dibromoethane	0.071	0.085	0.071	0.023	U
127-18-4	Tetrachloroethene	0.49	0.085	0.071	0.054	U
108-90-7	Chlorobenzene	0.071	0.34	0.071	0.033	U
100-41-4	Ethylbenzene	0.11	0.34	0.071	0.041	J
179601-23-1	m,p-Xylenes	0.24	0.34	0.15	0.082	J
100-42-5	Styrene	0.071	0.34	0.071	0.041	U
95-47-6	o-Xylene	0.11	0.34	0.071	0.044	J
79-34-5	1,1,1,2-Tetrachloroethane	0.071	0.085	0.071	0.030	U
108-67-8	1,3,5-Trimethylbenzene	0.071	0.34	0.071	0.048	U
95-63-6	1,2,4-Trimethylbenzene	0.092	0.34	0.071	0.054	J
541-73-1	1,3-Dichlorobenzene	0.071	0.085	0.071	0.058	U
106-46-7	1,4-Dichlorobenzene	0.071	0.085	0.071	0.068	U
95-50-1	1,2-Dichlorobenzene	0.071	0.085	0.071	0.061	U
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.34	0.071	0.048	U
120-82-1	1,2,4-Trichlorobenzene	0.15	0.17	0.15	0.068	U
91-20-3	Naphthalene	0.11	0.34	0.14	0.075	J
87-68-3	Hexachlorobutadiene	0.071	0.34	0.071	0.044	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02382

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -2.23 Final Pressure (psig): 4.00
 Initial Pressure 2 (psig): 1.45 Final Pressure 2 (psig): 3.87

Container Dilution Factor: 1.72

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.11	0.096	0.019	
74-87-3	Chloromethane	0.096	0.11	0.096	0.060	U
75-01-4	Vinyl Chloride	0.050	0.057	0.050	0.028	U, V
106-99-0	1,3-Butadiene	0.096	0.11	0.096	0.018	U
74-83-9	Bromomethane	0.050	0.057	0.050	0.015	U
75-00-3	Chloroethane	0.050	0.057	0.050	0.018	U
107-02-8	Acrolein	0.11	0.46	0.23	0.080	J
67-64-1	Acetone	1.8	5.7	0.25	0.53	J
75-69-4	Trichlorofluoromethane	0.95	0.11	0.096	0.019	
75-35-4	1,1-Dichloroethene	0.050	0.057	0.050	0.020	U
75-09-2	Methylene Chloride	0.091	0.23	0.096	0.018	J
76-13-1	Trichlorotrifluoroethane	0.46	0.057	0.050	0.019	
156-60-5	trans-1,2-Dichloroethene	0.050	0.057	0.050	0.025	U
75-34-3	1,1-Dichloroethane	0.050	0.057	0.050	0.019	U
1634-04-4	Methyl tert-Butyl Ether	0.050	0.057	0.050	0.028	U
156-59-2	cis-1,2-Dichloroethene	0.048	0.057	0.048	0.017	U
67-66-3	Chloroform	0.20	0.23	0.099	0.018	J
107-06-2	1,2-Dichloroethane	0.050	0.057	0.050	0.019	U
71-55-6	1,1,1-Trichloroethane	0.048	0.057	0.048	0.021	U
71-43-2	Benzene	0.052	0.17	0.096	0.034	J
56-23-5	Carbon Tetrachloride	0.27	0.057	0.048	0.016	
78-87-5	1,2-Dichloropropane	0.050	0.057	0.050	0.014	U
75-27-4	Bromodichloromethane	0.071	0.057	0.050	0.013	
79-01-6	Trichloroethene	0.080	0.057	0.048	0.018	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-5
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02382

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -2.23 Final Pressure (psig): 4.00
 Initial Pressure 2 (psig): 1.45 Final Pressure 2 (psig): 3.87

Container Dilution Factor: 1.72

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.050	0.23	0.050	0.020	U
10061-01-5	cis-1,3-Dichloropropene	0.048	0.11	0.048	0.016	U
10061-02-6	trans-1,3-Dichloropropene	0.048	0.11	0.048	0.011	U
79-00-5	1,1,2-Trichloroethane	0.048	0.23	0.048	0.014	U
108-88-3	Toluene	0.47	0.23	0.099	0.028	
124-48-1	Dibromochloromethane	0.048	0.057	0.048	0.015	U
106-93-4	1,2-Dibromoethane	0.048	0.057	0.048	0.015	U
127-18-4	Tetrachloroethene	0.28	0.057	0.048	0.037	
108-90-7	Chlorobenzene	0.048	0.23	0.048	0.022	U
100-41-4	Ethylbenzene	0.16	0.23	0.048	0.028	J
179601-23-1	m,p-Xylenes	0.45	0.23	0.099	0.055	
100-42-5	Styrene	0.17	0.23	0.048	0.028	J
95-47-6	o-Xylene	0.34	0.23	0.048	0.030	
79-34-5	1,1,1,2-Tetrachloroethane	0.048	0.057	0.048	0.020	U
108-67-8	1,3,5-Trimethylbenzene	0.044	0.23	0.048	0.032	J
95-63-6	1,2,4-Trimethylbenzene	0.22	0.23	0.048	0.037	J
541-73-1	1,3-Dichlorobenzene	0.048	0.057	0.048	0.039	U
106-46-7	1,4-Dichlorobenzene	0.063	0.057	0.048	0.046	
95-50-1	1,2-Dichlorobenzene	0.048	0.057	0.048	0.041	U
96-12-8	1,2-Dibromo-3-chloropropane	0.048	0.23	0.048	0.032	U
120-82-1	1,2,4-Trichlorobenzene	0.099	0.11	0.099	0.046	U
91-20-3	Naphthalene	0.20	0.23	0.094	0.050	J
87-68-3	Hexachlorobutadiene	0.048	0.23	0.048	0.030	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-010

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01480

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -2.23 Final Pressure (psig): 3.92
 Initial Pressure 2 (psig): 1.35 Final Pressure 2 (psig): 3.71

Container Dilution Factor: 1.71

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.11	0.096	0.019	
74-87-3	Chloromethane	0.096	0.11	0.096	0.059	U
75-01-4	Vinyl Chloride	0.050	0.057	0.050	0.027	U, V
106-99-0	1,3-Butadiene	0.096	0.11	0.096	0.018	U
74-83-9	Bromomethane	0.020	0.057	0.050	0.015	J
75-00-3	Chloroethane	0.050	0.057	0.050	0.018	U
107-02-8	Acrolein	0.098	0.46	0.23	0.080	J
67-64-1	Acetone	2.0	5.7	0.25	0.52	J
75-69-4	Trichlorofluoromethane	0.96	0.11	0.096	0.018	
75-35-4	1,1-Dichloroethene	0.050	0.057	0.050	0.020	U
75-09-2	Methylene Chloride	0.089	0.23	0.096	0.018	J
76-13-1	Trichlorotrifluoroethane	0.48	0.057	0.050	0.018	
156-60-5	trans-1,2-Dichloroethene	0.050	0.057	0.050	0.025	U
75-34-3	1,1-Dichloroethane	0.050	0.057	0.050	0.019	U
1634-04-4	Methyl tert-Butyl Ether	0.050	0.057	0.050	0.027	U
156-59-2	cis-1,2-Dichloroethene	0.048	0.057	0.048	0.016	U
67-66-3	Chloroform	0.26	0.23	0.098	0.018	
107-06-2	1,2-Dichloroethane	0.050	0.057	0.050	0.019	U
71-55-6	1,1,1-Trichloroethane	0.048	0.057	0.048	0.021	U
71-43-2	Benzene	0.061	0.17	0.096	0.034	J
56-23-5	Carbon Tetrachloride	0.26	0.057	0.048	0.016	
78-87-5	1,2-Dichloropropane	0.050	0.057	0.050	0.014	U
75-27-4	Bromodichloromethane	0.088	0.057	0.050	0.013	
79-01-6	Trichloroethene	0.065	0.057	0.048	0.018	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-10
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-010

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01480

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -2.23 Final Pressure (psig): 3.92
 Initial Pressure 2 (psig): 1.35 Final Pressure 2 (psig): 3.71

Container Dilution Factor: 1.71

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.050	0.23	0.050	0.020	U
10061-01-5	cis-1,3-Dichloropropene	0.048	0.11	0.048	0.016	U
10061-02-6	trans-1,3-Dichloropropene	0.048	0.11	0.048	0.011	U
79-00-5	1,1,2-Trichloroethane	0.048	0.23	0.048	0.013	U
108-88-3	Toluene	0.44	0.23	0.098	0.027	
124-48-1	Dibromochloromethane	0.048	0.057	0.048	0.015	U
106-93-4	1,2-Dibromoethane	0.048	0.057	0.048	0.015	U
127-18-4	Tetrachloroethene	0.32	0.057	0.048	0.036	
108-90-7	Chlorobenzene	0.048	0.23	0.048	0.022	U
100-41-4	Ethylbenzene	0.14	0.23	0.048	0.027	J
179601-23-1	m,p-Xylenes	0.46	0.23	0.098	0.055	
100-42-5	Styrene	0.064	0.23	0.048	0.027	J
95-47-6	o-Xylene	0.31	0.23	0.048	0.030	
79-34-5	1,1,1,2-Tetrachloroethane	0.048	0.057	0.048	0.020	U
108-67-8	1,3,5-Trimethylbenzene	0.078	0.23	0.048	0.032	J
95-63-6	1,2,4-Trimethylbenzene	0.32	0.23	0.048	0.036	
541-73-1	1,3-Dichlorobenzene	0.048	0.057	0.048	0.039	U
106-46-7	1,4-Dichlorobenzene	0.096	0.057	0.048	0.046	
95-50-1	1,2-Dichlorobenzene	0.048	0.057	0.048	0.041	U
96-12-8	1,2-Dibromo-3-chloropropane	0.048	0.23	0.048	0.032	U
120-82-1	1,2,4-Trichlorobenzene	0.098	0.11	0.098	0.046	U
91-20-3	Naphthalene	0.17	0.23	0.093	0.050	J
87-68-3	Hexachlorobutadiene	0.048	0.23	0.048	0.030	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-011

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00655

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/23/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -1.94 Final Pressure (psig): 4.14
 Initial Pressure 2 (psig): 1.46 Final Pressure 2 (psig): 4.17

Container Dilution Factor: 1.72

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.7	0.11	0.096	0.019	
74-87-3	Chloromethane	0.096	0.11	0.096	0.060	U
75-01-4	Vinyl Chloride	0.050	0.057	0.050	0.028	U, V
106-99-0	1,3-Butadiene	0.096	0.11	0.096	0.018	U
74-83-9	Bromomethane	0.020	0.057	0.050	0.015	J
75-00-3	Chloroethane	0.050	0.057	0.050	0.018	U
107-02-8	Acrolein	0.46	0.46	0.23	0.080	
67-64-1	Acetone	4.8	5.7	0.25	0.53	J
75-69-4	Trichlorofluoromethane	0.89	0.11	0.096	0.019	
75-35-4	1,1-Dichloroethene	0.050	0.057	0.050	0.020	U
75-09-2	Methylene Chloride	0.24	0.23	0.096	0.018	
76-13-1	Trichlorotrifluoroethane	0.47	0.057	0.050	0.019	
156-60-5	trans-1,2-Dichloroethene	0.050	0.057	0.050	0.025	U
75-34-3	1,1-Dichloroethane	0.050	0.057	0.050	0.019	U
1634-04-4	Methyl tert-Butyl Ether	0.050	0.057	0.050	0.028	U
156-59-2	cis-1,2-Dichloroethene	0.048	0.057	0.048	0.017	U
67-66-3	Chloroform	0.29	0.23	0.099	0.018	
107-06-2	1,2-Dichloroethane	0.050	0.057	0.050	0.019	U
71-55-6	1,1,1-Trichloroethane	0.048	0.057	0.048	0.021	U
71-43-2	Benzene	0.12	0.17	0.096	0.034	J
56-23-5	Carbon Tetrachloride	0.23	0.057	0.048	0.016	
78-87-5	1,2-Dichloropropane	0.019	0.057	0.050	0.014	J
75-27-4	Bromodichloromethane	0.082	0.057	0.050	0.013	
79-01-6	Trichloroethene	0.097	0.057	0.048	0.018	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-15
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P2200932-011

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00655

Date Collected: 3/1/22
 Date Received: 3/2/22
 Date Analyzed: 3/23/22
 Volume(s) Analyzed: 0.75 Liter(s)

Initial Pressure (psig): -1.94 Final Pressure (psig): 4.14
 Initial Pressure 2 (psig): 1.46 Final Pressure 2 (psig): 4.17

Container Dilution Factor: 1.72

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.050	0.23	0.050	0.020	U
10061-01-5	cis-1,3-Dichloropropene	0.048	0.11	0.048	0.016	U
10061-02-6	trans-1,3-Dichloropropene	0.048	0.11	0.048	0.011	U
79-00-5	1,1,2-Trichloroethane	0.048	0.23	0.048	0.014	U
108-88-3	Toluene	0.67	0.23	0.099	0.028	
124-48-1	Dibromochloromethane	0.048	0.057	0.048	0.015	U
106-93-4	1,2-Dibromoethane	0.048	0.057	0.048	0.015	U
127-18-4	Tetrachloroethene	0.34	0.057	0.048	0.037	
108-90-7	Chlorobenzene	0.048	0.23	0.048	0.022	U
100-41-4	Ethylbenzene	0.22	0.23	0.048	0.028	J
179601-23-1	m,p-Xylenes	0.74	0.23	0.099	0.055	
100-42-5	Styrene	0.10	0.23	0.048	0.028	J
95-47-6	o-Xylene	0.41	0.23	0.048	0.030	
79-34-5	1,1,1,2-Tetrachloroethane	0.048	0.057	0.048	0.020	U
108-67-8	1,3,5-Trimethylbenzene	0.11	0.23	0.048	0.032	J
95-63-6	1,2,4-Trimethylbenzene	0.41	0.23	0.048	0.037	
541-73-1	1,3-Dichlorobenzene	0.048	0.057	0.048	0.039	U
106-46-7	1,4-Dichlorobenzene	0.080	0.057	0.048	0.046	
95-50-1	1,2-Dichlorobenzene	0.048	0.057	0.048	0.041	U
96-12-8	1,2-Dibromo-3-chloropropane	0.048	0.23	0.048	0.032	U
120-82-1	1,2,4-Trichlorobenzene	0.099	0.11	0.099	0.046	U
91-20-3	Naphthalene	0.11	0.23	0.094	0.050	J
87-68-3	Hexachlorobutadiene	0.048	0.23	0.048	0.030	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220322-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.042	0.050	0.042	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.022	0.025	0.022	0.012	U, V
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.11	2.5	0.11	0.23	U
75-69-4	Trichlorofluoromethane	0.042	0.050	0.042	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

V = The continuing calibration verification and the ending continuing calibration verification standards were outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220322-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.043	0.10	0.043	0.012	U
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.016	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.021	0.10	0.021	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)
 Test Notes:

Date(s) Collected: 3/1/22
 Date(s) Received: 3/2/22
 Date(s) Analyzed: 3/22 - 3/23/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		% Recovered	% Recovered	% Recovered		
Method Blank	P220322-MB	93	100	107	70-130	
Lab Control Sample	P220322-LCS	93	98	114	70-130	
Duplicate Lab Control Sample	P220322-DLCS	93	99	114	70-130	
DUPE-15	P2200932-001	94	98	111	70-130	
DUPE-10	P2200932-002	94	99	111	70-130	
SVMW-22-5	P2200932-003	94	100	112	70-130	
SVMW-22-10	P2200932-004	94	99	111	70-130	
SVMW-22-15	P2200932-005	95	100	111	70-130	
SVMW-16-5	P2200932-006	95	100	110	70-130	
SVMW-16-10	P2200932-007	97	100	112	70-130	
SVMW-16-15	P2200932-008	96	100	113	70-130	
SVMW-17-5	P2200932-009	96	100	111	70-130	
SVMW-17-10	P2200932-010	96	101	111	70-130	
SVMW-17-15	P2200932-011	96	101	111	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220322-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	18.8	18.8	90	90	59-128	0	25	
74-87-3	Chloromethane	20.6	20.0	19.8	97	96	59-132	1	25	
75-01-4	Vinyl Chloride	20.8	15.1	15.0	73	72	64-127	1	25	
106-99-0	1,3-Butadiene	20.6	23.1	23.2	112	113	66-134	0.9	25	
74-83-9	Bromomethane	20.6	20.2	20.2	98	98	63-134	0	25	
75-00-3	Chloroethane	20.6	22.2	22.1	108	107	63-127	0.9	25	
107-02-8	Acrolein	41.6	45.6	45.6	110	110	62-126	0	25	
67-64-1	Acetone	102	112	111	110	109	58-128	0.9	25	
75-69-4	Trichlorofluoromethane	20.2	18.4	18.2	91	90	62-126	1	25	
75-35-4	1,1-Dichloroethene	21.0	20.7	20.5	99	98	61-133	1	25	
75-09-2	Methylene Chloride	20.8	18.8	18.7	90	90	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	20.6	20.5	95	95	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	20.4	20.3	98	98	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.4	20.8	20.6	97	96	68-126	1	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	20.7	20.8	100	101	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	20.6	20.2	20.0	98	97	70-121	1	25	
67-66-3	Chloroform	21.0	18.8	18.7	90	89	68-123	1	25	
107-06-2	1,2-Dichloroethane	21.0	18.7	18.6	89	89	65-128	0	25	
71-55-6	1,1,1-Trichloroethane	20.8	18.3	18.2	88	88	68-125	0	25	
71-43-2	Benzene	20.8	19.6	19.5	94	94	69-119	0	25	
56-23-5	Carbon Tetrachloride	20.2	17.5	17.4	87	86	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	19.3	19.2	94	93	69-123	1	25	
75-27-4	Bromodichloromethane	20.8	17.6	17.6	85	85	72-128	0	25	
79-01-6	Trichloroethene	20.4	18.9	18.8	93	92	71-123	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200932
 ALS Sample ID: P220322-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/22/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
123-91-1	1,4-Dioxane	20.6	19.7	19.5	96	95	71-122	1	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	20.1	20.1	97	97	70-128	0	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	19.2	19.4	96	97	75-133	1	25	
79-00-5	1,1,2-Trichloroethane	20.8	17.8	17.8	86	86	73-119	0	25	
108-88-3	Toluene	20.6	17.8	17.7	86	86	66-119	0	25	
124-48-1	Dibromochloromethane	21.0	17.3	17.2	82	82	70-130	0	25	
106-93-4	1,2-Dibromoethane	20.8	18.0	18.0	87	87	74-122	0	25	
127-18-4	Tetrachloroethene	21.2	18.3	18.3	86	86	66-124	0	25	
108-90-7	Chlorobenzene	20.6	18.1	18.0	88	87	70-119	1	25	
100-41-4	Ethylbenzene	20.6	19.1	19.1	93	93	70-124	0	25	
179601-23-1	m,p-Xylenes	41.6	38.2	38.2	92	92	61-134	0	25	
100-42-5	Styrene	20.2	20.9	21.0	103	104	73-127	1	25	
95-47-6	o-Xylene	20.8	19.5	19.4	94	93	67-125	1	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	17.7	17.7	85	85	65-127	0	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	18.8	18.9	90	91	67-130	1	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	18.6	18.7	90	91	66-132	1	25	
541-73-1	1,3-Dichlorobenzene	20.8	18.2	18.3	88	88	65-130	0	25	
106-46-7	1,4-Dichlorobenzene	21.0	17.3	17.4	82	83	60-131	1	25	
95-50-1	1,2-Dichlorobenzene	21.0	17.4	17.5	83	83	63-129	0	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	36.4	36.7	90	91	64-143	1	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	34.0	34.6	81	82	55-142	1	25	
91-20-3	Naphthalene	21.0	16.0	16.3	76	78	57-138	3	25	
87-68-3	Hexachlorobutadiene	21.2	21.2	21.5	100	101	56-138	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio Zavala
Sample Type: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 03222204.D
Date Analyzed: 3/22/22
Time Analyzed: 05:57

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220322-LCS	03222205.D	06:28
Duplicate Lab Control Sample	P220322-DLCS	03222206.D	06:59
DUPE-15	P2200932-001	03222224.D	18:51
DUPE-10	P2200932-002	03222225.D	19:23
SVMW-22-5	P2200932-003	03222226.D	19:57
SVMW-22-10	P2200932-004	03222227.D	20:28
SVMW-22-15	P2200932-005	03222228.D	21:02
SVMW-16-5	P2200932-006	03222229.D	21:33
SVMW-16-10	P2200932-007	03222230.D	22:04
SVMW-16-15	P2200932-008	03222231.D	22:36
SVMW-17-5	P2200932-009	03222232.D	23:06
SVMW-17-10	P2200932-010	03222233.D	23:37
SVMW-17-15	P2200932-011	03222234.D	00:08

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200932

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 03222202.D
 Date Analyzed: 3/22/22
 Time Analyzed: 04:54

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	29449	9.61	143841	11.56	27542	15.90
Upper Limit	41229	9.94	201377	11.89	38559	16.23
Lower Limit	17669	9.28	86305	11.23	16525	15.57

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	28504	9.63	135905	11.57	26423	15.91
02	Lab Control Sample	27648	9.61	132445	11.56	25286	15.90
03	Duplicate Lab Control Sample	26097	9.61	125435	11.57	24040	15.90
04	DUPE-15	33106	9.61	162200	11.56	32613	15.90
05	DUPE-10	32514	9.61	157343	11.56	30953	15.90
06	SVMW-22-5	31474	9.61	152343	11.56	30744	15.90
07	SVMW-22-10	32295	9.61	157911	11.56	32040	15.90
08	SVMW-22-15	32078	9.61	155910	11.56	31993	15.90
09	SVMW-16-5	32297	9.61	158304	11.56	33304	15.90
10	SVMW-16-10	32632	9.61	161356	11.56	32934	15.90
11	SVMW-16-15	31950	9.61	158110	11.56	31963	15.90
12	SVMW-17-5	31519	9.61	153583	11.56	32522	15.90
13	SVMW-17-10	31667	9.61	154872	11.56	32409	15.90
14	SVMW-17-15	31793	9.61	156267	11.56	33590	15.90
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.



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LABORATORY REPORT

September 9, 2022

Jessie Moore
HazAir
1717 Louisiana Blvd. NE, Ste. 116
Albuquerque, NM 87110

RE: BFF

Dear Jessie:

Enclosed are the results of the samples submitted to our laboratory on March 3, 2022. Sample BKGD-030222 was sent out for analysis to Atmospheric Analysis & Consulting, Inc. Please find their report (Project No.: 220443) attached. For your reference, these analyses have been assigned our service request number P2200974.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental



By Sue Anderson at 7:51 am, Sep 09, 2022

Sue Anderson
Project Manager



Client: HazAir
Project: BFF

Service Request No: P2200974

CASE NARRATIVE

The samples were received intact under chain of custody on March 2, 2022 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

Volatile Organic Compound Analysis

The samples were analyzed in both scan and SIM mode for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

Manual integrations were performed on the following sample(s) and analyte(s). Refer to the raw data for additional information.

Sample Identification(s)	Analyte(s)
P2200974-002	Acetone
P2200974-004	Bromodichloromethane

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.3 compliance canisters were cleaned to <1/2 the MRL. The canister for sample DUPE-5 (P2200974-001) was greater than the 1/2 criteria for benzene; canister for SVMW-18-5 (P220974-002) was greater than 1/2 criteria for



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Client: HazAir
Project: BFF

Service Request No: P2200974

CASE NARRATIVE

acrolein; and the canister for SVMW-19-10 (P2200974-006) was greater than ½ criteria for trichloroethene. This would equate to a high bias. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: HazAir
 Project ID: BFF

Service Request: P2200974

Date Received: 3/3/2022
 Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfi1 (psig)				
								TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM	Sub-Out - AAC - ASTM D1946
DUPE-5	P2200974-001	Air	3/2/2022	09:10	AS00811	-1.78	3.97	X	X	X	X
SVMW-18-5	P2200974-002	Air	3/2/2022	09:57	AC02151	-1.89	4.47	X	X	X	X
SVMW-18-10	P2200974-003	Air	3/2/2022	10:27	AC01788	-1.94	3.65	X	X	X	X
SVMW-18-15	P2200974-004	Air	3/2/2022	10:50	AS00586	-1.92	3.84	X	X	X	X
SVMW-19-5	P2200974-005	Air	3/2/2022	11:27	AC00416	-2.09	3.75	X	X	X	X
SVMW-19-10	P2200974-006	Air	3/2/2022	11:53	SSC00219	-2.11	3.67	X	X	X	X
SVMW-19-15	P2200974-007	Air	3/2/2022	12:31	AS00642	-2.22	3.95	X	X	X	X

**ALS Environmental
Sample Acceptance Check Form**

Client: HazAir Work order: P2200974
 Project: BFF
 Sample(s) received on: 3/3/22 Date opened: 3/3/22 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2200974-001.01	6.0 L Silonite Can					
P2200974-002.01	6.0 L Ambient Can					
P2200974-003.01	6.0 L Ambient Can					
P2200974-004.01	6.0 L Silonite Can					
P2200974-005.01	6.0 L Ambient Can					
P2200974-006.01	6.0 L Silonite Can					
P2200974-007.01	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/4/22

Client Sample ID	ALS Sample ID	Container Dilution Factor	Injection Volume ml(s)	Result mg/m ³	LOQ mg/m ³	LOD mg/m ³	MDL mg/m ³	Data Qualifier
DUPE-5	P2200974-001	1.45	1.0	4.2	26	4.2	1.3	U
SVMW-18-5	P2200974-002	1.50	1.0	4.4	27	4.4	1.4	U
SVMW-18-10	P2200974-003	1.44	1.0	4.2	26	4.2	1.3	U
SVMW-18-15	P2200974-004	1.45	1.0	4.2	26	4.2	1.3	U
SVMW-19-5	P2200974-005	1.46	1.0	4.2	26	4.2	1.3	U
SVMW-19-10	P2200974-006	1.46	1.0	4.2	26	4.2	1.3	U
SVMW-19-15	P2200974-007	1.49	1.0	4.3	27	4.3	1.4	U
Method Blank	P220304-MB	1.00	1.0	2.9	18	2.9	0.91	U

Parts Per Million results are based on a Molecular Weight of 86.18.

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220304-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/4/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result			ALS			Data Qualifier
	LCS / DLCS	LCS	DLCS	% Recovery		Acceptance	RPD	RPD	
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits	Limit	Limit	
TPH as Gasoline	7,190	7,280	7,150	101	99	89-124	2	14	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 03042203.D
Date Analyzed: 3/4/22
Time Analyzed: 07:45

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220304-LCS	03042204.D	08:05
Duplicate Lab Control Sample	P220304-DLCS	03042205.D	08:27
DUPE-5	P2200974-001	03042219.D	13:21
SVMW-18-5	P2200974-002	03042220.D	13:39
SVMW-18-10	P2200974-003	03042221.D	13:55
SVMW-18-15	P2200974-004	03042222.D	14:12
SVMW-19-5	P2200974-005	03042223.D	14:28
SVMW-19-10	P2200974-006	03042224.D	14:44
SVMW-19-15	P2200974-007	03042225.D	15:00

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: DUPE-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00811

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.78 Final Pressure (psig): 3.97

Container Dilution Factor: 1.45

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.20	0.77	0.45	0.16	J
110-82-7	Cyclohexane	0.48	1.6	0.48	0.22	U
142-82-5	n-Heptane	0.45	0.77	0.45	0.12	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-18-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02151

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.89 Final Pressure (psig): 4.47

Container Dilution Factor: 1.50

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	2.5	0.80	0.47	0.17	
110-82-7	Cyclohexane	0.50	1.7	0.50	0.23	U
142-82-5	n-Heptane	0.47	0.80	0.47	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-18-10
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01788

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.94 Final Pressure (psig): 3.65

Container Dilution Factor: 1.44

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.29	0.76	0.45	0.16	J
110-82-7	Cyclohexane	0.48	1.6	0.48	0.22	U
142-82-5	n-Heptane	0.45	0.76	0.45	0.12	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-18-15
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00586

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.84

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.24	0.77	0.45	0.16	J
110-82-7	Cyclohexane	0.48	1.6	0.48	0.22	U
142-82-5	n-Heptane	0.45	0.77	0.45	0.12	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-19-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00416

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.75

Container Dilution Factor: 1.46

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	1.2	0.77	0.45	0.16	
110-82-7	Cyclohexane	0.48	1.6	0.48	0.22	U
142-82-5	n-Heptane	0.45	0.77	0.45	0.12	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-10
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-006

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00219

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.11 Final Pressure (psig): 3.67

Container Dilution Factor: 1.46

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.45	0.77	0.45	0.16	U
110-82-7	Cyclohexane	0.48	1.6	0.48	0.22	U
142-82-5	n-Heptane	0.45	0.77	0.45	0.12	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-15
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00642

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/19/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.95

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.46	0.79	0.46	0.16	U
110-82-7	Cyclohexane	0.49	1.6	0.49	0.22	U
142-82-5	n-Heptane	0.46	0.79	0.46	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220318-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantiation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 3/2/22
 Date(s) Received: 3/3/22
 Date(s) Analyzed: 3/18 - 3/19/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P220318-MB	99	91	103	70-130	
Lab Control Sample	P220318-LCS	99	89	108	70-130	
Duplicate Lab Control Sample	P220318-DLCS	98	91	109	70-130	
DUPE-5	P2200974-001	97	88	102	70-130	
SVMW-18-5	P2200974-002	98	90	105	70-130	
SVMW-18-10	P2200974-003	96	91	103	70-130	
SVMW-18-15	P2200974-004	97	90	104	70-130	
SVMW-19-5	P2200974-005	97	90	105	70-130	
SVMW-19-10	P2200974-006	97	91	103	70-130	
SVMW-19-15	P2200974-007	95	91	105	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220318-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Topacio Zavala
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/18/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	208	233	223	112	107	63-120	5	25	
110-82-7	Cyclohexane	412	447	435	108	106	70-117	2	25	
142-82-5	n-Heptane	206	217	213	105	103	69-123	2	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Topacio Zavala
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03182203.D
Date Analyzed: 3/18/22
Time Analyzed: 22:12

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220318-LCS	03182204.D	22:45
Duplicate Lab Control Sample	P220318-DLCS	03182205.D	23:19
DUPE-5	P2200974-001	03182208.D	01:13
SVMW-18-5	P2200974-002	03182209.D	01:54
SVMW-18-10	P2200974-003	03182210.D	10:04
SVMW-18-15	P2200974-004	03182211.D	10:54
SVMW-19-5	P2200974-005	03182212.D	11:38
SVMW-19-10	P2200974-006	03182213.D	12:21
SVMW-19-15	P2200974-007	03182214.D	13:09

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Topacio Zavala
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03182201.D
Date Analyzed: 3/18/22
Time Analyzed: 21:05

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	193489	11.32	886356	13.43	169652	17.73
Upper Limit	270885	11.65	1240898	13.76	237513	18.06
Lower Limit	116093	10.99	531814	13.10	101791	17.40

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	154812	11.30	720555	13.42	139932	17.73
02	Lab Control Sample	165763	11.31	769393	13.43	157389	17.73
03	Duplicate Lab Control Sample	181064	11.31	835460	13.43	164178	17.73
04	DUPE-5	152927	11.29	699383	13.42	140469	17.73
05	SVMW-18-5	162080	11.29	747362	13.42	147749	17.73
06	SVMW-18-10	162154	11.30	735481	13.42	142731	17.73
07	SVMW-18-15	160805	11.30	738942	13.42	145903	17.73
08	SVMW-19-5	160728	11.30	727344	13.42	142399	17.73
09	SVMW-19-10	156113	11.29	715594	13.42	140358	17.73
10	SVMW-19-15	168232	11.30	767706	13.42	149461	17.73
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area

AREA LOWER LIMIT = 60% of internal standard area

RT UPPER LIMIT = 0.33 minutes of internal standard RT

RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: DUPE-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00811

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.78 Final Pressure (psig): 3.97

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	0.073	0.061	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.032	0.036	0.032	0.017	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.011	U
74-83-9	Bromomethane	0.032	0.036	0.032	0.0097	U
75-00-3	Chloroethane	0.016	0.036	0.032	0.011	J
107-02-8	Acrolein	0.11	0.29	0.15	0.051	J
67-64-1	Acetone	1.6	3.6	0.16	0.33	J
75-69-4	Trichlorofluoromethane	1.6	0.073	0.061	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.036	0.032	0.013	U
75-09-2	Methylene Chloride	0.22	0.15	0.061	0.011	
76-13-1	Trichlorotrifluoroethane	21	0.036	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.036	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.036	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.036	0.032	0.017	U
156-59-2	cis-1,2-Dichloroethene	0.030	0.036	0.030	0.010	U
67-66-3	Chloroform	0.41	0.15	0.062	0.012	
107-06-2	1,2-Dichloroethane	0.032	0.036	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.030	0.036	0.030	0.013	U
71-43-2	Benzene	0.49	0.11	0.061	0.022	
56-23-5	Carbon Tetrachloride	5.1	0.036	0.030	0.010	
78-87-5	1,2-Dichloropropane	0.060	0.036	0.032	0.0088	
75-27-4	Bromodichloromethane	0.099	0.036	0.032	0.0084	
79-01-6	Trichloroethene	0.047	0.036	0.030	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00811

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.78 Final Pressure (psig): 3.97

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.044	0.15	0.032	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.030	0.073	0.030	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.040	0.073	0.030	0.0070	J
79-00-5	1,1,2-Trichloroethane	0.030	0.15	0.030	0.0086	U
108-88-3	Toluene	0.52	0.15	0.062	0.017	
124-48-1	Dibromochloromethane	0.0099	0.036	0.030	0.0093	J
106-93-4	1,2-Dibromoethane	0.030	0.036	0.030	0.0097	U
127-18-4	Tetrachloroethene	0.60	0.036	0.030	0.023	
108-90-7	Chlorobenzene	0.030	0.15	0.030	0.014	U
100-41-4	Ethylbenzene	0.12	0.15	0.030	0.017	J
179601-23-1	m,p-Xylenes	0.33	0.15	0.062	0.035	
100-42-5	Styrene	0.066	0.15	0.030	0.017	J
95-47-6	o-Xylene	0.22	0.15	0.030	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.030	0.036	0.030	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.040	0.15	0.030	0.020	J
95-63-6	1,2,4-Trimethylbenzene	0.18	0.15	0.030	0.023	
541-73-1	1,3-Dichlorobenzene	0.030	0.036	0.030	0.025	U
106-46-7	1,4-Dichlorobenzene	0.052	0.036	0.030	0.029	
95-50-1	1,2-Dichlorobenzene	0.030	0.036	0.030	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.030	0.15	0.030	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.062	0.073	0.062	0.029	U
91-20-3	Naphthalene	0.21	0.15	0.059	0.032	
87-68-3	Hexachlorobutadiene	0.030	0.15	0.030	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02151

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.89 Final Pressure (psig): 4.47

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.075	0.063	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.033	0.038	0.033	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.016	0.038	0.033	0.010	J
75-00-3	Chloroethane	0.033	0.038	0.033	0.012	U
107-02-8	Acrolein	0.41	0.30	0.15	0.053	
67-64-1	Acetone	2.3	3.8	0.17	0.35	J
75-69-4	Trichlorofluoromethane	0.92	0.075	0.063	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.053	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.41	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.033	0.038	0.033	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.033	0.038	0.033	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	0.13	0.15	0.065	0.012	J
107-06-2	1,2-Dichloroethane	0.033	0.038	0.033	0.012	U
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.014	U
71-43-2	Benzene	0.065	0.11	0.063	0.023	J
56-23-5	Carbon Tetrachloride	0.25	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.033	0.038	0.033	0.0092	U
75-27-4	Bromodichloromethane	0.076	0.038	0.033	0.0087	
79-01-6	Trichloroethene	0.046	0.038	0.032	0.012	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02151

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.89 Final Pressure (psig): 4.47

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.58	0.15	0.065	0.018	
124-48-1	Dibromochloromethane	0.032	0.038	0.032	0.0096	U
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.20	0.038	0.032	0.024	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.30	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	1.1	0.15	0.065	0.036	
100-42-5	Styrene	0.071	0.15	0.032	0.018	J
95-47-6	o-Xylene	1.2	0.15	0.032	0.020	
79-34-5	1,1,1,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.038	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.28	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.032	0.038	0.032	0.026	U
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.075	0.065	0.030	U
91-20-3	Naphthalene	0.064	0.15	0.062	0.033	J
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

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J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-10
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01788

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.94 Final Pressure (psig): 3.65

Container Dilution Factor: 1.44

CAS #	Compound	Result	LOQ	LOD	MDL	Data
		µg/m ³	µg/m ³	µg/m ³	µg/m ³	Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.072	0.060	0.012	
74-87-3	Chloromethane	0.060	0.072	0.060	0.037	U
75-01-4	Vinyl Chloride	0.032	0.036	0.032	0.017	U
106-99-0	1,3-Butadiene	0.060	0.072	0.060	0.011	U
74-83-9	Bromomethane	0.016	0.036	0.032	0.0096	J
75-00-3	Chloroethane	0.032	0.036	0.032	0.011	U
107-02-8	Acrolein	0.14	0.29	0.14	0.050	U
67-64-1	Acetone	0.93	3.6	0.16	0.33	J
75-69-4	Trichlorofluoromethane	0.93	0.072	0.060	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.036	0.032	0.013	U
75-09-2	Methylene Chloride	0.065	0.14	0.060	0.011	J
76-13-1	Trichlorotrifluoroethane	0.40	0.036	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.036	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.036	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.036	0.032	0.017	U
156-59-2	cis-1,2-Dichloroethene	0.030	0.036	0.030	0.010	U
67-66-3	Chloroform	0.12	0.14	0.062	0.012	J
107-06-2	1,2-Dichloroethane	0.032	0.036	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.030	0.036	0.030	0.013	U
71-43-2	Benzene	0.038	0.11	0.060	0.022	J
56-23-5	Carbon Tetrachloride	0.17	0.036	0.030	0.010	
78-87-5	1,2-Dichloropropane	0.032	0.036	0.032	0.0088	U
75-27-4	Bromodichloromethane	0.020	0.036	0.032	0.0084	J
79-01-6	Trichloroethene	0.023	0.036	0.030	0.011	J

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-10
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01788

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.94 Final Pressure (psig): 3.65

Container Dilution Factor: 1.44

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.032	0.14	0.032	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.030	0.072	0.030	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.030	0.072	0.030	0.0069	U
79-00-5	1,1,2-Trichloroethane	0.030	0.14	0.030	0.0085	U
108-88-3	Toluene	0.36	0.14	0.062	0.017	
124-48-1	Dibromochloromethane	0.030	0.036	0.030	0.0092	U
106-93-4	1,2-Dibromoethane	0.030	0.036	0.030	0.0096	U
127-18-4	Tetrachloroethene	0.27	0.036	0.030	0.023	
108-90-7	Chlorobenzene	0.030	0.14	0.030	0.014	U
100-41-4	Ethylbenzene	0.30	0.14	0.030	0.017	
179601-23-1	m,p-Xylenes	1.4	0.14	0.062	0.035	
100-42-5	Styrene	0.050	0.14	0.030	0.017	J
95-47-6	o-Xylene	0.97	0.14	0.030	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.030	0.036	0.030	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.11	0.14	0.030	0.020	J
95-63-6	1,2,4-Trimethylbenzene	0.72	0.14	0.030	0.023	
541-73-1	1,3-Dichlorobenzene	0.030	0.036	0.030	0.024	U
106-46-7	1,4-Dichlorobenzene	0.18	0.036	0.030	0.029	
95-50-1	1,2-Dichlorobenzene	0.030	0.036	0.030	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.030	0.14	0.030	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.062	0.072	0.062	0.029	U
91-20-3	Naphthalene	0.10	0.14	0.059	0.032	J
87-68-3	Hexachlorobutadiene	0.030	0.14	0.030	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-15
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00586

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.84

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.3	0.073	0.061	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.032	0.036	0.032	0.017	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.011	U
74-83-9	Bromomethane	0.012	0.036	0.032	0.0097	J
75-00-3	Chloroethane	0.032	0.036	0.032	0.011	U
107-02-8	Acrolein	0.060	0.29	0.15	0.051	J
67-64-1	Acetone	1.4	3.6	0.16	0.33	J
75-69-4	Trichlorofluoromethane	0.94	0.073	0.061	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.036	0.032	0.013	U
75-09-2	Methylene Chloride	0.099	0.15	0.061	0.011	J
76-13-1	Trichlorotrifluoroethane	0.40	0.036	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.036	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.036	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.036	0.032	0.017	U
156-59-2	cis-1,2-Dichloroethene	0.030	0.036	0.030	0.010	U
67-66-3	Chloroform	0.22	0.15	0.062	0.012	
107-06-2	1,2-Dichloroethane	0.032	0.036	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.030	0.036	0.030	0.013	U
71-43-2	Benzene	0.055	0.11	0.061	0.022	J
56-23-5	Carbon Tetrachloride	0.14	0.036	0.030	0.010	
78-87-5	1,2-Dichloropropane	0.0089	0.036	0.032	0.0088	J
75-27-4	Bromodichloromethane	0.038	0.036	0.032	0.0084	
79-01-6	Trichloroethene	0.030	0.036	0.030	0.011	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-15
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00586

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.84

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.017	0.15	0.032	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.030	0.073	0.030	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.064	0.073	0.030	0.0070	J
79-00-5	1,1,2-Trichloroethane	0.030	0.15	0.030	0.0086	U
108-88-3	Toluene	0.35	0.15	0.062	0.017	
124-48-1	Dibromochloromethane	0.030	0.036	0.030	0.0093	U
106-93-4	1,2-Dibromoethane	0.030	0.036	0.030	0.0097	U
127-18-4	Tetrachloroethene	0.26	0.036	0.030	0.023	
108-90-7	Chlorobenzene	0.030	0.15	0.030	0.014	U
100-41-4	Ethylbenzene	0.19	0.15	0.030	0.017	
179601-23-1	m,p-Xylenes	0.92	0.15	0.062	0.035	
100-42-5	Styrene	0.039	0.15	0.030	0.017	J
95-47-6	o-Xylene	0.70	0.15	0.030	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.030	0.036	0.030	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.16	0.15	0.030	0.020	
95-63-6	1,2,4-Trimethylbenzene	0.91	0.15	0.030	0.023	
541-73-1	1,3-Dichlorobenzene	0.030	0.036	0.030	0.025	U
106-46-7	1,4-Dichlorobenzene	0.31	0.036	0.030	0.029	
95-50-1	1,2-Dichlorobenzene	0.030	0.036	0.030	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.030	0.15	0.030	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.062	0.073	0.062	0.029	U
91-20-3	Naphthalene	0.15	0.15	0.059	0.032	
87-68-3	Hexachlorobutadiene	0.030	0.15	0.030	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00416

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.75

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.8	0.073	0.061	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.032	0.037	0.032	0.018	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.012	U
74-83-9	Bromomethane	0.013	0.037	0.032	0.0098	J
75-00-3	Chloroethane	0.032	0.037	0.032	0.011	U
107-02-8	Acrolein	0.16	0.29	0.15	0.051	J
67-64-1	Acetone	1.8	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	0.93	0.073	0.061	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.037	0.032	0.013	U
75-09-2	Methylene Chloride	0.035	0.15	0.061	0.011	J
76-13-1	Trichlorotrifluoroethane	0.41	0.037	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.037	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.037	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.037	0.032	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.096	0.15	0.063	0.012	J
107-06-2	1,2-Dichloroethane	0.032	0.037	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.11	0.037	0.031	0.013	
71-43-2	Benzene	0.046	0.11	0.061	0.022	J
56-23-5	Carbon Tetrachloride	0.29	0.037	0.031	0.010	
78-87-5	1,2-Dichloropropane	0.032	0.037	0.032	0.0089	U
75-27-4	Bromodichloromethane	0.055	0.037	0.032	0.0085	
79-01-6	Trichloroethene	0.019	0.037	0.031	0.011	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-5
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00416

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.75

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.032	0.15	0.032	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.073	0.031	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.073	0.031	0.0070	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0086	U
108-88-3	Toluene	0.27	0.15	0.063	0.018	
124-48-1	Dibromochloromethane	0.013	0.037	0.031	0.0093	J
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0098	U
127-18-4	Tetrachloroethene	0.17	0.037	0.031	0.023	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.057	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.19	0.15	0.063	0.035	
100-42-5	Styrene	0.074	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.14	0.15	0.031	0.019	J
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.029	0.15	0.031	0.020	J
95-63-6	1,2,4-Trimethylbenzene	0.15	0.15	0.031	0.023	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.040	0.037	0.031	0.029	
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.063	0.073	0.063	0.029	U
91-20-3	Naphthalene	0.14	0.15	0.060	0.032	J
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-10
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00219

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.11 Final Pressure (psig): 3.67

Container Dilution Factor: 1.46

CAS #	Compound	Result	LOQ	LOD	MDL	Data
		µg/m ³	µg/m ³	µg/m ³	µg/m ³	Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.073	0.061	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.032	0.037	0.032	0.018	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.012	U
74-83-9	Bromomethane	0.012	0.037	0.032	0.0098	J
75-00-3	Chloroethane	0.032	0.037	0.032	0.011	U
107-02-8	Acrolein	0.089	0.29	0.15	0.051	J
67-64-1	Acetone	1.1	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	0.93	0.073	0.061	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.037	0.032	0.013	U
75-09-2	Methylene Chloride	0.036	0.15	0.061	0.011	J
76-13-1	Trichlorotrifluoroethane	0.40	0.037	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.037	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.032	0.037	0.032	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.032	0.037	0.032	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.11	0.15	0.063	0.012	J
107-06-2	1,2-Dichloroethane	0.032	0.037	0.032	0.012	U
71-55-6	1,1,1-Trichloroethane	0.21	0.037	0.031	0.013	
71-43-2	Benzene	0.061	0.11	0.061	0.022	J
56-23-5	Carbon Tetrachloride	0.22	0.037	0.031	0.010	
78-87-5	1,2-Dichloropropane	0.032	0.037	0.032	0.0089	U
75-27-4	Bromodichloromethane	0.029	0.037	0.032	0.0085	J
79-01-6	Trichloroethene	0.016	0.037	0.031	0.011	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-10
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00219

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.11 Final Pressure (psig): 3.67

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.027	0.15	0.032	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.031	0.073	0.031	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.056	0.073	0.031	0.0070	J
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0086	U
108-88-3	Toluene	0.49	0.15	0.063	0.018	
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0093	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0098	U
127-18-4	Tetrachloroethene	0.15	0.037	0.031	0.023	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.23	0.15	0.031	0.018	
179601-23-1	m,p-Xylenes	0.78	0.15	0.063	0.035	
100-42-5	Styrene	0.056	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.49	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.21	0.15	0.031	0.020	
95-63-6	1,2,4-Trimethylbenzene	1.2	0.15	0.031	0.023	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.54	0.037	0.031	0.029	
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.063	0.073	0.063	0.029	U
91-20-3	Naphthalene	0.28	0.15	0.060	0.032	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-15
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00642

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.95

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.075	0.063	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.033	0.037	0.033	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.012	0.037	0.033	0.010	J
75-00-3	Chloroethane	0.033	0.037	0.033	0.012	U
107-02-8	Acrolein	0.059	0.30	0.15	0.052	J
67-64-1	Acetone	1.1	3.7	0.16	0.34	J
75-69-4	Trichlorofluoromethane	0.93	0.075	0.063	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.051	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.41	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.033	0.037	0.033	0.012	U
1634-04-4	Methyl tert-Butyl Ether	0.033	0.037	0.033	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.22	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.037	0.033	0.012	U
71-55-6	1,1,1-Trichloroethane	0.29	0.037	0.031	0.013	
71-43-2	Benzene	0.040	0.11	0.063	0.022	J
56-23-5	Carbon Tetrachloride	0.17	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.033	0.037	0.033	0.0091	U
75-27-4	Bromodichloromethane	0.051	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.027	0.037	0.031	0.011	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-15
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P2200974-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00642

Date Collected: 3/2/22
 Date Received: 3/3/22
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.95

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.075	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.18	0.075	0.031	0.0072	
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0088	U
108-88-3	Toluene	0.26	0.15	0.064	0.018	
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.010	U
127-18-4	Tetrachloroethene	0.13	0.037	0.031	0.024	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.082	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.27	0.15	0.064	0.036	
100-42-5	Styrene	0.036	0.15	0.031	0.018	J
95-47-6	o-Xylene	0.20	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.033	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.16	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.094	0.037	0.031	0.030	
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.075	0.064	0.030	U
91-20-3	Naphthalene	0.24	0.15	0.061	0.033	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220308-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.042	0.050	0.042	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.022	0.025	0.022	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.11	2.5	0.11	0.23	U
75-69-4	Trichlorofluoromethane	0.042	0.050	0.042	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220308-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.043	0.10	0.043	0.012	U
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.016	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.021	0.10	0.021	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 3/2/22
 Date(s) Received: 3/3/22
 Date(s) Analyzed: 3/8/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		% Recovered	% Recovered	% Recovered		
Method Blank	P220308-MB	90	96	109	70-130	
Lab Control Sample	P220308-LCS	89	94	122	70-130	
Duplicate Lab Control Sample	P220308-DLCS	89	95	122	70-130	
DUPE-5	P2200974-001	90	95	119	70-130	
SVMW-18-5	P2200974-002	89	96	119	70-130	
SVMW-18-10	P2200974-003	91	96	119	70-130	
SVMW-18-15	P2200974-004	91	96	119	70-130	
SVMW-19-5	P2200974-005	90	97	119	70-130	
SVMW-19-10	P2200974-006	92	96	117	70-130	
SVMW-19-15	P2200974-007	92	96	117	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220308-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD Limit		
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	17.7	17.7	85	85	59-128	0	25	
74-87-3	Chloromethane	20.6	18.6	18.2	90	88	59-132	2	25	
75-01-4	Vinyl Chloride	20.8	17.9	17.8	86	86	64-127	0	25	
106-99-0	1,3-Butadiene	20.6	18.3	18.5	89	90	66-134	1	25	
74-83-9	Bromomethane	20.6	17.4	17.5	84	85	63-134	1	25	
75-00-3	Chloroethane	20.6	17.0	17.0	83	83	63-127	0	25	
107-02-8	Acrolein	41.6	32.9	33.3	79	80	62-126	1	25	
67-64-1	Acetone	102	85.7	85.6	84	84	58-128	0	25	
75-69-4	Trichlorofluoromethane	20.2	17.0	17.1	84	85	62-126	1	25	
75-35-4	1,1-Dichloroethene	21.0	18.8	18.9	90	90	61-133	0	25	
75-09-2	Methylene Chloride	20.8	17.0	17.0	82	82	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	19.0	19.1	88	88	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	18.8	18.8	90	90	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.4	17.9	17.8	84	83	68-126	1	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.1	18.3	88	89	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	20.6	18.6	18.7	90	91	70-121	1	25	
67-66-3	Chloroform	21.0	17.5	17.7	83	84	68-123	1	25	
107-06-2	1,2-Dichloroethane	21.0	16.9	17.0	80	81	65-128	1	25	
71-55-6	1,1,1-Trichloroethane	20.8	17.7	17.8	85	86	68-125	1	25	
71-43-2	Benzene	20.8	17.1	17.2	82	83	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	17.3	17.6	86	87	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	16.8	16.9	82	82	69-123	0	25	
75-27-4	Bromodichloromethane	20.8	16.8	16.9	81	81	72-128	0	25	
79-01-6	Trichloroethene	20.4	18.7	18.8	92	92	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2200974
 ALS Sample ID: P220308-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/8/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD Limit		
123-91-1	1,4-Dioxane	20.6	18.0	18.1	87	88	71-122	1	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	18.3	18.5	88	89	70-128	1	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	17.7	18.1	89	91	75-133	2	25	
79-00-5	1,1,2-Trichloroethane	20.8	16.8	16.9	81	81	73-119	0	25	
108-88-3	Toluene	20.6	16.7	16.8	81	82	66-119	1	25	
124-48-1	Dibromochloromethane	21.0	17.2	17.3	82	82	70-130	0	25	
106-93-4	1,2-Dibromoethane	20.8	17.6	17.8	85	86	74-122	1	25	
127-18-4	Tetrachloroethene	21.2	18.2	18.2	86	86	66-124	0	25	
108-90-7	Chlorobenzene	20.6	20.0	20.0	97	97	70-119	0	25	
100-41-4	Ethylbenzene	20.6	20.4	20.4	99	99	70-124	0	25	
179601-23-1	m,p-Xylenes	41.6	41.2	41.1	99	99	61-134	0	25	
100-42-5	Styrene	20.2	22.2	22.3	110	110	73-127	0	25	
95-47-6	o-Xylene	20.8	21.5	21.5	103	103	67-125	0	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	19.0	19.1	91	92	65-127	1	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	21.0	21.1	101	101	67-130	0	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	21.1	21.2	102	103	66-132	1	25	
541-73-1	1,3-Dichlorobenzene	20.8	21.4	21.5	103	103	65-130	0	25	
106-46-7	1,4-Dichlorobenzene	21.0	20.3	20.4	97	97	60-131	0	25	
95-50-1	1,2-Dichlorobenzene	21.0	20.4	20.6	97	98	63-129	1	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	40.9	41.3	101	102	64-143	1	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	39.7	40.4	95	96	55-142	1	25	
91-20-3	Naphthalene	21.0	19.0	19.5	90	93	57-138	3	25	
87-68-3	Hexachlorobutadiene	21.2	22.8	23.0	108	108	56-138	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio Zavala
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 03082204.D
Date Analyzed: 3/8/22
Time Analyzed: 06:03

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220308-LCS	03082205.D	06:34
Duplicate Lab Control Sample	P220308-DLCS	03082206.D	07:05
DUPE-5	P2200974-001	03082213.D	12:02
SVMW-18-5	P2200974-002	03082214.D	12:34
SVMW-18-10	P2200974-003	03082215.D	13:06
SVMW-18-15	P2200974-004	03082216.D	13:37
SVMW-19-5	P2200974-005	03082217.D	14:09
SVMW-19-10	P2200974-006	03082218.D	14:40
SVMW-19-15	P2200974-007	03082219.D	15:12

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2200974

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Topacio Zavala
 Sample Type: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 03082202.D
 Date Analyzed: 3/8/22
 Time Analyzed: 04:54

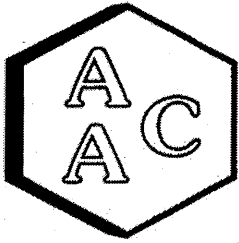
	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
	AREA	#	RT	#	AREA	#	RT	#			
24 Hour Standard	20751		9.60		96928		11.56		16356		15.90
Upper Limit	29051		9.93		135699		11.89		22898		16.23
Lower Limit	12451		9.27		58157		11.23		9814		15.57

Client Sample ID		IS1 (BCM)	IS2 (DFB)	IS3 (CBZ)			
		AREA	RT	AREA	RT	AREA	RT
01	Method Blank	17616	9.62	82238	11.56	14248	15.90
02	Lab Control Sample	18477	9.61	85601	11.56	14527	15.90
03	Duplicate Lab Control Sample	17590	9.61	82074	11.56	14066	15.90
04	DUPE-5	23631	9.61	111496	11.56	21773	15.90
05	SVMW-18-5	23430	9.61	109766	11.56	21735	15.90
06	SVMW-18-10	22801	9.61	106857	11.56	20911	15.90
07	SVMW-18-15	22725	9.61	107177	11.56	20858	15.90
08	SVMW-19-5	22792	9.61	106751	11.56	20909	15.90
09	SVMW-19-10	22631	9.61	106548	11.56	20816	15.90
10	SVMW-19-15	22927	9.61	107759	11.56	20916	15.90
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.



Atmospheric Analysis & Consulting, Inc.

CLIENT : ALS Environmental
PROJECT NAME : BFF
PROJECT NO. : P2200974
AAC PROJECT NO. : 220443 Rev 1
REPORT DATE : 3/11/2022

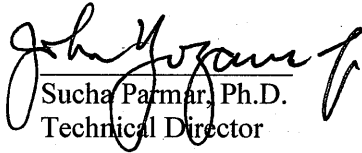
On March 4, 2022, Atmospheric Analysis & Consulting, Inc. received one (1) Six-Liter Silonite Canister for Fixed Gases analysis by ASTM D-1946. Upon receipt, the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Return Pressure (mmHg)
BKGD-030222	220443-28498	215.2

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

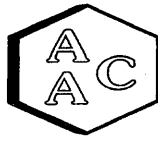
I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of this sample. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.


Sucha Parmar, Ph.D.
Technical Director

This report consists of 26 pages.

Amended Report 220443 Rev 1 supersedes Original Report 220443. The amended report was issued on 06/21/2022. Fixed gas results were corrected.



SAMPLE RECEIPT / LOG-IN REPORT

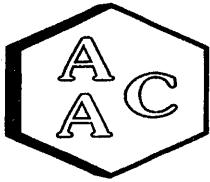
Client Name: ALS
Project Name: P2200974
AAC Project No.: 220443

Sampled By: Client
Received By: H.S.Dalton
Turn Around Time: Normal (10days)
Lab Due Date: 03/11/2022
Final Due Date: 03/18/2022

<u>Sample Receipt Date Time</u>	<u>Clients ID</u>	<u>Sampling Date/Time</u>	<u>Sample #</u>	<u>Matrix</u>	<u>Analysis Requested</u>
03/04/2022 1252	BKGD-030222	03/02/2022	28498	Silonite Canister	EPA 3C

REMARKS:
Client provided their own sampling equipment.

Total Samples: 1



CANISTER PRESSURE LOG

Client: ALS

Project No.: 220443

Date: 03/04/2022

Canister #	Sample #	Initial Pressure mmHg	Final Pressure mmHg
21390	28498	215.2	936.3

ALS Environmental Chain of Custody
 2655 Park Center Drive, Suite A • Simi Valley, CA 93065 • 805-526-7161 • FAX

ALS Contact: Sue Anderson

720443

Project Number: P2200974
 Project Manager: Sue Anderson
 QAP: LAB QAP

Project Name: BFF

F-163

Lab Code	Sample ID	HP	# of Cont.	Matrix	Sample			Misc Out 1 None
					Date	Time	Lab ID	
P2200974-008	BKGD-030222	28447	1	Air	3/2/22	0902	AAC Lab	X
								28498

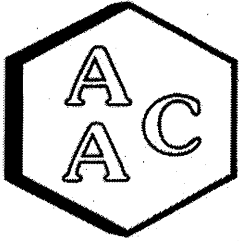
Test Comments
 Misc Out 1 - None P2200974-008 ASTM D1946 - H2,N2,O2,CO,CO2 & CH4

Folder Comments:
 DOD QSM 5.3, j flag to MDL (ug/m3), If ND put LOD, Include MB & IS Summary in final report, LCS/DLCS and closing CCVs; Can QC and Form 1s

Special Instructions/Comments Report using Client project Name / ID Send Report to Sue.Anderson@ALSGlobal.com Send Invoice AP and cc PM: ALSUSA Accountspayable@alsglobal.com		Turnaround Requirements RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 STANDARD Requested FAX Date: _____ Requested Report Date: 03/11/22		Report Requirements I. Results Only _____ II. Results + QC Summaries _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data <input checked="" type="checkbox"/>		Invoice Information PO# 54P2200974 Bill to _____	
H - Test is On Hold P - Test is Authorized for Prep Only		Requested Report Date: 03/11/22		POL/MDL/J Y EDD Y		Airbill Number:	

Relinquished By:  3/14 11:55
 Received By:  3/14 11:55
 Airbill Number: 3/14/22 1252

Results



Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : ALS Environmental
PROJECT NO. : 220443 Rev 1
MATRIX : AIR

SAMPLING DATE : 03/02/2022
RECEIVING DATE : 03/04/2022
ANALYSIS DATE : 03/09/2022
REPORT DATE : 03/11/2022

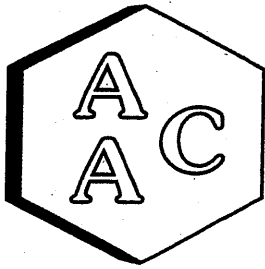
ASTM D-1946

Client ID	BKGD-030222
AAC ID	220443-28498
Can Dilution Factor	4.35
Analyte	Result
H ₂	< 4.4 %
O ₂	21.9 %
N ₂	78.1 %
CO	< 0.4 %
CO ₂	< 0.4 %
CH ₄	< 0.4 %

All fixed gases have been normalized to 100% on a dry basis

Sample Reporting Limit (SRL) is equal to Reporting Limit x Analysis Dil. Fac x Canister Dil. Fac

QA/QC Summary



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed : 03/09/2022
 Analyst : ZD
 Units : %

Instrument ID : GC-TCA #2
 Calb Date : 01/17/2022
 Reporting Limit : 0.1%

I - Opening Continuing Calibration Verification - ASTM D-1946

AAC ID	Analyte	H ₂	O ₂	N ₂	CH ₄	CO	CO ₂
CCV	Spike Conc	9.4	10.8	21.4	10.3	10.2	10.2
	Result	9.8	10.5	20.5	10.3	10.2	10.2
	% Rec *	103.9	97.8	96.0	100.6	99.8	99.7

II - Method Blank - ASTM D-1946

AAC ID	Analyte	H ₂	O ₂	N ₂	CH ₄	CO	CO ₂
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - ASTM D-1946

AAC ID	Analyte	H ₂	O ₂	N ₂	CH ₄	CO	CO ₂
Lab Control Standards	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	9.4	10.8	21.4	10.3	10.2	10.2
	LCS Result	10.1	10.4	20.2	10.2	10.1	10.2
	LCSD Result	10.3	10.2	20.2	10.1	10.0	10.1
	LCS % Rec *	107.9	96.6	94.7	99.4	98.6	99.7
	LCSD % Rec *	109.4	95.0	94.6	98.7	98.1	98.7
	% RPD ***	1.4	1.6	0.2	0.6	0.5	1.0

IV - Sample & Sample Duplicate - ASTM D-1946

AAC ID	Analyte	H ₂	O ₂	N ₂	CH ₄	CO	CO ₂
220473-28631	Sample	0.0	13.0	46.6	0.0	0.0	0.5
	Sample Dup	0.0	13.0	46.5	0.0	0.0	0.5
	Mean	0.0	13.0	46.5	0.0	0.0	0.5
	% RPD ***	0.0	0.3	0.1	0.0	0.0	0.2

V - Matrix Spike & Duplicate - ASTM D-1946

AAC ID	Analyte	H ₂	N ₂	CH ₄	CO	CO ₂
220473-28631	Sample Conc	0.0	23.3	0.0	0.0	0.2
	Spike Conc	9.4	10.1	10.3	10.2	10.2
	MS Result	9.6	33.8	10.1	10.1	10.2
	MSD Result	9.4	33.6	10.2	10.2	10.3
	MS % Rec **	102.2	104.1	98.6	98.6	97.4
	MSD % Rec **	100.0	101.7	99.9	99.7	98.7
	% RPD ***	2.2	2.4	1.3	1.1	1.4

VI - Closing Continuing Calibration Verification - ASTM D-1946

AAC ID	Analyte	H ₂	O ₂	N ₂	CH ₄	CO	CO ₂
CCV	Spike Conc	9.4	10.8	21.4	10.3	10.2	10.2
	Result	10.4	10.3	20.1	10.0	10.0	10.0
	% Rec *	110.7	95.8	94.0	97.4	97.5	97.7

* Must be 85-115%

** Must be 75-125%

*** Must be < 25%

ND = Not Detected

<RL = less than Reporting Limit



Appendix G
Data Quality Evaluation Report – Soil Vapor Monitoring
ST-106/SS-111
(Winter Sampling, Feb 28 – Mar 2, 2022)

Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	microgram(s) per cubic meter
%	percent
AFB	Air Force Base
ALS	ALS Environmental
BAL	blank action limit
DL	detection limit
DOD	Department of Defense
DOE	Department of Energy
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LOD	limit of detection
LOQ	limit of quantitation
MRL	method reporting limit
PQL	project quantitation limit
QC	quality control
QSM	quality systems manual
RPD	relative percent difference
SDG	sample delivery group
UFP-QAPP	Uniform Federal Policy Quality Assurance Project Plan
VISLs	vapor intrusion screening levels
VOC	volatile organic compound

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G-1. DATA QUALITY EVALUATION REPORT – SOIL VAPOR MONITORING (FEBRUARY 2022)

G-1.1. Laboratory Data Quality Summary

This Data Quality Evaluation Report describes the findings of the data validation performed for the analysis of soil vapor samples collected during February and March 2022. This data was collected in support of the *Work Plan for Shallow Vapor Sampling, Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base (AFB), New Mexico* (KAFB, 2021). Sampling and analysis for these events were conducted in accordance with the procedures and overall quality control (QC) and quality assurance protocols presented in the Work Plan and *Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) for Shallow Soil Vapor Sampling Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland AFB, New Mexico* (KAFB, 2022).

Samples were collected from February 28 through March 2, in association with an investigation to determine the presence/absence of key indicators in areas of possible fuel constituent accumulation. This sampling period was associated with the ‘winter sampling’ event of this investigation. Sampling was conducted at eight soil vapor monitoring wells and included the collection of three field duplicate samples. Additionally, three ambient air samples were taken, one for each day of sampling.

Soil vapor samples were shipped to ALS Environmental, Simi Valley, California (ALS) for analysis. ALS maintains current Department of Defense (DOD) Environmental Laboratory Accreditation Program (ELAP) certification for the required analysis in support of this project. Sample analysis was performed in accordance with the U.S. Environmental Protection Agency (EPA) Methods TO-15 (SIM mode), TO-15, and TO-3. Daily ambient air samples were likewise shipped to ALS and assessed in accordance with ASTM D1946-90 (2019).

Chemical analytical data for this event was reported by ALS in P2200921, P2200932, and P2200974 sample delivery groups (SDGs). Appendix H, Table 1 summarizes samples collected from the soil vapor monitoring wells and the associated field QC samples, collection date, laboratory SDG, and analytical method for the winter sampling event. All data underwent validation for completeness and compliance to project requirements. Analytical data validation was performed using the quality criteria specified in the following documents:

- Work Plan (KAFB, 2021) and UFP-QAPP (KAFB, 2022)
- Department of Defense (DOD) Department of Energy (DOE) Consolidated Quality Systems Manual (QSM) for Environmental Laboratories Version 5.4 (DOD DOE, 2021)

The following QC criteria were included in the validation process as applicable to the analytical method:

- Sample preservation, extraction, and analysis hold times
- Canister certification and pressure differences
- Canister certification blank
- Laboratory method blank
- Surrogate spike recoveries
- Laboratory control sample (LCS) and LCS duplicate (LCSD) recoveries
- Relative percent difference (RPD)
- Initial and continuing calibrations

- Internal standard recoveries
- Field duplicate sample precision

Analytical data were reviewed to evaluate precision, accuracy (bias), representativeness, comparability, completeness, and sensitivity as defined below:

- *Precision* is expressed as the RPD between the results of replicate sample analyses: sample duplicates and LCSDs. When analyte RPDs exceeded the acceptance criteria, the data were qualified accordingly.
- *Accuracy (bias)* is demonstrated by recovery of target analytes from fortified blank and sample matrices such as the LCD/LCSD sample. For organic methods, bias is also demonstrated through recovery of surrogates from each field and QC sample. A comparison was made from the recovery of target analytes from fortified samples to the acceptance criteria defined in the UFP-QAPP (KAFB, 2022). When the acceptance criteria were not available in the UFP-QAPP, results were compared with the laboratory in-house control limits. When these criteria were not met, the data were qualified accordingly. Bias may be indicated as high or low.
- *Representativeness* of the sample submitted for analysis was ensured by adherence to standard sampling techniques and standard analytical procedures.
- *Comparability* of sample results was ensured by use of approved sampling and analysis methods and comparison of sample results to historical sample data.
- *Completeness* of data was evaluated based on analytical and technical completeness of sampled wells. Technical completeness of data was used to assess overall project completeness and is expressed as a percentage of the ratio of the number of usable data result to the total number of analytical data results. Only rejected data (R-qualified) were considered not usable to achieve project objectives.
- *Sensitivity* is determined by the ability to achieve the established method-specific reporting limits in accordance with DOD QSM Version 5.4 (DOD DOE, 2021) requirements and includes establishing the detection limit (DL), limit of detection (LOD), and limit of quantitation (LOQ). For this project, the laboratory reported positive results to the DL and flagged with a “J” qualifier, signifying estimated data. Non-detect results were reported at the LOD with a “U” qualifier per the UFP-QAPP. Sensitivity was evaluated based on comparison of the sample reporting limits to the project screening levels.

The following sections present the EPA Stage 3 data validation findings for the winter soil vapor sample data. Appendix B, Table 2 presents the data qualification flags and reason codes to be applied to analytical data, if required.

G-2. DATA QUALITY FINDINGS

G-2.1. Sample Receipt and Analysis Hold Times (Reason Code HT)

The vapor samples were shipped via ground transportation to the ALS laboratory. No temperature preservation requirement is applicable to vapor samples. The 30-day sample hold time was evaluated by comparing the sample collection date to the sample analysis data. Sample analysis holding times were met for all samples for the winter sampling event.

G-2.2. Canister Certification and Laboratory Method Blanks (Reason Code CB/MB)

The soil vapor sample results were evaluated with respect to the canister certification blanks and laboratory method blanks prepared and analyzed for each analytical batch. All volatile organic compounds (VOC) analytes were non-detect or less than one-half of the LOQ in the canister certification blank samples except DUPE-5 (benzene), SVMW-18-5 (acrolein), and SVMW-19-10 (trichloroethene). These analytes have been flagged “J” to indicate an estimated value and can be seen in Appendix G, Table 3.

Dichloromethane (methylene chloride) was detected in the method blank (0.015 µg/m³) associated with wells SVMW-20, SVMW-21, and SVMW-23. Samples SVMW-20-10 and SVMW-20-15 did not exceed the blank action level (BAL) so this compound has been qualified as “J” for each of the two affected samples and can be seen in Appendix B, Table 3. All other sample results exceeded the BAL so no other qualifiers were needed.

G-2.3. Initial and Continuing Calibration Blanks (Reason Code (CB/CCB))

Initial and continuing calibration blank criteria were reviewed to ensure that the instruments were free of contamination prior to sample analysis. Calibration blank concentrations are considered acceptable when contaminant levels in the blank were less than one-half of the LOQ for target analytes and less than the LOQ for common laboratory contaminants. Initial and continuing calibration blank data were within control criteria for all sample analyses.

G-2.4. Surrogate Recoveries (Reason Code SURR)

Surrogate compounds are added to field and laboratory QC samples for organic analysis to evaluate the matrix effect and method performance on an individual sample basis. All surrogate compound recoveries for the soil vapor sample data were within method control criteria except SVMW-20-5 4-Bromofluorobenzene, with a recovery of 132 and an allowable range of 70-130. Associated QC samples and other surrogate compounds exhibited acceptable recovery; therefore, no data was flagged.

G-2.5. Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries and Precision (Reason Code LCS/RPD)

The LCS is an aliquot of an analyte-free matrix spiked with target analytes that are prepared with each analytical batch for each analytical method. The recovery of target analytes from the LCS analysis is a measurement of method performance in an interference-free sample matrix. All LCS recoveries for the soil vapor samples were within method control limits.

G-2.6. Internal Standard Recoveries (Reason Code IS)

Internal standards are added to all samples including QC samples to monitor the instrumentation sensitivity and response during sample analysis. The internal standard area response and retention times are monitored to ensure they are within the control criteria for the analytical method. All internal standard recoveries were within control limits for the winter sample data except chlorobenzene-d5 in sample SVMW-23-15 due to suspected matrix interference. The sample was diluted in an attempt to eliminate the interference, causing the results to have an elevated LOQ/project quantitation limit (PQL)/method detection limit (MRL). This did not cause any LOQ/PQL/MRL to exceed any screening limits, and it was not necessary to qualify any sample data.

G-2.7. Initial and Continuing Calibration Verification (Reason Code CCV)

Instrument calibration is performed for all analyses in accordance with method requirements. The linear analytical range is established for each method by analysis of calibration standards prepared at increasing concentrations that cover the expected sample concentration range. The acceptability of the initial calibration is determined by the calculation of a percent relative standard deviation or coefficient.

The stability of the analytical system is monitored by analysis of continuing calibration standards at concentrations near the mid-point of the instrument calibration range. The percent difference values between the relative response factor in the initial calibration and the relative response factor in the continuing calibration are reviewed to ensure instrument calibration criteria are within method control limits. All initial and continuing calibration verifications met the method-specific control criteria for the Q2 soil vapor analytical data except vinyl chloride in SDG P2200932. Eleven sample results were “UJ” qualified during validation. Appendix B, Table 3 presents the qualified sample results based on the calibration criteria.

G-2.8. Trip Blanks for Volatile Organic Compounds (Reason Code TB)

Trip blank samples were not shipped with the winter soil vapor samples as they are not required per the UFP-QAPP. Trip blank canisters are not necessarily representative of batch contamination since each sample is contained within an individual Summa® canister.

G-2.9. Field Duplicate Samples (Reason Code FD)

In accordance with the project UFP-QAPP requirements (KAFB, 2022), field duplicate samples were collected at a frequency of at least one field duplicate for every 10 samples collected (10%). For the winter sampling event, three field duplicate samples were collected in association with 24 soil vapor samples and analyzed for EPA TO-15SIM. Field duplicate samples were collected at a frequency of 12.5% for the winter event.

For field duplicate samples, RPD was evaluated by calculating the RPD between the parent sample and the duplicate sample. The RPD was calculated using the following equation:

$$RPD = \frac{|S - D|}{\left[\frac{(S + D)}{2}\right]} \times 100$$

where S = ‘Sample Result’ and D = ‘Duplicate Result’

Acceptable precision control criteria are established at less than or equal to 50% for soil vapor samples. The RPD was calculated between pairs of field duplicate samples when both results were reported at or above the LOQ. The results for the soil vapor and the associated field duplicate samples are provided in Appendix B, Table 4. Seventy-four field samples and associated field duplicate results for several compounds were qualified “J” or “UJ” based on exceedance of the RPD criteria. See Appendix B, Table 3 for further details.

G-2.10. Qualified Sample Results Above Project Screening Levels

During the winter sampling event there were no exceedances of the project screening levels, whether qualified or unqualified.

G-2.11. Qualified Sample Results Above Vapor Intrusion Screening Levels (VISLs)

Results returned from the laboratory included several dozen analytes that did not have associated project screening limits. However, many of them have VISLs that, while not a project screening level, can still reveal important information. During the winter sampling event, there were no qualified samples above their VISLs.

G-2.12. Soil Vapor Results with LOQ/PQL/MRL Exceeding the Project Screening Level

When samples require dilution, all analyte reporting limits become elevated by the amount of the dilution, which potentially results in exceedances. During the winter sampling event, no soil vapor sample results were reported with LOQ/PQL/MRLs that exceeded the project screening level.

G-2.13. Soil Vapor Results with LOQ/PQL/MRL Exceeding Associated VISLs

When samples require dilution, all analyte reporting limits become elevated by the amount of the dilution, which potentially results in exceedances. During the winter sampling event, the LOQ/PQL/MRL for 1,2-Dibromo 3-Chloropropane exceeded the associated VISLs for all 27 samples (24 native, and three field duplicates). Because the sample result for SVMW-16-15 exceeded both the associated VISL for 1,2-Dibromo 3-Chloropropane and the LOQ/PQL/MRL exceeded the VISL, the sample result has been qualified “UJ.” No other qualifiers are necessary.

G-2.14. Professional Judgement

The project chemist may use professional judgement during the data review process to apply validation qualifiers based on site-specific and project-specific knowledge, historical data, comparability of data, and analytical expertise. Professional judgement was not applied by the project chemist to qualify winter soil vapor data in addition to data qualified during validation.

G-3. COMPLETENESS

The following sections present a discussion of the analytical and technical completeness for the winter soil vapor analytical data.

G-3.1. Analytical Completeness

Analytical completeness is a quantitative measure of the number of unqualified data results compared to the total number of results expressed as a percentage, based on the target analytes qualified for exceedances of QC requirements from calibration, LCS, surrogate, method precision, and blank contamination results. Analytical completeness was calculated as follows:

$$\text{Percent Analytical Completeness} = \frac{\text{Number of Unqualified Results}}{\text{Total Number of Results}} \times 100$$

Overall analytical completeness for the winter sampling event was 93.5% (90 qualified analytes out of 1,377 analytes for field and field duplicate samples) based on canister certification, method blank contamination, continuing calibration verification, and field duplicate RPD exceedance.

G-3.2. Technical Completeness

Technical completeness is a quantitative measure of the data usability based on the number of rejected data compared to the total number of sample results. The technical completeness calculation considers all data that are not rejected (R-qualified) to be usable data to achieve project objectives. The technical completeness was calculated as follows:

$$\text{Percent Technical Completeness} = \frac{\text{Number of Usable Results}}{\text{Total Number of Results}} \times 100$$

The project data quality objectives were achieved for the winter soil vapor sampling event. The technical completeness for the winter sampling was 100%. Technical completeness is provided in Appendix B Table 7.

G-3.3. Data Analysis Completeness

As a part of the data review process, chain-of-custody forms and project data deliverables are reviewed against the project requirements in the Work Plan (KAFB, 2021) to ensure compliance with the sampling plan and that analytical results were reported for all planned methods and samples. Data completeness for the soil vapor monitoring data deliverables was determined to be 100%. Level IV analytical data packages are provided in Appendix C.

G-4. REPRESENTATIVENESS AND COMPARABILITY

Winter soil vapor sampling was conducted in accordance with the sampling and analysis protocols and standard operating procedures documented in the Work Plan (KAFB, 2021). Approved procedures were used to collect, document, and ship samples to the ALS laboratory, thus ensuring the samples collected were representative of the soil vapor monitoring wells.

The ALS laboratory maintains current DOD ELAP certification and adhered to the analytical methods documented in the project UFP-QAPP and DOD QSM 5.4 requirements to prepare and analyze samples and report the data. These certifications ensure the comparability of the analytical results between different samples and different sampling events.

The EPA Stage 3 validation was performed on 100% of the analytical data to verify that the laboratory complied with the project UFP-QAPP and method requirements. The QC results that exceeded method control criteria resulted in data qualification as presented in the previous sections. Based on a review of the completed sample collection logs, chain-of-custody forms, sample receipt forms, and laboratory data packages, the analytical data reported for the winter soil vapor sampling achieved the project data representativeness and comparability requirements.

G-5. SENSITIVITY

Data sensitivity for the winter soil vapor analytical data was achieved by complying with the analytical method guidelines specified in the project UFP-QAPP (KAFB, 2022). Project reporting limits are presented in the UFP-QAPP, Table 7 and Table 8. Non-detect analytes are reported at the LOD and flagged “U.” Detections of target analytes below the method LOQ are “J” flagged as estimated values per the project requirements.

Winter soil vapor samples required dilution during analysis as deemed necessary by the laboratory to bring elevated concentrations of analytes into the instrument calibration range for quantitation. Samples requiring dilution due to elevated analytes in the sample (target or non-target) resulted in elevated reporting limits for all analytes in the sample per standard analytical method protocol.

During the winter soil vapor sample analysis, no data was reported at elevated reporting limits unless associated with other elevated analytes in the sample matrix. Data qualified “J” and “UJ,” and data with elevated reporting limits are usable to achieve data quality objectives. Samples were analyzed in accordance with DOD QSM and EPA analytical methodology and 100% technical data completeness was achieved for the winter soil vapor data.

G-6. CONCLUSIONS

The analytical data reported for the winter soil vapor monitoring event have been reviewed for precision, accuracy (bias), representativeness, comparability, completeness, and sensitivity and verified for completeness and compliance. Data quality criteria exceedances were noted for canister certification, method blank contamination, continuing calibration verification exceedance, and field duplicate RPD exceedance. Data quality exceedances resulted in “UJ” and “J” qualified (non-detect and estimated) sample results. Estimated data are usable to achieve project objectives. All data are usable to achieve the project data quality objectives.

REFERENCES

- Department of Defense (DOD) and Department of Energy (DOE), 2021. Consolidated Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.4. October.
- KAFB, 2022. Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) for Shallow Soil Vapor Sampling Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland AFB, New Mexico. January.
- KAFB, 2021. Work Plan for Shallow Vapor Sampling Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base, New Mexico. May.
- NMED, 2021. Risk Assessment Guidance for Site Investigations and Remediation Volume I Soil Screening Guidance for Human Health Risk Assessments. November.

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- Table G-3 Qualified Sample Results, ST-106/SS-111, Winter Sampling
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Table G-1. Soil Vapor Sample Collection Summary, ST-106/SS-111, Winter Sampling

Sample Location ID	Field Sample ID	Sample Date	SDG	Analytical Parameter ^a	Comments
SVMW-16	SVMW-16-5	3/1/22	P2200932	VOC, TPH	--
SVMW-16	DUPE-5	3/2/22	P2200974	VOC, TPH	FD
SVMW-16	SVMW-16-10	3/1/22	P2200932	VOC, TPH	--
SVMW-16	SVMW-16-15	3/1/22	P2200932	VOC, TPH	--
SVMW-17	SVMW-17-5	3/1/22	P2200932	VOC, TPH	--
SVMW-17	SVMW-17-10	3/1/22	P2200932	VOC, TPH	--
SVMW-17	SVMW-17-15	3/1/22	P2200932	VOC, TPH	--
SVMW-18	SVMW-18-5	3/2/22	P2200974	VOC, TPH	--
SVMW-18	SVMW-18-10	3/2/22	P2200974	VOC, TPH	--
SVMW-18	SVMW-18-15	3/2/22	P2200974	VOC, TPH	--
SVMW-19	SVMW-19-5	3/2/22	P2200974	VOC, TPH	--
SVMW-19	SVMW-19-10	3/2/22	P2200974	VOC, TPH	--
SVMW-19	SVMW-19-15	3/2/22	P2200974	VOC, TPH	--
SVMW-20	SVMW-20-5	2/28/22	P2200921	VOC, TPH	--
SVMW-20	SVMW-20-10	2/28/22	P2200921	VOC, TPH	--
SVMW-20	SVMW-20-15	2/28/22	P2200921	VOC, TPH	--
SVMW-20	DUPE-15	3/1/22	P2200932	VOC, TPH	FD
SVMW-21	SVMW-21-5	2/28/22	P2200921	VOC, TPH	--
SVMW-21	SVMW-21-10	2/28/22	P2200921	VOC, TPH	--
SVMW-21	DUPE-10	3/1/22	P2200932	VOC, TPH	FD
SVMW-21	SVMW-21-15	2/28/22	P2200921	VOC, TPH	--
SVMW-22	SVMW-22-5	3/1/22	P2200932	VOC, TPH	--
SVMW-22	SVMW-22-10	3/1/22	P2200932	VOC, TPH	--
SVMW-22	SVMW-22-15	3/1/22	P2200932	VOC, TPH	--
SVMW-23	SVMW-23-5	2/28/22	P2200921	VOC, TPH	--
SVMW-23	SVMW-23-10	2/28/22	P2200921	VOC, TPH	--
SVMW-23	SVMW-23-15	2/28/22	P2200921	VOC, TPH	--

^a VOCs analyzed in accordance with Methods TO-15SIM and TO-15. TPH analyzed in accordance with Method TO-3.

-- = no comment

FD = field duplicate

ID = identification

TPH = total petroleum hydrocarbon(s)

VOC = volatile organic compound(s)

Table G-2. Data Qualification Flags and Reason Codes

Data Qualification Flags for Data Validation	
Qualifier	Definition
	No Qualifier indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.
J	The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The analyte was analyzed for, but the presence <u>or</u> absence of the analyte has not been verified. Re-sampling and re-analysis may be necessary to confirm or deny the presence of the analyte. Results are rejected, and data are <u>unusable</u> for any purposes.
X	The sample results were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project QC criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team.
Reason Codes for Data Validation	
Reason Code	Description
CB/CCB	Calibration blank or continuing calibration blank outside of control limits
CCV	Calibration verification outside of control limits
FB	Field blank contamination
FD	Field duplicate sample results out of control criteria
ICS	Interference check sample
LCS	Laboratory control sample recovery out of control criteria
MB	Method blank contamination
RPD	Relative percent difference outside of control criteria
SURR	Surrogate recovery outside of control limits

Table G-3. Qualified Sample Results, ST-106/SS-111, Winter Sampling

Well Location ID	Sample Name	SDG	Collection Method	Sample Type	Analyte	Data Qualifier	Validation Reason Code
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	1,2-Dichloropropane	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	1,2-Dichloropropane	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Benzene	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Benzene	J	FD, CB
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Bromodichloromethane	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Bromodichloromethane	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Bromomethane	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Bromomethane	UJ	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Chloroethane	UJ	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Chloroethane	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Chloroform	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Chloroform	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Dibromochloromethane	UJ	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Dibromochloromethane	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Dichloromethane (Methylene Chloride)	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Dichloromethane (Methylene Chloride)	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Hexane	UJ	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Hexane	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Trichloroethene	J	FD
SVMW-16	DUPE-5	P2200974	SUMMA	FD	Trichloroethene	J	FD
SVMW-16	SVMW-16-5	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-16	SVMW-16-10	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-16	SVMW-16-15	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-17	SVMW-17-5	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-17	SVMW-17-10	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-17	SVMW-17-15	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-18	SVMW-18-5	P2200974	SUMMA	N	Acrolein	J	CB
SVMW-19	SVMW-19-10	P2200974	SUMMA	N	Trichloroethene	J	CB
SVMW-20	SVMW-20-10	P2200921	SUMMA	N	Dichloromethane (Methylene Chloride)	J	MB
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	1,2,4-Trimethylbenzene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	1,2,4-Trimethylbenzene	J	FD

Table G-3. Qualified Sample Results, ST-106/SS-111, Winter Sampling, (Continued, Page 2 of 3)

Well Location ID	Sample Name	SDG	Collection Method	Sample Type	Analyte	Data Qualifier	Validation Reason Code
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	1,2-Dichloropropane	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	1,2-Dichloropropane	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	1,3,5-Trimethylbenzene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	1,3,5-Trimethylbenzene	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	1,4-Dichlorobenzene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	1,4-Dichlorobenzene	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Acetone	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Acetone	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Acrolein	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Acrolein	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Benzene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Benzene	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Bromomethane	UJ	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Bromomethane	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Cyclohexane	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Cyclohexane	UJ	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Dichloromethane (Methylene Chloride)	J	FD, MB
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Dichloromethane (Methylene Chloride)	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Ethylbenzene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Ethylbenzene	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Hexane	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Hexane	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	m,p-Xylenes	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	m,p-Xylenes	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	n-Heptane	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	n-Heptane	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	o-Xylene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	o-Xylene	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Styrene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Styrene	J	FD
SVMW-20	SVMW-20-15	P2200921	SUMMA	N	Toluene	J	FD
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Toluene	J	FD

Table G-3. Qualified Sample Results, ST-106/SS-111, Winter Sampling (Concluded, Page 3 of 3)

Well Location ID	Sample Name	SDG	Collection Method	Sample Type	Analyte	Data Qualifier	Validation Reason Code
SVMW-20	DUPE-15	P2200932	SUMMA	FD	Vinyl Chloride	UJ	CCV
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	1,2-Dichloropropane	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	1,2-Dichloropropane	J	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	1,4-Dioxane	UJ	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	1,4-Dioxane	J	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	Cyclohexane	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	Cyclohexane	UJ	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	Hexane	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	Hexane	UJ	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	m,p-Xylenes	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	m,p-Xylenes	J	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	Naphthalene	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	Naphthalene	J	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	n-Heptane	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	n-Heptane	UJ	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	o-Xylene	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	o-Xylene	J	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	Styrene	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	Styrene	UJ	FD
SVMW-21	SVMW-21-10	P2200921	SUMMA	N	Toluene	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	Toluene	J	FD
SVMW-21	DUPE-10	P2200932	SUMMA	FD	Vinyl Chloride	UJ	CCV
SVMW-22	SVMW-22-5	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-22	SVMW-22-10	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV
SVMW-22	SVMW-22-15	P2200932	SUMMA	N	Vinyl Chloride	UJ	CCV

CCV = continuing calibration verification

FD = field duplicate

ID = identification

MB = method blank

N = normal / native field sample

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Table G-4-1. Field Duplicate Sample Results, ST-106/SS-111, Winter Sampling, SVMW-16/DUPE-5

Well Location ID:	SVMW-16			SVMW-16			
Field Sample ID:	SVMW-16-5			DUPE-5			
Sample Delivery Group:	P2200932			P2200974			
Sample Date:	3/1/2022			3/2/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	
1,1,1-Trichloroethane	0.037	--	0.016	0.03	--	0.013	20.9
1,1,2,2-Tetrachloroethane	0.037	--	0.015	0.03	--	0.013	20.9
1,1,2-Trichloroethane	0.037	--	0.01	0.03	--	0.0086	20.9
1,1,2-Trichlorotrifluoroethane	16	--	0.014	21	--	0.012	27.0
1,1-Dichloroethane	0.039	--	0.014	0.032	--	0.012	19.7
1,1-Dichloroethene	0.039	--	0.015	0.032	--	0.013	19.7
1,2,4-Trichlorobenzene	0.075	--	0.035	0.062	--	0.029	19.0
1,2,4-Trimethylbenzene	0.17	--	0.028	0.18	--	0.023	5.7
1,2-Dibromo 3-Chloropropane	0.037	--	0.025	0.03	--	0.02	20.9
1,2-Dibromoethane	0.037	--	0.012	0.03	--	0.0097	20.9
1,2-Dichlorobenzene	0.037	--	0.032	0.03	--	0.026	20.9
1,2-Dichloroethane	0.039	--	0.015	0.032	--	0.012	19.7
1,2-Dichloropropane	0.02	J	0.011	0.06	J	0.0088	100.0
1,3,5-Trimethylbenzene	0.037	--	0.025	0.04	--	0.02	7.8
1,3-Butadiene	0.074	--	0.014	0.061	--	0.011	19.3
1,3-Dichlorobenzene	0.037	--	0.03	0.03	--	0.025	20.9
1,4-Dichlorobenzene	0.061	--	0.035	0.052	--	0.029	15.9
1,4-Dioxane	0.039	--	0.015	0.044	--	0.013	12.0
Acetone	1.8	--	0.4	1.6	--	0.33	11.8
Acrolein	0.11	--	0.061	0.11	--	0.051	0.0
Benzene	0.072	J	0.026	0.49	J	0.022	148.8
Bromodichloromethane	0.056	J	0.01	0.099	J	0.0084	55.5
Bromomethane	0.014	J	0.012	0.032	UJ	0.0097	78.3
Carbon Tetrachloride	3.9	--	0.012	5.1	--	0.01	26.7
Chlorobenzene	0.037	--	0.017	0.03	--	0.014	20.9
Chloroethane	0.039	UJ	0.014	0.016	J	0.011	83.6
Chloroform	0.21	J	0.014	0.41	J	0.012	64.5
Chloromethane	0.074	--	0.046	0.061	--	0.038	19.3
cis-1,2-Dichloroethene	0.037	--	0.013	0.03	--	0.01	20.9
cis-1,3-Dichloropropene	0.037	--	0.012	0.03	--	0.01	20.9
Cyclohexane	0.58	--	0.26	0.48	--	0.22	18.9
Dibromochloromethane	0.037	UJ	0.011	0.0099	J	0.0093	115.6
Dichlorodifluoromethane (CFC 12)	1.8	--	0.015	2	--	0.012	10.5
Dichloromethane (Methylene Chloride)	0.11	J	0.014	0.22	J	0.011	66.7
Ethylbenzene	0.12	--	0.021	0.12	--	0.017	0.0
Hexachlorobutadiene	0.037	--	0.023	0.03	--	0.019	20.9

Table G-4-1. Field Duplicate Sample Results, ST-106/SS-111, Winter Sampling, SVMW-16/DUPE-5 (Concluded, Page 2 of 2)

Well Location ID:	SVMW-16			SVMW-16			
Field Sample ID:	SVMW-16-5			DUPE-5			
Sample Delivery Group:	P2200932			P2200974			
Sample Date:	3/1/2022			3/2/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	RPD
Hexane	0.54	UJ	0.19	0.2	J	0.16	91.9
m,p-Xylenes	0.34	--	0.042	0.33	--	0.035	3.0
Methyl tert-Butyl Ether	0.039	--	0.021	0.032	--	0.017	19.7
Naphthalene	0.24	--	0.039	0.21	--	0.032	13.3
n-Heptane	0.54	--	0.15	0.45	--	0.12	18.2
o-Xylene	0.24	--	0.023	0.22	--	0.019	8.7
Styrene	0.1	--	0.021	0.066	--	0.017	41.0
Tetrachloroethene	0.71	--	0.028	0.6	--	0.023	16.8
Toluene	0.6	--	0.021	0.52	--	0.017	14.3
TPH as Gasoline	4.5	--	1.4	4.2	--	1.3	6.9
trans-1,2-Dichloroethene	0.039	--	0.019	0.032	--	0.016	19.7
trans-1,3-Dichloropropene	0.037	--	0.0084	0.04	--	0.007	7.8
Trichloroethene	0.14	J	0.013	0.047	J	0.011	99.5
Trichlorofluoromethane	1.3	--	0.014	1.6	--	0.012	20.7
Vinyl Chloride	0.039	--	0.021	0.032	--	0.017	19.7

ID = identification

LOD = limit of detection

RPD = relative percent difference

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

-- = Validation qualifier not assigned

Table G-4-2. Field Duplicate Sample Results, ST-106/SS-111, Winter Sampling, SVMW-20/DUPE-15

Well Location ID:	SVMW-20			SVMW-20			
Field Sample ID:	SVMW-20-15			DUPE-15			
Sample Delivery Group:	P2200921			P2200932			
Sample Date:	2/28/2022			3/1/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	
1,1,1-Trichloroethane	0.031	--	0.013	0.048	--	0.021	43.0
1,1,2,2-Tetrachloroethane	0.031	--	0.013	0.048	--	0.02	43.0
1,1,2-Trichloroethane	0.031	--	0.0087	0.048	--	0.013	43.0
1,1,2-Trichlorotrifluoroethane	0.37	--	0.012	0.39	--	0.018	5.3
1,1-Dichloroethane	0.032	--	0.012	0.05	--	0.019	43.9
1,1-Dichloroethene	0.032	--	0.013	0.05	--	0.02	43.9
1,2,4-Trichlorobenzene	0.063	--	0.029	0.098	--	0.046	43.5
1,2,4-Trimethylbenzene	0.14	J	0.024	0.26	J	0.036	60.0
1,2-Dibromo 3-Chloropropane	0.031	--	0.021	0.048	--	0.032	43.0
1,2-Dibromoethane	0.031	--	0.0098	0.048	--	0.015	43.0
1,2-Dichlorobenzene	0.031	--	0.026	0.048	--	0.041	43.0
1,2-Dichloroethane	0.032	--	0.012	0.05	--	0.019	43.9
1,2-Dichloropropane	0.01	J	0.009	0.042	J	0.014	123.1
1,3,5-Trimethylbenzene	0.022	J	0.021	0.059	J	0.032	91.4
1,3-Butadiene	0.062	--	0.012	0.096	--	0.018	43.0
1,3-Dichlorobenzene	0.031	--	0.025	0.048	--	0.039	43.0
1,4-Dichlorobenzene	0.031	J	0.029	0.088	J	0.046	95.8
1,4-Dioxane	0.032	--	0.013	0.05	--	0.02	43.9
Acetone	1.1	J	0.34	5	J	0.52	127.9
Acrolein	0.088	J	0.051	0.5	J	0.08	140.1
Benzene	0.058	J	0.022	0.31	J	0.034	137.0
Bromodichloromethane	0.053	--	0.0085	0.057	--	0.013	7.3
Bromomethane	0.032	UJ	0.0098	0.016	J	0.015	66.7
Carbon Tetrachloride	0.12	--	0.01	0.13	--	0.016	8.0
Chlorobenzene	0.031	--	0.014	0.048	--	0.022	43.0
Chloroethane	0.032	--	0.011	0.05	--	0.018	43.9
Chloroform	1.1	--	0.012	1	--	0.018	9.5
Chloromethane	0.062	--	0.038	0.096	--	0.059	43.0
cis-1,2-Dichloroethene	0.031	--	0.011	0.048	--	0.016	43.0
cis-1,3-Dichloropropene	0.031	--	0.01	0.048	--	0.016	43.0
Cyclohexane	4.2	J	0.22	0.56	UJ	0.26	152.9
Dibromochloromethane	0.031	--	0.0094	0.048	--	0.015	43.0
Dichlorodifluoromethane (CFC 12)	1.9	--	0.012	1.9	--	0.019	0.0
Dichloromethane (Methylene Chloride)	0.035	J	0.011	0.25	J	0.018	150.9
Ethylbenzene	0.082	J	0.018	0.19	J	0.027	79.4
Hexachlorobutadiene	0.031	--	0.019	0.048	--	0.03	43.0

Table G-4-2. Field Duplicate Sample Results, ST-106/SS-111, Winter Sampling, SVMW-20/DUPE-15 (Concluded, Page 2 of 2)

Well Location ID:	SVMW-20			SVMW-20			
Field Sample ID:	SVMW-20-15			DUPE-15			
Sample Delivery Group:	P2200921			P2200932			
Sample Date:	2/28/2022			3/1/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	
Hexane	2.4	J	0.16	0.23	J	0.19	165.0
m,p-Xylenes	0.24	J	0.035	0.57	J	0.055	81.5
Methyl tert-Butyl Ether	0.032	--	0.018	0.05	--	0.027	43.9
Naphthalene	0.13	--	0.032	0.14	--	0.05	7.4
n-Heptane	1.7	J	0.12	0.19	J	0.15	159.8
o-Xylene	0.15	J	0.019	0.26	J	0.03	53.7
Styrene	0.042	J	0.018	0.12	J	0.027	96.3
Tetrachloroethene	0.16	--	0.024	0.14	--	0.036	13.3
Toluene	0.38	J	0.018	1.5	J	0.027	119.1
TPH as Gasoline	4.3	--	1.3	4.2	--	1.3	2.4
trans-1,2-Dichloroethene	0.032	--	0.016	0.05	--	0.025	43.9
trans-1,3-Dichloropropene	0.031	--	0.0071	0.048	--	0.011	43.0
Trichloroethene	0.042	--	0.011	0.039	--	0.018	7.4
Trichlorofluoromethane	0.9	--	0.012	0.98	--	0.018	8.5
Vinyl Chloride	0.032	--	0.018	0.05	--	0.027	43.9

ID = identification

LOD = limit of detection

RPD = relative percent difference

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

-- = Validation qualifier not assigned

Table G-4-3. Field Duplicate Sample Results, ST-106/SS-111, Winter Sampling, SVMW-21/DUPE-10

Well Location ID: Field Sample ID: Sample Delivery Group: Sample Date: Sample Type:	SVMW-21			SVMW-21			RPD
	SVMW-21-10			DUPE-10			
	Normal / Native			Field Duplicate			
Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	
1,1,1-Trichloroethane	0.032	--	0.014	0.034	--	0.015	6.1
1,1,2,2-Tetrachloroethane	0.032	--	0.013	0.034	--	0.014	6.1
1,1,2-Trichloroethane	0.032	--	0.009	0.034	--	0.0096	6.1
1,1,2-Trichlorotrifluoroethane	0.37	--	0.012	0.39	--	0.013	5.3
1,1-Dichloroethane	0.033	--	0.012	0.036	--	0.013	8.7
1,1-Dichloroethene	0.033	--	0.013	0.036	--	0.014	8.7
1,2,4-Trichlorobenzene	0.065	--	0.03	0.07	--	0.033	7.4
1,2,4-Trimethylbenzene	0.081	--	0.024	0.062	--	0.026	26.6
1,2-Dibromo 3-Chloropropane	0.032	--	0.021	0.034	--	0.023	6.1
1,2-Dibromoethane	0.032	--	0.01	0.034	--	0.011	6.1
1,2-Dichlorobenzene	0.032	--	0.027	0.034	--	0.029	6.1
1,2-Dichloroethane	0.033	--	0.013	0.036	--	0.014	8.7
1,2-Dichloropropane	0.019	J	0.0093	0.094	J	0.0099	132.7
1,3,5-Trimethylbenzene	0.032	--	0.021	0.034	--	0.023	6.1
1,3-Butadiene	0.064	--	0.012	0.068	--	0.013	6.1
1,3-Dichlorobenzene	0.032	--	0.026	0.034	--	0.028	6.1
1,4-Dichlorobenzene	0.032	--	0.03	0.034	--	0.033	6.1
1,4-Dioxane	0.033	UJ	0.013	0.016	J	0.014	69.4
Acetone	1.8	--	0.35	1.8	--	0.37	0.0
Acrolein	0.11	--	0.053	0.15	--	0.057	30.8
Benzene	0.11	--	0.023	0.069	--	0.024	45.8
Bromodichloromethane	0.085	--	0.0088	0.085	--	0.0095	0.0
Bromomethane	0.014	--	0.01	0.013	--	0.011	7.4
Carbon Tetrachloride	0.1	--	0.011	0.096	--	0.012	4.1
Chlorobenzene	0.032	--	0.015	0.034	--	0.016	6.1
Chloroethane	0.033	--	0.012	0.036	--	0.013	8.7
Chloroform	0.94	--	0.012	0.99	--	0.013	5.2
Chloromethane	0.064	--	0.04	0.068	--	0.042	6.1
cis-1,2-Dichloroethene	0.032	--	0.011	0.034	--	0.012	6.1
cis-1,3-Dichloropropene	0.032	--	0.011	0.034	--	0.012	6.1
Cyclohexane	5.9	J	0.23	0.54	UJ	0.24	166.5
Dibromochloromethane	0.032	--	0.0097	0.034	--	0.01	6.1
Dichlorodifluoromethane (CFC 12)	2.2	--	0.013	2.2	--	0.014	0.0
Dichloromethane (Methylene Chloride)	0.095	--	0.012	0.099	--	0.013	4.1
Ethylbenzene	0.08	--	0.018	0.058	--	0.02	31.9
Hexachlorobutadiene	0.032	--	0.02	0.034	--	0.021	6.1

Table G-4-3
Field Duplicate Sample Results, ST-106/SS-111, Winter Sampling,
SVMW-21/DUPE-10 (Concluded, Page 2 of 2)

Well Location ID:	SVMW-21			SVMW-21			
Field Sample ID:	SVMW-21-10			DUPE-10			
Sample Delivery Group:	P2200921			P2200932			
Sample Date:	2/28/2022			3/1/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	LOD ($\mu\text{g}/\text{m}^3$)	
Hexane	3.2	J	0.17	0.51	UJ	0.18	145.0
m,p-Xylenes	0.27	J	0.036	0.16	J	0.039	51.2
Methyl tert-Butyl Ether	0.033	--	0.018	0.036	--	0.02	8.7
Naphthalene	0.13	J	0.033	0.061	J	0.036	72.3
n-Heptane	2.5	J	0.13	0.51	UJ	0.14	132.2
o-Xylene	0.15	J	0.02	0.084	J	0.021	56.4
Styrene	0.059	J	0.018	0.034	UJ	0.02	53.8
Tetrachloroethene	0.79	--	0.024	0.81	--	0.026	2.5
Toluene	1	J	0.018	0.45	J	0.02	75.9
TPH as Gasoline	4.4	--	1.4	4.3	--	1.3	2.3
trans-1,2-Dichloroethene	0.033	--	0.017	0.036	--	0.018	8.7
trans-1,3-Dichloropropene	0.032	--	0.0073	0.034	--	0.0078	6.1
Trichloroethene	0.039	--	0.012	0.053	--	0.013	30.4
Trichlorofluoromethane	1	--	0.012	1.1	--	0.013	9.5
Vinyl Chloride	0.033	--	0.018	0.036	--	0.02	8.7

ID = identification

LOD = limit of detection

RPD = relative percent difference

 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter

-- = Validation qualifier not assigned

Table G-5. Qualified Sample Results Above Project Screening Level, ST-106/SS-111, Winter Sampling

Well Location ID	Field Sample ID	Sample Date	Sample Type	Analytical Method	Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	Validation Reason Code	Project Screening Level
No qualified sample results exceeded the project screening levels for the winter sampling session.									

ID = identification

 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter

Table G-6. Qualified Sample Results Above VISLs, ST-106/SS-111, Winter Sampling

Well Location ID	Field Sample ID	Sample Date	Sample Type	Analytical Method	Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	Validation Reason Code	VISL
No qualified sample results exceeded the project screening levels for the winter sampling session.									

FD = field duplicate

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

LOQ = Limit of Quantitation exceeds associated screening limit

N = normal / native field sample

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department)

Table G-7. Soil Vapor Results with PQLs Exceeding the Project Screening Level, ST-106/SS-111, Winter Sampling

Sample Location ID	Field Sample ID	Sample Date	Sample Type	SDG	Analytical Method	Dilution Factor	Analyte	CAS #	Result Value (µg/m ³)	Result Unit (µg/m ³)	Final Qualifier	MDL	LOQ/PQL	VISL
No sample PQLs exceeded the project screening levels for the summer sampling session.														

ID = identification

MDL = method detection limit

LOQ/PQL = limit of quantitation / project quantitation limit (equivalent acronyms)

µg/m³ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department)

Table G-8. Soil Vapor Results with PQLs Exceeding Associated VISLs, ST-106/SS-111, Winter Sampling

Sample Location ID	Field Sample ID	Sample Date	Sample Type	SDG	Analytical Method	Dilution Factor	Analyte	CAS #	Result Value	Result Unit	Final Qualifier	MDL	LOQ/PQL	VISL
SVMW-16	SVMW-16-15	3/1/2022	N	P2200932	TO-15 SIM	3.4	1,2-Dibromo 3-Chloropropane	96-12-8	0.071	µg/m ³	UJ	0.048	0.34	0.0536

ID = identification

SDG = sample delivery group

CAS # = Chemical Abstract Services (number)

MDL = method detection limit

LOQ/PQL = limit of quantitation / project quantitation limit (equivalent acronyms)

µg/m³ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department)

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Table G-9. Technical Data Completeness, ST-106/SS-111, Winter Sampling

Analytical Parameter	Field / Field Duplicate Sample Analytes	Qualified Analytes	Percent Technical Completeness^a
VOCs (TO-15 SIM and TO-15)	1,377	90	100

^a Percent technical completeness includes analytes qualified as estimated data. No data were rejected.

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LABORATORY REPORT

September 9, 2022

Jessie Moore
HazAir
6565 Americas Pkwy., Ste. 242
Albuquerque, NM 87110

RE: BFF

Dear Jessie:

Enclosed are the results of the samples submitted to our laboratory on August 9, 2022. For your reference, these analyses have been assigned our service request number P2203495.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

ALS | Environmental



By Sue Anderson at 7:57 am, Sep 09, 2022

Sue Anderson
Project Manager



Client: HazAir
Project: BFF

Service Request No: P2203495

CASE NARRATIVE

The samples were received intact under chain of custody on August 9, 2022 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

Volatile Organic Compound Analysis

The samples were also analyzed in both scan and SIM mode for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

Manual integrations were performed on the following sample(s) and analyte(s). Refer to the raw data for additional information.

Sample Identification(s)	Analyte(s)
P2203495-001	Carbon Tetrachloride
P2203495-002,-003,-004,-005,-006,-007,-008	Bromomethane
P2203495-006	1,4-Dioxane
P2203495-006	Dibromochloromethane

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.3 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413- 19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019 -10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946
<p>Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.</p> <p>Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.</p>		

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: HazAir
 Project ID: BFF

Service Request: P2203495

Date Received: 8/9/2022
 Time Received: 15:09

TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM
--------------------------	------------------	-----------------

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	2nd Pi (psig)	2nd Pf (psig)	TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM
BKGD-080822	P2203495-001	Air	8/8/2022	14:06	AS01728	-10.62	3.66			X	X	X
SVMW-23-5-2	P2203495-002	Air	8/8/2022	09:12	AC02013	-3.30	3.77			X	X	X
SVMW-23-10-2	P2203495-003	Air	8/8/2022	09:47	AC02503	-3.02	3.75			X	X	X
SVMW-23-15-2	P2203495-004	Air	8/8/2022	10:26	AC02175	-6.70	3.80			X	X	X
SVMW-20-5-2	P2203495-005	Air	8/8/2022	11:22	SC00104	-2.44	4.16			X	X	X
SVMW-20-10-2	P2203495-006	Air	8/8/2022	11:52	SC02235	-2.77	3.80	-2.90	1.67	X	X	X
SVMW-20-15-2	P2203495-007	Air	8/8/2022	12:21	AC01825	-2.66	4.21			X	X	X
SVMW-22-5-2	P2203495-008	Air	8/8/2022	13:05	AC00747	-3.28	3.83			X	X	X

**ALS Environmental
Sample Acceptance Check Form**

Client: HazAir Work order: P2203495
 Project: BFF
 Sample(s) received on: 8/9 - 10/22 Date opened: 8/9 - 10/22 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2203495-001.01	6.0 L Silonite Can					
P2203495-002.01	6.0 L Ambient Can					
P2203495-003.01	6.0 L Ambient Can					
P2203495-004.01	6.0 L Ambient Can					
P2203495-005.01	6.0 L Source Can					Received 8/10/22
P2203495-006.01	6.0 L Source Can					Received 8/10/22
P2203495-007.01	6.0 L Ambient Can					Received 8/10/22
P2203495-008.01	6.0 L Ambient Can					Received 8/10/22

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir

Client Project ID: BFF

ALS Project ID: P2203495

Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified

Instrument ID: HP 5890 II/GC21/FID

Analyst: Gilbert Gutierrez

Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)

Test Notes:

Date(s) Collected: 8/8/22

Date Received: 8/9 - 8/10/22

Date Analyzed: 8/11/22

Client Sample ID	ALS Sample ID	Container Dilution Factor	Injection Volume ml(s)	Result mg/m ³	LOQ mg/m ³	LOD mg/m ³	MDL mg/m ³	Data Qualifier
BKGD-080822	P2203495-001	4.50	1.0	17	81	13	4.1	J
SVMW-23-5-2	P2203495-002	1.62	1.0	7.5	29	4.7	1.5	J
SVMW-23-10-2	P2203495-003	1.58	1.0	7.3	28	4.6	1.4	J
SVMW-23-15-2	P2203495-004	2.31	1.0	12	42	6.7	2.1	J
SVMW-20-5-2	P2203495-005	1.54	1.0	8.0	28	4.5	1.4	J
SVMW-20-10-2	P2203495-006	1.55	1.0	6.4	28	4.5	1.4	J
SVMW-20-15-2	P2203495-007	1.57	1.0	7.0	28	4.6	1.4	J
SVMW-22-5-2	P2203495-008	1.62	1.0	7.4	29	4.7	1.5	J
Method Blank	P220811-MB	1.00	1.0	2.9	18	2.9	0.91	U

Parts Per Million results are based on a Molecular Weight of 86.18.

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220811-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/11/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result			ALS			Data Qualifier
	LCS / DLCS	LCS	DLCS	% Recovery		Acceptance	RPD	RPD	
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits	Limit	Limit	
TPH as Gasoline	7,190	8,430	8,000	117	111	89-124	5	14	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08112205.D
Date Analyzed: 8/11/22
Time Analyzed: 10:55

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220811-LCS	08112203.D	10:17
Duplicate Lab Control Sample	P220811-DLCS	08112204.D	10:36
BKGD-080822	P2203495-001	08112207.D	11:43
SVMW-23-5-2	P2203495-002	08112208.D	12:00
SVMW-23-10-2	P2203495-003	08112209.D	12:17
SVMW-23-15-2	P2203495-004	08112210.D	12:38
SVMW-20-5-2	P2203495-005	08112211.D	12:57
SVMW-20-10-2	P2203495-006	08112212.D	13:16
SVMW-20-15-2	P2203495-007	08112213.D	13:33
SVMW-22-5-2	P2203495-008	08112214.D	13:49

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: BKGD-080822
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01728

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/24/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -10.62 Final Pressure (psig): 3.66

Container Dilution Factor: 4.50

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	1.4	2.4	1.4	0.50	U
110-82-7	Cyclohexane	1.5	5.0	1.5	0.68	U
142-82-5	n-Heptane	0.68	2.4	1.4	0.38	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-23-5-2
Client Project ID: BFF

ALS Project ID: P2203495
ALS Sample ID: P2203495-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC02013

Date Collected: 8/8/22
Date Received: 8/9/22
Date Analyzed: 8/24/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.30

Final Pressure (psig): 3.77

Container Dilution Factor: 1.62

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.50	0.86	0.50	0.18	U
110-82-7	Cyclohexane	0.53	1.8	0.53	0.24	U
142-82-5	n-Heptane	0.50	0.86	0.50	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-23-10-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02503

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/24/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.02 Final Pressure (psig): 3.75

Container Dilution Factor: 1.58

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.49	0.84	0.49	0.17	U
110-82-7	Cyclohexane	0.76	1.7	0.52	0.24	J
142-82-5	n-Heptane	0.21	0.84	0.49	0.13	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-15-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02175

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/24/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -6.70 Final Pressure (psig): 3.80

Container Dilution Factor: 2.31

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.72	1.2	0.72	0.25	U
110-82-7	Cyclohexane	0.76	2.5	0.76	0.35	U
142-82-5	n-Heptane	0.72	1.2	0.72	0.20	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-20-5-2
Client Project ID: BFF

ALS Project ID: P2203495
ALS Sample ID: P2203495-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00104

Date Collected: 8/8/22
Date Received: 8/10/22
Date Analyzed: 8/24/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.44 Final Pressure (psig): 4.16

Container Dilution Factor: 1.54

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.48	0.82	0.48	0.17	U
110-82-7	Cyclohexane	0.51	1.7	0.51	0.23	U
142-82-5	n-Heptane	0.48	0.82	0.48	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-10-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-006

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02235

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/24/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.77 Final Pressure (psig): 3.80
 Initial Pressure 2 (psig): -2.90 Final Pressure 2 (psig): 1.67

Container Dilution Factor: 2.15

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.67	1.1	0.67	0.24	U
110-82-7	Cyclohexane	0.71	2.4	0.71	0.32	U
142-82-5	n-Heptane	0.67	1.1	0.67	0.18	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-15-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01825

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/24/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.66 Final Pressure (psig): 4.21

Container Dilution Factor: 1.57

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.49	0.83	0.49	0.17	U
110-82-7	Cyclohexane	0.52	1.7	0.52	0.24	U
142-82-5	n-Heptane	0.49	0.83	0.49	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-5-2
Client Project ID: BFF

ALS Project ID: P2203495
ALS Sample ID: P2203495-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00747

Date Collected: 8/8/22
Date Received: 8/10/22
Date Analyzed: 8/24/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.28 Final Pressure (psig): 3.83

Container Dilution Factor: 1.62

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.50	0.86	0.50	0.18	U
110-82-7	Cyclohexane	0.53	1.8	0.53	0.24	U
142-82-5	n-Heptane	0.50	0.86	0.50	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203495
ALS Sample ID: P220823-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/23/22
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 8/8/22
 Date(s) Received: 8/9 - 8/10/22
 Date(s) Analyzed: 8/23 - 8/24/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P220823-MB	96	106	105	70-130	
Lab Control Sample	P220823-LCS	98	97	101	70-130	
Duplicate Lab Control Sample	P220823-DLCS	103	98	99	70-130	
BKGD-080822	P2203495-001	96	101	103	70-130	
SVMW-23-5-2	P2203495-002	97	101	103	70-130	
SVMW-23-10-2	P2203495-003	100	100	101	70-130	
SVMW-23-15-2	P2203495-004	99	100	100	70-130	
SVMW-20-5-2	P2203495-005	99	97	95	70-130	
SVMW-20-10-2	P2203495-006	97	100	99	70-130	
SVMW-20-15-2	P2203495-007	98	102	98	70-130	
SVMW-22-5-2	P2203495-008	99	102	97	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220823-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/24/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	212	229	238	108	112	63-120	4	25	
110-82-7	Cyclohexane	422	417	427	99	101	70-117	2	25	
142-82-5	n-Heptane	212	206	216	97	102	69-123	5	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08232203.D
Date Analyzed: 8/23/22
Time Analyzed: 23:10

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220823-LCS	08232204.D	23:45
BKGD-080822	P2203495-001	08232205.D	00:20
SVMW-23-5-2	P2203495-002	08232206.D	00:54
SVMW-23-10-2	P2203495-003	08232207.D	01:29
SVMW-23-15-2	P2203495-004	08232208.D	02:04
SVMW-20-5-2	P2203495-005	08232209.D	02:38
Duplicate Lab Control Sample	P220823-DLCS	08232210.D	03:13
SVMW-20-10-2	P2203495-006	08232215.D	07:21
SVMW-20-15-2	P2203495-007	08232216.D	07:55
SVMW-22-5-2	P2203495-008	08232217.D	08:29

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 08232201.D
 Date Analyzed: 8/23/22
 Time Analyzed: 22:02

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	246790	11.31	1093621	13.43	253319	17.73
Upper Limit	345506	11.64	1531069	13.76	354647	18.06
Lower Limit	148074	10.98	656173	13.10	151991	17.40

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	211936	11.29	926098	13.42	196855	17.73
02	Lab Control Sample	223333	11.32	975159	13.43	234217	17.73
03	BKGD-080822	220822	11.30	947452	13.42	214652	17.73
04	SVMW-23-5-2	219145	11.30	968918	13.42	216021	17.73
05	SVMW-23-10-2	219631	11.30	977915	13.42	220671	17.73
06	SVMW-23-15-2	224523	11.29	984018	13.42	225269	17.73
07	SVMW-20-5-2	222458	11.30	971390	13.42	232553	17.73
08	Duplicate Lab Control Sample	248209	11.31	1093670	13.43	260062	17.73
09	SVMW-20-10-2	235271	11.30	1040145	13.42	234597	17.73
10	SVMW-20-15-2	232328	11.30	1032771	13.42	226523	17.73
11	SVMW-22-5-2	230183	11.30	1021086	13.42	227715	17.73
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area

AREA LOWER LIMIT = 60% of internal standard area

RT UPPER LIMIT = 0.33 minutes of internal standard RT

RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: BKGD-080822
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01728

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -10.62 Final Pressure (psig): 3.66

Container Dilution Factor: 4.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.8	0.23	0.095	0.038	
74-87-3	Chloromethane	0.74	0.23	0.19	0.12	
75-01-4	Vinyl Chloride	0.11	0.11	0.11	0.054	U
106-99-0	1,3-Butadiene	0.19	0.23	0.19	0.036	U
74-83-9	Bromomethane	0.12	0.11	0.099	0.030	
75-00-3	Chloroethane	0.041	0.11	0.099	0.035	J
107-02-8	Acrolein	0.62	0.90	0.45	0.16	J
67-64-1	Acetone	73	11	2.4	1.0	
75-69-4	Trichlorofluoromethane	0.88	0.23	0.095	0.036	
75-35-4	1,1-Dichloroethene	0.099	0.11	0.099	0.040	U
75-09-2	Methylene Chloride	0.24	0.45	0.19	0.035	J
76-13-1	Trichlorotrifluoroethane	0.37	0.11	0.099	0.036	
156-60-5	trans-1,2-Dichloroethene	0.099	0.11	0.099	0.050	U
75-34-3	1,1-Dichloroethane	0.099	0.11	0.099	0.037	U
1634-04-4	Methyl tert-Butyl Ether	5.6	0.11	0.099	0.054	
156-59-2	cis-1,2-Dichloroethene	0.095	0.11	0.095	0.032	U
67-66-3	Chloroform	0.076	0.45	0.19	0.036	J
107-06-2	1,2-Dichloroethane	0.77	0.11	0.099	0.037	
71-55-6	1,1,1-Trichloroethane	0.095	0.11	0.095	0.041	U
71-43-2	Benzene	0.64	0.34	0.19	0.068	
56-23-5	Carbon Tetrachloride	0.47	0.11	0.095	0.032	
78-87-5	1,2-Dichloropropane	0.16	0.11	0.099	0.027	
75-27-4	Bromodichloromethane	0.099	0.11	0.099	0.026	U
79-01-6	Trichloroethene	0.095	0.11	0.095	0.035	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: BKGD-080822
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01728

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -10.62 Final Pressure (psig): 3.66

Container Dilution Factor: 4.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.099	0.45	0.099	0.039	U
10061-01-5	cis-1,3-Dichloropropene	0.095	0.23	0.095	0.032	U
10061-02-6	trans-1,3-Dichloropropene	0.095	0.23	0.095	0.022	U
79-00-5	1,1,2-Trichloroethane	0.095	0.45	0.095	0.027	U
108-88-3	Toluene	2.4	0.45	0.19	0.054	B
124-48-1	Dibromochloromethane	0.095	0.11	0.095	0.029	U
106-93-4	1,2-Dibromoethane	0.095	0.11	0.095	0.030	U
127-18-4	Tetrachloroethene	0.22	0.11	0.095	0.039	
108-90-7	Chlorobenzene	0.095	0.45	0.095	0.044	U
100-41-4	Ethylbenzene	1.2	0.45	0.095	0.054	
179601-23-1	m,p-Xylenes	1.7	0.45	0.19	0.11	
100-42-5	Styrene	0.61	0.45	0.19	0.054	
95-47-6	o-Xylene	0.94	0.45	0.095	0.059	
79-34-5	1,1,2,2-Tetrachloroethane	0.095	0.11	0.095	0.039	U
108-67-8	1,3,5-Trimethylbenzene	0.17	0.45	0.095	0.063	J
95-63-6	1,2,4-Trimethylbenzene	1.0	0.45	0.095	0.072	
541-73-1	1,3-Dichlorobenzene	0.23	0.11	0.095	0.077	
106-46-7	1,4-Dichlorobenzene	0.095	0.11	0.095	0.090	U
95-50-1	1,2-Dichlorobenzene	0.095	0.11	0.095	0.081	U
96-12-8	1,2-Dibromo-3-chloropropane	0.095	0.45	0.095	0.063	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.23	0.19	0.090	U
91-20-3	Naphthalene	0.37	0.45	0.18	0.099	J
87-68-3	Hexachlorobutadiene	0.095	0.45	0.095	0.059	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-5-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02013

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.30 Final Pressure (psig): 3.77

Container Dilution Factor: 1.62

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	3.3	0.081	0.034	0.014	
74-87-3	Chloromethane	0.068	0.081	0.068	0.042	U
75-01-4	Vinyl Chloride	0.039	0.041	0.039	0.019	U
106-99-0	1,3-Butadiene	0.068	0.081	0.068	0.013	U
74-83-9	Bromomethane	0.041	0.041	0.036	0.011	
75-00-3	Chloroethane	0.036	0.041	0.036	0.013	U
107-02-8	Acrolein	0.44	0.32	0.16	0.057	
67-64-1	Acetone	8.5	4.1	0.86	0.37	
75-69-4	Trichlorofluoromethane	3.1	0.081	0.034	0.013	
75-35-4	1,1-Dichloroethene	0.036	0.041	0.036	0.014	U
75-09-2	Methylene Chloride	0.054	0.16	0.068	0.013	J
76-13-1	Trichlorotrifluoroethane	0.40	0.041	0.036	0.013	
156-60-5	trans-1,2-Dichloroethene	0.036	0.041	0.036	0.018	U
75-34-3	1,1-Dichloroethane	0.068	0.041	0.036	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.57	0.041	0.036	0.019	
156-59-2	cis-1,2-Dichloroethene	0.034	0.041	0.034	0.012	U
67-66-3	Chloroform	0.11	0.16	0.070	0.013	J
107-06-2	1,2-Dichloroethane	0.036	0.041	0.036	0.013	U
71-55-6	1,1,1-Trichloroethane	0.023	0.041	0.034	0.015	J
71-43-2	Benzene	0.36	0.12	0.068	0.024	
56-23-5	Carbon Tetrachloride	0.11	0.041	0.034	0.012	
78-87-5	1,2-Dichloropropane	0.045	0.041	0.036	0.0099	
75-27-4	Bromodichloromethane	0.012	0.041	0.036	0.0094	J
79-01-6	Trichloroethene	0.034	0.041	0.034	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-5-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02013

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.30 Final Pressure (psig): 3.77

Container Dilution Factor: 1.62

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.036	0.16	0.036	0.014	U
10061-01-5	cis-1,3-Dichloropropene	0.034	0.081	0.034	0.012	U
10061-02-6	trans-1,3-Dichloropropene	0.034	0.081	0.034	0.0078	U
79-00-5	1,1,2-Trichloroethane	0.034	0.16	0.034	0.0096	U
108-88-3	Toluene	0.54	0.16	0.070	0.019	B
124-48-1	Dibromochloromethane	0.034	0.041	0.034	0.010	U
106-93-4	1,2-Dibromoethane	0.034	0.041	0.034	0.011	U
127-18-4	Tetrachloroethene	0.47	0.041	0.034	0.014	
108-90-7	Chlorobenzene	0.034	0.16	0.034	0.016	U
100-41-4	Ethylbenzene	0.27	0.16	0.034	0.019	
179601-23-1	m,p-Xylenes	0.41	0.16	0.070	0.039	
100-42-5	Styrene	0.14	0.16	0.068	0.019	J
95-47-6	o-Xylene	0.28	0.16	0.034	0.021	
79-34-5	1,1,1,2-Tetrachloroethane	0.034	0.041	0.034	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.065	0.16	0.034	0.023	J
95-63-6	1,2,4-Trimethylbenzene	0.40	0.16	0.034	0.026	
541-73-1	1,3-Dichlorobenzene	0.13	0.041	0.034	0.028	
106-46-7	1,4-Dichlorobenzene	0.034	0.041	0.034	0.032	U
95-50-1	1,2-Dichlorobenzene	0.034	0.041	0.034	0.029	U
96-12-8	1,2-Dibromo-3-chloropropane	0.034	0.16	0.034	0.023	U
120-82-1	1,2,4-Trichlorobenzene	0.037	0.081	0.070	0.032	J
91-20-3	Naphthalene	0.46	0.16	0.066	0.036	
87-68-3	Hexachlorobutadiene	0.034	0.16	0.034	0.021	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-10-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02503

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.02 Final Pressure (psig): 3.75

Container Dilution Factor: 1.58

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	4.0	0.079	0.033	0.013	
74-87-3	Chloromethane	0.066	0.079	0.066	0.041	U
75-01-4	Vinyl Chloride	0.038	0.040	0.038	0.019	U
106-99-0	1,3-Butadiene	0.066	0.079	0.066	0.012	U
74-83-9	Bromomethane	0.083	0.040	0.035	0.011	
75-00-3	Chloroethane	0.018	0.040	0.035	0.012	J
107-02-8	Acrolein	0.79	0.32	0.16	0.055	
67-64-1	Acetone	11	4.0	0.84	0.36	
75-69-4	Trichlorofluoromethane	3.4	0.079	0.033	0.013	
75-35-4	1,1-Dichloroethene	0.035	0.040	0.035	0.014	U
75-09-2	Methylene Chloride	0.52	0.16	0.066	0.012	
76-13-1	Trichlorotrifluoroethane	0.42	0.040	0.035	0.013	
156-60-5	trans-1,2-Dichloroethene	0.035	0.040	0.035	0.017	U
75-34-3	1,1-Dichloroethane	0.066	0.040	0.035	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.51	0.040	0.035	0.019	
156-59-2	cis-1,2-Dichloroethene	0.033	0.040	0.033	0.011	U
67-66-3	Chloroform	0.17	0.16	0.068	0.013	
107-06-2	1,2-Dichloroethane	0.038	0.040	0.035	0.013	J
71-55-6	1,1,1-Trichloroethane	0.020	0.040	0.033	0.014	J
71-43-2	Benzene	0.53	0.12	0.066	0.024	
56-23-5	Carbon Tetrachloride	0.13	0.040	0.033	0.011	
78-87-5	1,2-Dichloropropane	0.058	0.040	0.035	0.0096	
75-27-4	Bromodichloromethane	0.035	0.040	0.035	0.0092	U
79-01-6	Trichloroethene	0.018	0.040	0.033	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-10-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02503

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.02 Final Pressure (psig): 3.75

Container Dilution Factor: 1.58

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.035	0.16	0.035	0.014	U
10061-01-5	cis-1,3-Dichloropropene	0.033	0.079	0.033	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.033	0.079	0.033	0.0076	U
79-00-5	1,1,2-Trichloroethane	0.033	0.16	0.033	0.0093	U
108-88-3	Toluene	3.1	0.16	0.068	0.019	B
124-48-1	Dibromochloromethane	0.033	0.040	0.033	0.010	U
106-93-4	1,2-Dibromoethane	0.033	0.040	0.033	0.011	U
127-18-4	Tetrachloroethene	0.45	0.040	0.033	0.014	
108-90-7	Chlorobenzene	0.033	0.16	0.033	0.015	U
100-41-4	Ethylbenzene	0.42	0.16	0.033	0.019	
179601-23-1	m,p-Xylenes	0.68	0.16	0.068	0.038	
100-42-5	Styrene	0.44	0.16	0.066	0.019	
95-47-6	o-Xylene	0.39	0.16	0.033	0.021	
79-34-5	1,1,2,2-Tetrachloroethane	0.033	0.040	0.033	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.097	0.16	0.033	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.43	0.16	0.033	0.025	
541-73-1	1,3-Dichlorobenzene	0.16	0.040	0.033	0.027	
106-46-7	1,4-Dichlorobenzene	0.039	0.040	0.033	0.032	J
95-50-1	1,2-Dichlorobenzene	0.033	0.040	0.033	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.033	0.16	0.033	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.10	0.079	0.068	0.032	
91-20-3	Naphthalene	0.47	0.16	0.065	0.035	
87-68-3	Hexachlorobutadiene	0.033	0.16	0.033	0.021	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-15-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02175

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -6.70 Final Pressure (psig): 3.80

Container Dilution Factor: 2.31

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	5.9	0.12	0.049	0.020	
74-87-3	Chloromethane	0.097	0.12	0.097	0.060	U
75-01-4	Vinyl Chloride	0.055	0.058	0.055	0.028	U
106-99-0	1,3-Butadiene	0.097	0.12	0.097	0.018	U
74-83-9	Bromomethane	0.070	0.058	0.051	0.015	
75-00-3	Chloroethane	0.051	0.058	0.051	0.018	U
107-02-8	Acrolein	0.27	0.46	0.23	0.081	J
67-64-1	Acetone	11	5.8	1.2	0.53	
75-69-4	Trichlorofluoromethane	4.6	0.12	0.049	0.019	
75-35-4	1,1-Dichloroethene	0.051	0.058	0.051	0.020	U
75-09-2	Methylene Chloride	0.14	0.23	0.097	0.018	J
76-13-1	Trichlorotrifluoroethane	0.44	0.058	0.051	0.019	
156-60-5	trans-1,2-Dichloroethene	0.051	0.058	0.051	0.025	U
75-34-3	1,1-Dichloroethane	0.11	0.058	0.051	0.019	
1634-04-4	Methyl tert-Butyl Ether	0.90	0.058	0.051	0.028	
156-59-2	cis-1,2-Dichloroethene	0.049	0.058	0.049	0.017	U
67-66-3	Chloroform	0.41	0.23	0.099	0.018	
107-06-2	1,2-Dichloroethane	0.039	0.058	0.051	0.019	J
71-55-6	1,1,1-Trichloroethane	0.049	0.058	0.049	0.021	U
71-43-2	Benzene	0.18	0.17	0.097	0.035	
56-23-5	Carbon Tetrachloride	0.19	0.058	0.049	0.016	
78-87-5	1,2-Dichloropropane	0.077	0.058	0.051	0.014	
75-27-4	Bromodichloromethane	0.051	0.058	0.051	0.013	U
79-01-6	Trichloroethene	0.049	0.058	0.049	0.018	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-23-15-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02175

Date Collected: 8/8/22
 Date Received: 8/9/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -6.70 Final Pressure (psig): 3.80

Container Dilution Factor: 2.31

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.051	0.23	0.051	0.020	U
10061-01-5	cis-1,3-Dichloropropene	0.049	0.12	0.049	0.016	U
10061-02-6	trans-1,3-Dichloropropene	0.049	0.12	0.049	0.011	U
79-00-5	1,1,2-Trichloroethane	0.049	0.23	0.049	0.014	U
108-88-3	Toluene	0.83	0.23	0.099	0.028	B
124-48-1	Dibromochloromethane	0.031	0.058	0.049	0.015	J
106-93-4	1,2-Dibromoethane	0.049	0.058	0.049	0.015	U
127-18-4	Tetrachloroethene	0.51	0.058	0.049	0.020	
108-90-7	Chlorobenzene	0.049	0.23	0.049	0.022	U
100-41-4	Ethylbenzene	0.40	0.23	0.049	0.028	
179601-23-1	m,p-Xylenes	0.61	0.23	0.099	0.055	
100-42-5	Styrene	0.16	0.23	0.097	0.028	J
95-47-6	o-Xylene	0.40	0.23	0.049	0.030	
79-34-5	1,1,2,2-Tetrachloroethane	0.031	0.058	0.049	0.020	J
108-67-8	1,3,5-Trimethylbenzene	0.12	0.23	0.049	0.032	J
95-63-6	1,2,4-Trimethylbenzene	0.51	0.23	0.049	0.037	
541-73-1	1,3-Dichlorobenzene	0.21	0.058	0.049	0.039	
106-46-7	1,4-Dichlorobenzene	0.049	0.058	0.049	0.046	U
95-50-1	1,2-Dichlorobenzene	0.049	0.058	0.049	0.042	U
96-12-8	1,2-Dibromo-3-chloropropane	0.049	0.23	0.049	0.032	U
120-82-1	1,2,4-Trichlorobenzene	0.099	0.12	0.099	0.046	U
91-20-3	Naphthalene	0.34	0.23	0.095	0.051	
87-68-3	Hexachlorobutadiene	0.049	0.23	0.049	0.030	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-5-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC00104

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.44 Final Pressure (psig): 4.16

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.8	0.077	0.032	0.013	
74-87-3	Chloromethane	0.065	0.077	0.065	0.040	U
75-01-4	Vinyl Chloride	0.037	0.039	0.037	0.018	U
106-99-0	1,3-Butadiene	0.065	0.077	0.065	0.012	U
74-83-9	Bromomethane	0.086	0.039	0.034	0.010	
75-00-3	Chloroethane	0.16	0.039	0.034	0.012	
107-02-8	Acrolein	1.3	0.31	0.15	0.054	
67-64-1	Acetone	14	3.9	0.82	0.35	
75-69-4	Trichlorofluoromethane	1.0	0.077	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.034	0.039	0.034	0.014	U
75-09-2	Methylene Chloride	0.039	0.15	0.065	0.012	J
76-13-1	Trichlorotrifluoroethane	0.40	0.039	0.034	0.012	
156-60-5	trans-1,2-Dichloroethene	0.034	0.039	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.068	0.039	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.53	0.039	0.034	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.039	0.032	0.011	U
67-66-3	Chloroform	1.2	0.15	0.066	0.012	
107-06-2	1,2-Dichloroethane	0.026	0.039	0.034	0.013	J
71-55-6	1,1,1-Trichloroethane	0.032	0.039	0.032	0.014	U
71-43-2	Benzene	0.16	0.12	0.065	0.023	
56-23-5	Carbon Tetrachloride	0.14	0.039	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.017	0.039	0.034	0.0094	J
75-27-4	Bromodichloromethane	0.075	0.039	0.034	0.0089	
79-01-6	Trichloroethene	0.015	0.039	0.032	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-5-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC00104

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.44 Final Pressure (psig): 4.16

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.066	0.15	0.034	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.032	0.077	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.077	0.032	0.0074	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0091	U
108-88-3	Toluene	0.33	0.15	0.066	0.018	B
124-48-1	Dibromochloromethane	0.011	0.039	0.032	0.0099	J
106-93-4	1,2-Dibromoethane	0.032	0.039	0.032	0.010	U
127-18-4	Tetrachloroethene	0.44	0.039	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.19	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.32	0.15	0.066	0.037	
100-42-5	Styrene	0.11	0.15	0.065	0.018	J
95-47-6	o-Xylene	0.28	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.039	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.061	0.15	0.032	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.15	0.032	0.025	
541-73-1	1,3-Dichlorobenzene	0.12	0.039	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.039	0.032	0.031	U
95-50-1	1,2-Dichlorobenzene	0.032	0.039	0.032	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.057	0.077	0.066	0.031	J
91-20-3	Naphthalene	0.69	0.15	0.063	0.034	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-10-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02235

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.77 Final Pressure (psig): 3.80

Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.078	0.033	0.013	
74-87-3	Chloromethane	0.065	0.078	0.065	0.040	U
75-01-4	Vinyl Chloride	0.037	0.039	0.037	0.019	U
106-99-0	1,3-Butadiene	0.065	0.078	0.065	0.012	U
74-83-9	Bromomethane	0.050	0.039	0.034	0.010	
75-00-3	Chloroethane	0.033	0.039	0.034	0.012	J
107-02-8	Acrolein	0.86	0.31	0.16	0.054	
67-64-1	Acetone	9.8	3.9	0.82	0.36	
75-69-4	Trichlorofluoromethane	1.1	0.078	0.033	0.013	
75-35-4	1,1-Dichloroethene	0.034	0.039	0.034	0.014	U
75-09-2	Methylene Chloride	0.088	0.16	0.065	0.012	J
76-13-1	Trichlorotrifluoroethane	0.42	0.039	0.034	0.013	
156-60-5	trans-1,2-Dichloroethene	0.034	0.039	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.054	0.039	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.37	0.039	0.034	0.019	
156-59-2	cis-1,2-Dichloroethene	0.033	0.039	0.033	0.011	U
67-66-3	Chloroform	1.4	0.16	0.067	0.012	
107-06-2	1,2-Dichloroethane	0.069	0.039	0.034	0.013	
71-55-6	1,1,1-Trichloroethane	0.033	0.039	0.033	0.014	U
71-43-2	Benzene	0.15	0.12	0.065	0.023	
56-23-5	Carbon Tetrachloride	0.16	0.039	0.033	0.011	
78-87-5	1,2-Dichloropropane	0.034	0.039	0.034	0.0095	U
75-27-4	Bromodichloromethane	0.081	0.039	0.034	0.0090	
79-01-6	Trichloroethene	0.028	0.039	0.033	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-20-10-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02235

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.77 Final Pressure (psig): 3.80

Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.15	0.16	0.034	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.033	0.078	0.033	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.033	0.078	0.033	0.0074	U
79-00-5	1,1,2-Trichloroethane	0.033	0.16	0.033	0.0091	U
108-88-3	Toluene	0.37	0.16	0.067	0.019	B
124-48-1	Dibromochloromethane	0.033	0.039	0.033	0.0099	U
106-93-4	1,2-Dibromoethane	0.033	0.039	0.033	0.010	U
127-18-4	Tetrachloroethene	0.28	0.039	0.033	0.013	
108-90-7	Chlorobenzene	0.033	0.16	0.033	0.015	U
100-41-4	Ethylbenzene	0.12	0.16	0.033	0.019	J
179601-23-1	m,p-Xylenes	0.28	0.16	0.067	0.037	
100-42-5	Styrene	0.088	0.16	0.065	0.019	J
95-47-6	o-Xylene	0.26	0.16	0.033	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.033	0.039	0.033	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.085	0.16	0.033	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.38	0.16	0.033	0.025	
541-73-1	1,3-Dichlorobenzene	0.059	0.039	0.033	0.026	
106-46-7	1,4-Dichlorobenzene	0.033	0.039	0.033	0.031	U
95-50-1	1,2-Dichlorobenzene	0.033	0.039	0.033	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.033	0.16	0.033	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.067	0.078	0.067	0.031	U
91-20-3	Naphthalene	0.72	0.16	0.064	0.034	
87-68-3	Hexachlorobutadiene	0.033	0.16	0.033	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-15-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01825

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.66 Final Pressure (psig): 4.21

Container Dilution Factor: 1.57

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.079	0.033	0.013	
74-87-3	Chloromethane	0.066	0.079	0.066	0.041	U
75-01-4	Vinyl Chloride	0.038	0.039	0.038	0.019	U
106-99-0	1,3-Butadiene	0.066	0.079	0.066	0.012	U
74-83-9	Bromomethane	0.095	0.039	0.035	0.011	
75-00-3	Chloroethane	0.035	0.039	0.035	0.012	J
107-02-8	Acrolein	0.87	0.31	0.16	0.055	
67-64-1	Acetone	9.4	3.9	0.83	0.36	
75-69-4	Trichlorofluoromethane	1.1	0.079	0.033	0.013	
75-35-4	1,1-Dichloroethene	0.035	0.039	0.035	0.014	U
75-09-2	Methylene Chloride	0.044	0.16	0.066	0.012	J
76-13-1	Trichlorotrifluoroethane	0.42	0.039	0.035	0.013	
156-60-5	trans-1,2-Dichloroethene	0.035	0.039	0.035	0.017	U
75-34-3	1,1-Dichloroethane	0.050	0.039	0.035	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.33	0.039	0.035	0.019	
156-59-2	cis-1,2-Dichloroethene	0.033	0.039	0.033	0.011	U
67-66-3	Chloroform	1.5	0.16	0.068	0.013	
107-06-2	1,2-Dichloroethane	0.015	0.039	0.035	0.013	J
71-55-6	1,1,1-Trichloroethane	0.033	0.039	0.033	0.014	U
71-43-2	Benzene	0.15	0.12	0.066	0.024	
56-23-5	Carbon Tetrachloride	0.16	0.039	0.033	0.011	
78-87-5	1,2-Dichloropropane	0.016	0.039	0.035	0.0096	J
75-27-4	Bromodichloromethane	0.079	0.039	0.035	0.0091	
79-01-6	Trichloroethene	0.033	0.039	0.033	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-20-15-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01825

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.66 Final Pressure (psig): 4.21

Container Dilution Factor: 1.57

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.052	0.16	0.035	0.014	J
10061-01-5	cis-1,3-Dichloropropene	0.033	0.079	0.033	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.033	0.079	0.033	0.0075	U
79-00-5	1,1,2-Trichloroethane	0.033	0.16	0.033	0.0093	U
108-88-3	Toluene	0.38	0.16	0.068	0.019	B
124-48-1	Dibromochloromethane	0.033	0.039	0.033	0.010	U
106-93-4	1,2-Dibromoethane	0.033	0.039	0.033	0.011	U
127-18-4	Tetrachloroethene	0.30	0.039	0.033	0.014	
108-90-7	Chlorobenzene	0.033	0.16	0.033	0.015	U
100-41-4	Ethylbenzene	0.16	0.16	0.033	0.019	
179601-23-1	m,p-Xylenes	0.28	0.16	0.068	0.038	
100-42-5	Styrene	0.081	0.16	0.066	0.019	J
95-47-6	o-Xylene	0.18	0.16	0.033	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.033	0.039	0.033	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.067	0.16	0.033	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.35	0.16	0.033	0.025	
541-73-1	1,3-Dichlorobenzene	0.080	0.039	0.033	0.027	
106-46-7	1,4-Dichlorobenzene	0.033	0.039	0.033	0.031	U
95-50-1	1,2-Dichlorobenzene	0.033	0.039	0.033	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.033	0.16	0.033	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.068	0.079	0.068	0.031	U
91-20-3	Naphthalene	0.28	0.16	0.064	0.035	
87-68-3	Hexachlorobutadiene	0.033	0.16	0.033	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-5-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00747

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.28 Final Pressure (psig): 3.83

Container Dilution Factor: 1.62

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.081	0.034	0.014	
74-87-3	Chloromethane	0.068	0.081	0.068	0.042	U
75-01-4	Vinyl Chloride	0.039	0.041	0.039	0.019	U
106-99-0	1,3-Butadiene	0.068	0.081	0.068	0.013	U
74-83-9	Bromomethane	0.074	0.041	0.036	0.011	
75-00-3	Chloroethane	0.044	0.041	0.036	0.013	
107-02-8	Acrolein	2.2	0.32	0.16	0.057	
67-64-1	Acetone	66	4.1	0.86	0.37	
75-69-4	Trichlorofluoromethane	1.2	0.081	0.034	0.013	
75-35-4	1,1-Dichloroethene	0.036	0.041	0.036	0.014	U
75-09-2	Methylene Chloride	0.027	0.16	0.068	0.013	J
76-13-1	Trichlorotrifluoroethane	0.37	0.041	0.036	0.013	
156-60-5	trans-1,2-Dichloroethene	0.036	0.041	0.036	0.018	U
75-34-3	1,1-Dichloroethane	0.066	0.041	0.036	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.50	0.041	0.036	0.019	
156-59-2	cis-1,2-Dichloroethene	0.034	0.041	0.034	0.012	U
67-66-3	Chloroform	0.37	0.16	0.070	0.013	
107-06-2	1,2-Dichloroethane	0.072	0.041	0.036	0.013	
71-55-6	1,1,1-Trichloroethane	0.034	0.041	0.034	0.015	U
71-43-2	Benzene	0.19	0.12	0.068	0.024	
56-23-5	Carbon Tetrachloride	0.18	0.041	0.034	0.012	
78-87-5	1,2-Dichloropropane	0.012	0.041	0.036	0.0099	J
75-27-4	Bromodichloromethane	0.027	0.041	0.036	0.0094	J
79-01-6	Trichloroethene	0.029	0.041	0.034	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-5-2
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P2203495-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC00747

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.28 Final Pressure (psig): 3.83

Container Dilution Factor: 1.62

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.097	0.16	0.036	0.014	J
10061-01-5	cis-1,3-Dichloropropene	0.034	0.081	0.034	0.012	U
10061-02-6	trans-1,3-Dichloropropene	0.034	0.081	0.034	0.0078	U
79-00-5	1,1,2-Trichloroethane	0.034	0.16	0.034	0.0096	U
108-88-3	Toluene	0.34	0.16	0.070	0.019	B
124-48-1	Dibromochloromethane	0.034	0.041	0.034	0.010	U
106-93-4	1,2-Dibromoethane	0.034	0.041	0.034	0.011	U
127-18-4	Tetrachloroethene	0.23	0.041	0.034	0.014	
108-90-7	Chlorobenzene	0.034	0.16	0.034	0.016	U
100-41-4	Ethylbenzene	0.12	0.16	0.034	0.019	J
179601-23-1	m,p-Xylenes	0.25	0.16	0.070	0.039	
100-42-5	Styrene	0.093	0.16	0.068	0.019	J
95-47-6	o-Xylene	0.19	0.16	0.034	0.021	
79-34-5	1,1,1,2-Tetrachloroethane	0.034	0.041	0.034	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.054	0.16	0.034	0.023	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.16	0.034	0.026	
541-73-1	1,3-Dichlorobenzene	0.071	0.041	0.034	0.028	
106-46-7	1,4-Dichlorobenzene	0.034	0.041	0.034	0.032	U
95-50-1	1,2-Dichlorobenzene	0.034	0.041	0.034	0.029	U
96-12-8	1,2-Dibromo-3-chloropropane	0.034	0.16	0.034	0.023	U
120-82-1	1,2,4-Trichlorobenzene	0.070	0.081	0.070	0.032	U
91-20-3	Naphthalene	0.68	0.16	0.066	0.036	
87-68-3	Hexachlorobutadiene	0.034	0.16	0.034	0.021	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220816-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.021	0.050	0.021	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.024	0.025	0.024	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.53	2.5	0.53	0.23	U
75-69-4	Trichlorofluoromethane	0.021	0.050	0.021	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220816-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.025	0.10	0.043	0.012	J
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0086	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.042	0.10	0.042	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220817-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.021	0.050	0.021	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.024	0.025	0.024	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.53	2.5	0.53	0.23	U
75-69-4	Trichlorofluoromethane	0.021	0.050	0.021	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220817-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.021	0.10	0.043	0.012	J
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0086	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.042	0.10	0.042	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 8/8/22
 Date(s) Received: 8/9 - 8/10/22
 Date(s) Analyzed: 8/16 - 8/17/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		% Recovered	% Recovered	% Recovered		
Method Blank	P220816-MB	94	97	106	70-130	
Method Blank	P220817-MB	96	99	100	70-130	
Lab Control Sample	P220816-LCS	94	97	109	70-130	
Lab Control Sample	P220817-LCS	97	98	103	70-130	
Duplicate Lab Control Sample	P220816-DLCS	94	96	106	70-130	
Duplicate Lab Control Sample	P220817-DLCS	96	98	100	70-130	
BKGD-080822	P2203495-001	96	97	94	70-130	
SVMW-23-5-2	P2203495-002	98	96	99	70-130	
SVMW-23-10-2	P2203495-003	101	96	96	70-130	
SVMW-23-15-2	P2203495-004	102	96	94	70-130	
SVMW-20-5-2	P2203495-005	100	98	95	70-130	
SVMW-20-10-2	P2203495-006	102	91	87	70-130	
SVMW-20-15-2	P2203495-007	103	96	95	70-130	
SVMW-22-5-2	P2203495-008	104	97	95	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220816-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	19.2	19.2	92	92	59-128	0	25	
74-87-3	Chloromethane	20.6	19.2	18.6	93	90	59-132	3	25	
75-01-4	Vinyl Chloride	20.8	21.4	21.4	103	103	64-127	0	25	
106-99-0	1,3-Butadiene	20.6	20.4	20.2	99	98	66-134	1	25	
74-83-9	Bromomethane	20.6	18.9	18.8	92	91	63-134	1	25	
75-00-3	Chloroethane	20.6	18.4	18.5	89	90	63-127	1	25	
107-02-8	Acrolein	41.6	36.2	36.1	87	87	62-126	0	25	
67-64-1	Acetone	102	84.1	84.1	82	82	58-128	0	25	
75-69-4	Trichlorofluoromethane	20.2	18.7	18.7	93	93	62-126	0	25	
75-35-4	1,1-Dichloroethene	21.0	19.5	19.5	93	93	61-133	0	25	
75-09-2	Methylene Chloride	20.8	17.7	17.8	85	86	62-115	1	25	
76-13-1	Trichlorotrifluoroethane	21.6	19.8	19.8	92	92	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	19.5	19.3	94	93	67-124	1	25	
75-34-3	1,1-Dichloroethane	21.4	18.9	19.0	88	89	68-126	1	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.6	18.6	90	90	66-126	0	25	
156-59-2	cis-1,2-Dichloroethene	20.6	19.4	19.3	94	94	70-121	0	25	
67-66-3	Chloroform	21.0	19.3	19.4	92	92	68-123	0	25	
107-06-2	1,2-Dichloroethane	21.0	18.7	18.8	89	90	65-128	1	25	
71-55-6	1,1,1-Trichloroethane	20.8	19.0	19.1	91	92	68-125	1	25	
71-43-2	Benzene	20.8	18.8	19.0	90	91	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	18.6	18.7	92	93	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	18.4	18.5	89	90	69-123	1	25	
75-27-4	Bromodichloromethane	20.8	18.7	18.7	90	90	72-128	0	25	
79-01-6	Trichloroethene	20.4	19.8	19.8	97	97	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220816-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
123-91-1	1,4-Dioxane	20.6	19.0	18.9	92	92	71-122	0	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	19.1	19.2	92	92	70-128	0	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	18.8	18.9	94	95	75-133	1	25	
79-00-5	1,1,2-Trichloroethane	20.8	19.0	19.1	91	92	73-119	1	25	
108-88-3	Toluene	20.6	17.7	17.8	86	86	66-119	0	25	
124-48-1	Dibromochloromethane	21.0	18.7	19.2	89	91	70-130	2	25	
106-93-4	1,2-Dibromoethane	20.8	19.4	19.4	93	93	74-122	0	25	
127-18-4	Tetrachloroethene	21.2	19.8	19.8	93	93	66-124	0	25	
108-90-7	Chlorobenzene	20.6	21.1	21.7	102	105	70-119	3	25	
100-41-4	Ethylbenzene	20.6	20.3	20.9	99	101	70-124	2	25	
179601-23-1	m,p-Xylenes	41.6	39.5	40.7	95	98	61-134	3	25	
100-42-5	Styrene	20.2	20.1	20.7	100	102	73-127	2	25	
95-47-6	o-Xylene	20.8	20.7	21.3	100	102	67-125	2	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	20.6	21.2	99	102	65-127	3	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	21.4	22.0	103	106	67-130	3	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	21.1	21.6	102	105	66-132	3	25	
541-73-1	1,3-Dichlorobenzene	20.8	21.6	22.1	104	106	65-130	2	25	
106-46-7	1,4-Dichlorobenzene	21.0	20.8	21.4	99	102	60-131	3	25	
95-50-1	1,2-Dichlorobenzene	21.0	20.8	21.3	99	101	63-129	2	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	39.1	39.9	97	99	64-143	2	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	40.4	41.2	96	98	55-142	2	25	
91-20-3	Naphthalene	21.0	19.8	20.2	94	96	57-138	2	25	
87-68-3	Hexachlorobutadiene	21.2	18.6	18.8	88	89	56-138	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220817-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	19.7	19.8	95	95	59-128	0	25	
74-87-3	Chloromethane	20.6	20.1	20.1	98	98	59-132	0	25	
75-01-4	Vinyl Chloride	20.8	22.0	22.3	106	107	64-127	0.9	25	
106-99-0	1,3-Butadiene	20.6	20.5	20.9	100	101	66-134	1	25	
74-83-9	Bromomethane	20.6	19.7	19.6	96	95	63-134	1	25	
75-00-3	Chloroethane	20.6	19.6	19.7	95	96	63-127	1	25	
107-02-8	Acrolein	41.6	37.9	38.2	91	92	62-126	1	25	
67-64-1	Acetone	102	89.2	89.3	87	88	58-128	1	25	
75-69-4	Trichlorofluoromethane	20.2	18.8	18.9	93	94	62-126	1	25	
75-35-4	1,1-Dichloroethene	21.0	19.6	19.8	93	94	61-133	1	25	
75-09-2	Methylene Chloride	20.8	18.3	18.4	88	88	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	19.6	19.6	91	91	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	19.8	19.8	95	95	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.4	19.8	19.9	93	93	68-126	0	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.9	19.1	92	93	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	20.6	19.6	19.7	95	96	70-121	1	25	
67-66-3	Chloroform	21.0	19.7	19.8	94	94	68-123	0	25	
107-06-2	1,2-Dichloroethane	21.0	19.3	19.4	92	92	65-128	0	25	
71-55-6	1,1,1-Trichloroethane	20.8	19.2	19.3	92	93	68-125	1	25	
71-43-2	Benzene	20.8	19.3	19.5	93	94	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	18.6	18.7	92	93	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	19.4	19.5	94	95	69-123	1	25	
75-27-4	Bromodichloromethane	20.8	19.3	19.4	93	93	72-128	0	25	
79-01-6	Trichloroethene	20.4	19.6	19.6	96	96	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203495
 ALS Sample ID: P220817-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
123-91-1	1,4-Dioxane	20.6	19.0	19.2	92	93	71-122	1	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	19.8	20.0	95	96	70-128	1	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	19.4	19.7	97	99	75-133	2	25	
79-00-5	1,1,2-Trichloroethane	20.8	19.6	19.8	94	95	73-119	1	25	
108-88-3	Toluene	20.6	17.9	18.0	87	87	66-119	0	25	
124-48-1	Dibromochloromethane	21.0	19.0	19.1	90	91	70-130	1	25	
106-93-4	1,2-Dibromoethane	20.8	19.4	19.6	93	94	74-122	1	25	
127-18-4	Tetrachloroethene	21.2	19.6	19.5	92	92	66-124	0	25	
108-90-7	Chlorobenzene	20.6	20.6	21.1	100	102	70-119	2	25	
100-41-4	Ethylbenzene	20.6	19.9	20.4	97	99	70-124	2	25	
179601-23-1	m,p-Xylenes	41.6	38.8	39.7	93	95	61-134	2	25	
100-42-5	Styrene	20.2	19.0	19.5	94	97	73-127	3	25	
95-47-6	o-Xylene	20.8	20.1	20.6	97	99	67-125	2	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	20.8	21.4	100	103	65-127	3	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	20.8	21.4	100	103	67-130	3	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	20.5	21.0	100	102	66-132	2	25	
541-73-1	1,3-Dichlorobenzene	20.8	20.7	21.3	100	102	65-130	2	25	
106-46-7	1,4-Dichlorobenzene	21.0	19.9	20.5	95	98	60-131	3	25	
95-50-1	1,2-Dichlorobenzene	21.0	20.0	20.5	95	98	63-129	3	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	37.4	38.1	93	94	64-143	1	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	38.9	39.5	93	94	55-142	1	25	
91-20-3	Naphthalene	21.0	18.8	19.1	90	91	57-138	1	25	
87-68-3	Hexachlorobutadiene	21.2	18.4	18.5	87	87	56-138	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Kyle Carrillo
Sample Type: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 08162204.D
Date Analyzed: 8/16/22
Time Analyzed: 06:00

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220816-LCS	08162205.D	06:31
Duplicate Lab Control Sample	P220816-DLCS	08162206.D	07:01
SVMW-23-5-2	P2203495-002	08162220.D	16:47
SVMW-23-10-2	P2203495-003	08162221.D	17:19
SVMW-23-15-2	P2203495-004	08162222.D	17:51
SVMW-20-5-2	P2203495-005	08162224.D	18:54
SVMW-20-10-2	P2203495-006	08162225.D	19:26
SVMW-20-15-2	P2203495-007	08162226.D	19:58
SVMW-22-5-2	P2203495-008	08162227.D	20:31

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Kyle Carrillo
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08172204.D
Date Analyzed: 8/17/22
Time Analyzed: 05:57

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220817-LCS	08172205.D	06:28
Duplicate Lab Control Sample	P220817-DLCS	08172206.D	06:59
BKGD-080822	P2203495-001	08172207.D	08:10

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 08162202.D
 Date Analyzed: 8/16/22
 Time Analyzed: 04:58

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
	AREA	#	RT	#	AREA	#	RT	#			
24 Hour Standard	14446		9.57		66024		11.52		12053		15.86
Upper Limit	20224		9.90		92434		11.85		16874		16.19
Lower Limit	8668		9.24		39614		11.19		7232		15.53

Client Sample ID		IS1 (BCM)	IS2 (DFB)	IS3 (CBZ)
01	Method Blank	14354	9.58	67269 11.53 11881 15.86
02	Lab Control Sample	13605	9.57	62563 11.52 11026 15.86
03	Duplicate Lab Control Sample	13152	9.57	60877 11.52 10433 15.86
04	SVMW-23-5-2	15105	9.57	71056 11.52 14027 15.86
05	SVMW-23-10-2	16570	9.57	78859 11.53 15047 15.86
06	SVMW-23-15-2	16675	9.57	78781 11.52 15206 15.86
07	SVMW-20-5-2	16041	9.57	74920 11.53 14987 15.86
08	SVMW-20-10-2	17348	9.57	80894 11.52 15463 15.86
09	SVMW-20-15-2	17276	9.57	82231 11.52 15969 15.86
10	SVMW-22-5-2	16850	9.57	80586 11.52 15694 15.86
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203495

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 08172202.D
 Date Analyzed: 8/17/22
 Time Analyzed: 04:55

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	13922	9.57	63740	11.52	11803	15.86
Upper Limit	19491	9.90	89236	11.85	16524	16.19
Lower Limit	8353	9.24	38244	11.19	7082	15.53

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	13848	9.58	64413	11.53	11617	15.86
02	Lab Control Sample	13112	9.57	60215	11.52	10893	15.86
03	Duplicate Lab Control Sample	12616	9.57	57944	11.52	10282	15.86
04	BKGD-080822	14182	9.57	65468	11.52	12875	15.86
05							
06							
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09							
10							
11							
12							
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14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
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 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.



LABORATORY REPORT

September 9, 2022

Jessie Moore
HazAir
6565 Americas Pkwy., Ste. 242
Albuquerque, NM 87110

RE: BFF

Dear Jessie:

Enclosed are the results of the samples submitted to our laboratory on August 10, 2022. For your reference, these analyses have been assigned our service request number P2203506.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

ALS | Environmental



By Sue Anderson at 9:16 am, Sep 09, 2022

Sue Anderson
Project Manager



Client: HazAir
 Project: BFF

Service Request No: P2203506

CASE NARRATIVE

The samples were received intact under chain of custody on August 10, 2022 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

Volatile Organic Compound Analysis

The samples were also analyzed in both scan and SIM mode for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

Manual integrations were performed on the following sample(s) and analyte(s). Refer to the raw data for additional information.

Sample Identification(s)	Analyte(s)
P2203506-001,-005,-006,-007,-008,-009,-012	Methyl tert-Butyl Ether
P2203506-001,-006,-007	Bromomethane
P2203506-002	1,3,5-Trimethylbenzene
P2203506-004,-008,-011,-012	Dibromochloromethane

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.3 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413- 19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019 -10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946
<p>Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.</p> <p>Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.</p>		

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

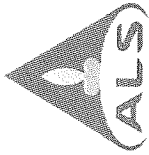
Client: HazAir
 Project ID: BFF

Service Request: P2203506

Date Received: 8/10/2022
 Time Received: 15:21

TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM
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Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	2nd Pi (psig)	2nd Pf (psig)	TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM
SVMW-22-10-2	P2203506-001	Air	8/8/2022	13:36	AC02475	-2.72	3.66	-1.77	1.97	X	X	X
SVMW-22-15-2	P2203506-002	Air	8/8/2022	14:03	AS01752	-2.49	3.65	-1.78	1.89	X	X	X
BKGD-080922	P2203506-003	Air	8/9/2022	14:00	AC01798	-8.89	3.70	-1.72	2.22	X	X	X
DUPE-15-2	P2203506-004	Air	8/9/2022	08:29	SSC00335	-2.76	3.88	-1.89	1.92	X	X	X
SVMW-21-5-2	P2203506-005	Air	8/9/2022	09:17	SC01807	-2.30	3.88	-3.10	1.82	X	X	X
SVMW-21-10-2	P2203506-006	Air	8/9/2022	09:50	AS01154	-2.40	3.70	-1.56	1.97	X	X	X
SVMW-21-15-2	P2203506-007	Air	8/9/2022	10:18	AS01484	-2.36	3.80	-1.90	2.06	X	X	X
SVMW-16-5-2	P2203506-008	Air	8/9/2022	11:14	SSC00563	-2.70	3.78	-1.96	2.03	X	X	X
SVMW-16-10-2	P2203506-009	Air	8/9/2022	11:49	AS00962	-2.52	3.70	-1.71	1.97	X	X	X
SVMW-16-15-2	P2203506-010	Air	8/9/2022	12:31	AS01159	-2.54	3.90	-1.63	2.08	X	X	X
SVMW-17-5-2	P2203506-011	Air	8/9/2022	13:04	AS00678	-2.92	3.76	-1.48	2.14	X	X	X
SVMW-17-10-2	P2203506-012	Air	8/9/2022	13:27	AS01318	-2.72	3.78	-1.55	2.04	X	X	X



Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161

P2203506

ALS Project No.

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

Company Name & Address (Reporting Information)		Project Name		ALS Contact:				
Marz Air Coses ABQ, NM 87110		BFF		M-21-15-2				
Project Manager Benny Taylor		Project Number		Analysis Method				
Phone (805) 702-9032		P.O. # / Billing Information		M-21-15-2				
Fax		Sampler (Print & Sign)		Comments e.g. Actual Preservative or specific instructions				
Email Address for Result Reporting jessie.moore@marzair.com		Canister ID AC, SC, etc.)		Sample Volume				
Client Sample ID		Flow Controller ID (Bar code # - FC #)		Canister End Pressure "Hg/psig				
Laboratory ID Number		Canister Start Pressure "Hg		Canister End Pressure "Hg/psig				
Date Collected		Time Collected		Sample Volume				
SNMW-22-10-2	1	8/2/22	1330	N/A	-27	-0.1	10L	Sec Box C
SNMW-22-15-2	2	8/4/22	1352	N/A	-27	-0.1	10L	Sec Box C
BKGD-080922	3	8/9/22	1405	SFC000SP	-26	-1.9	6L	Sec Box C
DUPE-15-2	4	8/9/22	1405	N/A	-26	-0.2	6L	Sec Box C
SNMW-21-5-2	5	8/9/22	1417	N/A	-27	-0.1	10L	Sec Box D
SNMW-21-10-2	6	8/9/22	1437	N/A	-27	-0.1	10L	Sec Box D
SNMW-21-15-2	7	8/9/22	1450	N/A	-27	-0.1	10L	Sec Box D
SNMW-10-5-2	8	8/9/22	1450	N/A	-27	-0.1	10L	Sec Box D
SNMW-10-10-2	9	8/9/22	1459	N/A	-27	-0.1	10L	Sec Box E
SNMW-10-15-2	10	8/9/22	1459	N/A	-27	-0.1	10L	Sec Box E
SNMW-17-5-2	11	8/9/22	1509	N/A	-27	-0.1	10L	Sec Box E
SNMW-17-10-2	12	8/9/22	1517	N/A	-27	-0.1	10L	Sec Box E

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____
 Tier II (Results + OC Summaries) _____
 Tier III (Results + OC & Calibration Summaries) _____
 Tier IV (Data Validation Package) 10% Surcharge _____

Relinquished by: (Signature) *Jessie Moore* Date: 8/5/22 Time: 2:35 pm
 Relinquished by: (Signature) _____ Date: _____ Time: _____

Received by: (Signature) _____ Date: 8-10 Time: 15:21
 Received by: (Signature) _____ Date: _____ Time: _____

Units: _____

Chain of Custody Seal: (Circle)
 INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP) _____
 Cooler / Blank _____
 Temperature _____ °C

**ALS Environmental
Sample Acceptance Check Form**

Client: HazAir Work order: P2203506
 Project: BFF
 Sample(s) received on: 8/10/22 Date opened: 8/10/22 by: KYLE.WOODIN

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2203506-001.01	6.0 L Ambient Can					
P2203506-002.01	6.0 L Silonite Can					
P2203506-003.01	6.0 L Ambient Can					
P2203506-004.01	6.0 L Silonite Can					
P2203506-005.01	6.0 L Source Can					
P2203506-006.01	6.0 L Silonite Can					
P2203506-007.01	6.0 L Silonite Can					
P2203506-008.01	6.0 L Silonite Can					
P2203506-009.01	6.0 L Silonite Can					
P2203506-010.01	6.0 L Silonite Can					
P2203506-011.01	6.0 L Silonite Can					
P2203506-012.01	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)
 Test Notes:

Date(s) Collected: 8/8 - 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/15/22

Client Sample ID	ALS Sample ID	Container Dilution Factor	Injection Volume ml(s)	Result mg/m ³	LOQ mg/m ³	LOD mg/m ³	MDL mg/m ³	Data Qualifier
SVMW-22-10-2	P2203506-001	1.53	1.0	5.2	28	4.4	1.4	J
SVMW-22-15-2	P2203506-002	1.50	1.0	4.4	27	4.4	1.4	J
BKGD-080922	P2203506-003	3.17	1.0	12	57	9.2	2.9	J
DUPE-15-2	P2203506-004	1.56	1.0	7.5	28	4.5	1.4	J
SVMW-21-5-2	P2203506-005	1.50	1.0	5.5	27	4.4	1.4	J
SVMW-21-10-2	P2203506-006	1.50	1.0	5.8	27	4.4	1.4	J
SVMW-21-15-2	P2203506-007	1.50	1.0	5.3	27	4.4	1.4	J
SVMW-16-5-2	P2203506-008	1.54	1.0	5.6	28	4.5	1.4	J
SVMW-16-10-2	P2203506-009	1.51	1.0	5.9	27	4.4	1.4	J
SVMW-16-15-2	P2203506-010	1.53	1.0	6.0	28	4.4	1.4	J
SVMW-17-5-2	P2203506-011	1.57	1.0	5.4	28	4.6	1.4	J
SVMW-17-10-2	P2203506-012	1.54	1.0	6.2	28	4.5	1.4	J
Method Blank	P220815-MB	1.00	1.0	2.9	18	2.9	0.91	U

Parts Per Million results are based on a Molecular Weight of 86.18.

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220815-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/15/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result		ALS		RPD	RPD	Data
	LCS / DLCS	LCS	DLCS	% Recovery		Acceptance			
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits		Limit	Qualifier
TPH as Gasoline	7,190	7,440	6,710	103	93	89-124	10	14	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 08152206.D
Date Analyzed: 8/15/22
Time Analyzed: 11:07

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220815-LCS	08152204.D	10:25
Duplicate Lab Control Sample	P220815-DLCS	08152205.D	10:46
SVMW-22-10-2	P2203506-001	08152207.D	11:27
SVMW-22-15-2	P2203506-002	08152208.D	11:43
BKGD-080922	P2203506-003	08152209.D	12:13
DUPE-15-2	P2203506-004	08152210.D	12:30
SVMW-21-5-2	P2203506-005	08152211.D	12:47
SVMW-21-10-2	P2203506-006	08152212.D	13:09
SVMW-21-15-2	P2203506-007	08152213.D	13:25
SVMW-16-5-2	P2203506-008	08152214.D	13:46
SVMW-16-10-2	P2203506-009	08152216.D	14:26
SVMW-16-15-2	P2203506-010	08152217.D	14:43
SVMW-17-5-2	P2203506-011	08152218.D	15:00
SVMW-17-10-2	P2203506-012	08152219.D	15:17

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02475

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.72 Final Pressure (psig): 3.66
 Initial Pressure 2 (psig): -1.77 Final Pressure 2 (psig): 1.97

Container Dilution Factor: 1.98

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.61	1.0	0.61	0.22	U
110-82-7	Cyclohexane	0.65	2.2	0.65	0.30	U
142-82-5	n-Heptane	0.61	1.0	0.61	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01752

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.49 Final Pressure (psig): 3.65
 Initial Pressure 2 (psig): -1.78 Final Pressure 2 (psig): 1.89

Container Dilution Factor: 1.93

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.60	1.0	0.60	0.21	U
110-82-7	Cyclohexane	0.64	2.1	0.64	0.29	U
142-82-5	n-Heptane	0.60	1.0	0.60	0.16	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: BKGD-080922
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01798

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -8.89 Final Pressure (psig): 3.70
 Initial Pressure 2 (psig): -1.72 Final Pressure 2 (psig): 2.22

Container Dilution Factor: 4.13

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.69	2.2	1.3	0.45	J
110-82-7	Cyclohexane	1.4	4.5	1.4	0.62	U
142-82-5	n-Heptane	0.97	2.2	1.3	0.35	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00335

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.76 Final Pressure (psig): 3.88
 Initial Pressure 2 (psig): -1.89 Final Pressure 2 (psig): 1.92

Container Dilution Factor: 2.02

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.23	1.1	0.63	0.22	J
110-82-7	Cyclohexane	0.38	2.2	0.67	0.30	J
142-82-5	n-Heptane	0.63	1.1	0.63	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC01807

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.30 Final Pressure (psig): 3.88
 Initial Pressure 2 (psig): -3.10 Final Pressure 2 (psig): 1.82

Container Dilution Factor: 2.13

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.66	1.1	0.66	0.23	U
110-82-7	Cyclohexane	0.70	2.3	0.70	0.32	U
142-82-5	n-Heptane	0.66	1.1	0.66	0.18	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-21-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-006

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01154

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.40 Final Pressure (psig): 3.70
 Initial Pressure 2 (psig): -1.56 Final Pressure 2 (psig): 1.97

Container Dilution Factor: 1.90

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.59	1.0	0.59	0.21	U
110-82-7	Cyclohexane	0.63	2.1	0.63	0.29	U
142-82-5	n-Heptane	0.59	1.0	0.59	0.16	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-21-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01484

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.36 Final Pressure (psig): 3.80
 Initial Pressure 2 (psig): -1.90 Final Pressure 2 (psig): 2.06

Container Dilution Factor: 1.96

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.61	1.0	0.61	0.22	U
110-82-7	Cyclohexane	0.65	2.2	0.65	0.29	U
142-82-5	n-Heptane	0.61	1.0	0.61	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-16-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-008

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00563

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/28/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.70 Final Pressure (psig): 3.78
 Initial Pressure 2 (psig): -1.96 Final Pressure 2 (psig): 2.03

Container Dilution Factor: 2.02

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.63	1.1	0.63	0.22	U
110-82-7	Cyclohexane	0.67	2.2	0.67	0.30	U
142-82-5	n-Heptane	0.63	1.1	0.63	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-16-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-009

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00962

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.52 Final Pressure (psig): 3.70
 Initial Pressure 2 (psig): -1.71 Final Pressure 2 (psig): 1.97

Container Dilution Factor: 1.94

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.60	1.0	0.60	0.21	U
110-82-7	Cyclohexane	0.64	2.1	0.64	0.29	U
142-82-5	n-Heptane	0.60	1.0	0.60	0.16	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-010

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01159

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.54 Final Pressure (psig): 3.90
 Initial Pressure 2 (psig): -1.63 Final Pressure 2 (psig): 2.08

Container Dilution Factor: 1.96

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.61	1.0	0.61	0.22	U
110-82-7	Cyclohexane	0.65	2.2	0.65	0.29	U
142-82-5	n-Heptane	0.61	1.0	0.61	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-17-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-011

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00678

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.92 Final Pressure (psig): 3.76
 Initial Pressure 2 (psig): -1.48 Final Pressure 2 (psig): 2.14

Container Dilution Factor: 2.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.62	1.1	0.62	0.22	U
110-82-7	Cyclohexane	0.66	2.2	0.66	0.30	U
142-82-5	n-Heptane	0.62	1.1	0.62	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: SVMW-17-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-012

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01318

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.72 Final Pressure (psig): 3.78
 Initial Pressure 2 (psig): -1.55 Final Pressure 2 (psig): 2.04

Container Dilution Factor: 1.96

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.61	1.0	0.61	0.22	U
110-82-7	Cyclohexane	0.65	2.2	0.65	0.29	U
142-82-5	n-Heptane	0.61	1.0	0.61	0.17	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203506
ALS Sample ID: P220826-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/26/22
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220828-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/28/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)
 Test Notes:

Date(s) Collected: 8/8 - 8/9/22
 Date(s) Received: 8/10/22
 Date(s) Analyzed: 8/26 - 8/28/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P220826-MB	99	106	101	70-130	
Method Blank	P220828-MB	99	103	100	70-130	
Lab Control Sample	P220826-LCS	102	98	94	70-130	
Lab Control Sample	P220828-LCS	101	96	97	70-130	
Duplicate Lab Control Sample	P220826-DLCS	103	97	93	70-130	
Duplicate Lab Control Sample	P220828-DLCS	100	95	98	70-130	
SVMW-22-10-2	P2203506-001	97	103	102	70-130	
SVMW-22-15-2	P2203506-002	100	103	99	70-130	
BKGD-080922	P2203506-003	98	102	97	70-130	
DUPE-15-2	P2203506-004	98	102	97	70-130	
SVMW-21-5-2	P2203506-005	100	101	96	70-130	
SVMW-21-10-2	P2203506-006	101	102	94	70-130	
SVMW-21-15-2	P2203506-007	102	101	93	70-130	
SVMW-16-5-2	P2203506-008	99	102	97	70-130	
SVMW-16-10-2	P2203506-009	101	100	93	70-130	
SVMW-16-15-2	P2203506-010	100	100	95	70-130	
SVMW-17-5-2	P2203506-011	101	100	93	70-130	
SVMW-17-10-2	P2203506-012	101	97	95	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

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Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220826-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	212	239	239	113	113	63-120	0	25	
110-82-7	Cyclohexane	422	424	415	100	98	70-117	2	25	
142-82-5	n-Heptane	212	212	210	100	99	69-123	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

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LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

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Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220828-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/28/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	212	240	231	113	109	63-120	4	25	
110-82-7	Cyclohexane	422	418	406	99	96	70-117	3	25	
142-82-5	n-Heptane	212	209	203	99	96	69-123	3	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 08262203.D
Date Analyzed: 8/26/22
Time Analyzed: 12:50

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
SVMW-22-10-2	P2203506-001	08262204.D	13:24
SVMW-22-15-2	P2203506-002	08262205.D	13:58
BKGD-080922	P2203506-003	08262206.D	14:32
DUPE-15-2	P2203506-004	08262207.D	15:06
Lab Control Sample	P220826-LCS	08262208.D	15:41
SVMW-21-5-2	P2203506-005	08262209.D	16:26
SVMW-21-10-2	P2203506-006	08262210.D	17:01
SVMW-21-15-2	P2203506-007	08262211.D	17:35
SVMW-16-10-2	P2203506-009	08262213.D	18:43
Duplicate Lab Control Sample	P220826-DLCS	08262214.D	19:16
SVMW-16-15-2	P2203506-010	08262215.D	19:50
SVMW-17-5-2	P2203506-011	08262216.D	20:24
SVMW-17-10-2	P2203506-012	08262217.D	20:59

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08282203.D
Date Analyzed: 8/28/22
Time Analyzed: 05:28

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220828-LCS	08282204.D	06:02
SVMW-16-5-2	P2203506-008	08282205.D	08:36
Duplicate Lab Control Sample	P220828-DLCS	08282211.D	13:11

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 08262201.D
 Date Analyzed: 8/26/22
 Time Analyzed: 11:13

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	264989	11.32	1173541	13.43	259816	17.73
Upper Limit	370985	11.65	1642957	13.76	363742	18.06
Lower Limit	158993	10.99	704125	13.10	155890	17.40

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	211090	11.30	942239	13.42	199086	17.73
02	Lab Control Sample	229960	11.32	1005614	13.43	234282	17.73
03	SVMW-22-10-2	212529	11.30	1011983	13.42	202558	17.73
04	SVMW-22-15-2	214899	11.30	979178	13.43	211049	17.73
05	BKGD-080922	220582	11.30	963442	13.42	211390	17.73
06	DUPE-15-2	216827	11.30	960785	13.42	209670	17.73
07	SVMW-21-5-2	218258	11.30	969321	13.42	217268	17.73
08	SVMW-21-10-2	208620	11.30	947976	13.42	206653	17.73
09	SVMW-21-15-2	203177	11.30	917262	13.42	203655	17.73
10	SVMW-16-10-2	189929	11.30	850143	13.42	192491	17.73
11	Duplicate Lab Control Sample	212377	11.31	943213	13.43	225042	17.73
12	SVMW-16-15-2	201266	11.30	899251	13.42	202631	17.73
13	SVMW-17-5-2	207490	11.30	929026	13.42	207791	17.73
14	SVMW-17-10-2	210910	11.30	937186	13.42	218247	17.73
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area

AREA LOWER LIMIT = 60% of internal standard area

RT UPPER LIMIT = 0.33 minutes of internal standard RT

RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
 Analyst: Wida Ang
 Sampling Media: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 08282201.D
 Date Analyzed: 8/28/22
 Time Analyzed: 04:19

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	186438	11.31	830781	13.43	204181	17.73
Upper Limit	261013	11.64	1163093	13.76	285853	18.06
Lower Limit	111863	10.98	498469	13.10	122509	17.40

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
01	Method Blank	171039	11.29	755359	13.42	166308	17.73
02	Lab Control Sample	181257	11.31	797256	13.43	195070	17.73
03	SVMW-16-5-2	181045	11.30	816487	13.42	178869	17.73
04	Duplicate Lab Control Sample	202214	11.32	881126	13.43	215316	17.73
05							
06							
07							
08							
09							
10							
11							
12							
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14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane

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RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.

I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: SVMW-22-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02475

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.72 Final Pressure (psig): 3.66

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.077	0.032	0.013	
74-87-3	Chloromethane	0.042	0.077	0.064	0.040	J
75-01-4	Vinyl Chloride	0.037	0.038	0.037	0.018	U
106-99-0	1,3-Butadiene	0.064	0.077	0.064	0.012	U
74-83-9	Bromomethane	0.079	0.038	0.034	0.010	B
75-00-3	Chloroethane	0.019	0.038	0.034	0.012	J
107-02-8	Acrolein	1.5	0.31	0.15	0.054	
67-64-1	Acetone	11	3.8	0.81	0.35	
75-69-4	Trichlorofluoromethane	1.2	0.077	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.034	0.038	0.034	0.013	U
75-09-2	Methylene Chloride	0.096	0.15	0.064	0.012	J
76-13-1	Trichlorotrifluoroethane	0.37	0.038	0.034	0.012	
156-60-5	trans-1,2-Dichloroethene	0.022	0.038	0.034	0.017	J
75-34-3	1,1-Dichloroethane	0.045	0.038	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.36	0.038	0.034	0.018	
156-59-2	cis-1,2-Dichloroethene	0.019	0.038	0.032	0.011	J
67-66-3	Chloroform	0.28	0.15	0.066	0.012	
107-06-2	1,2-Dichloroethane	0.038	0.038	0.034	0.013	J
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.014	U
71-43-2	Benzene	0.14	0.11	0.064	0.023	
56-23-5	Carbon Tetrachloride	0.23	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.019	0.038	0.034	0.0093	J
75-27-4	Bromodichloromethane	0.030	0.038	0.034	0.0089	J
79-01-6	Trichloroethene	0.029	0.038	0.032	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: SVMW-22-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02475

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.720 Final Pressure (psig): 3.660

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.034	0.15	0.034	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.022	0.077	0.032	0.011	J
10061-02-6	trans-1,3-Dichloropropene	0.057	0.077	0.032	0.0073	J
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0090	U
108-88-3	Toluene	0.34	0.15	0.066	0.018	B
124-48-1	Dibromochloromethane	0.011	0.038	0.032	0.0098	J
106-93-4	1,2-Dibromoethane	0.033	0.038	0.032	0.010	J
127-18-4	Tetrachloroethene	0.16	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.22	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.36	0.15	0.066	0.037	
100-42-5	Styrene	0.13	0.15	0.064	0.018	J
95-47-6	o-Xylene	0.23	0.15	0.032	0.020	
79-34-5	1,1,1,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.051	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.38	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.12	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.058	0.038	0.032	0.031	
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.10	0.077	0.066	0.031	
91-20-3	Naphthalene	0.55	0.15	0.063	0.034	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01752

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.49 Final Pressure (psig): 3.65

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.5	0.075	0.032	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.062	0.038	0.033	0.010	B
75-00-3	Chloroethane	0.027	0.038	0.033	0.012	J
107-02-8	Acrolein	1.8	0.30	0.15	0.053	
67-64-1	Acetone	16	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	1.4	0.075	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.026	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.41	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.095	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.71	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	0.36	0.15	0.065	0.012	
107-06-2	1,2-Dichloroethane	0.098	0.038	0.033	0.012	
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.014	U
71-43-2	Benzene	0.36	0.11	0.063	0.023	
56-23-5	Carbon Tetrachloride	0.21	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.020	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.030	0.038	0.033	0.0087	J
79-01-6	Trichloroethene	0.012	0.038	0.032	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-22-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01752

Date Collected: 8/8/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.490 Final Pressure (psig): 3.650

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.42	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.032	0.038	0.032	0.0096	U
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.22	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.23	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.34	0.15	0.065	0.036	
100-42-5	Styrene	0.076	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.21	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.042	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.40	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.13	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.049	0.075	0.065	0.030	J
91-20-3	Naphthalene	0.42	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: BKGD-080922
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01798

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -8.89 Final Pressure (psig): 3.70

Container Dilution Factor: 3.17

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.16	0.067	0.027	
74-87-3	Chloromethane	1.7	0.16	0.13	0.082	
75-01-4	Vinyl Chloride	0.076	0.079	0.076	0.038	U
106-99-0	1,3-Butadiene	0.13	0.16	0.13	0.025	U
74-83-9	Bromomethane	0.093	0.079	0.070	0.021	B
75-00-3	Chloroethane	0.087	0.079	0.070	0.025	
107-02-8	Acrolein	0.75	0.63	0.32	0.11	
67-64-1	Acetone	64	7.9	1.7	0.73	
75-69-4	Trichlorofluoromethane	0.98	0.16	0.067	0.026	
75-35-4	1,1-Dichloroethene	0.070	0.079	0.070	0.028	U
75-09-2	Methylene Chloride	0.30	0.32	0.13	0.025	J
76-13-1	Trichlorotrifluoroethane	0.42	0.079	0.070	0.026	
156-60-5	trans-1,2-Dichloroethene	0.048	0.079	0.070	0.035	J
75-34-3	1,1-Dichloroethane	0.38	0.079	0.070	0.026	
1634-04-4	Methyl tert-Butyl Ether	3.0	0.079	0.070	0.038	
156-59-2	cis-1,2-Dichloroethene	0.067	0.079	0.067	0.023	U
67-66-3	Chloroform	0.068	0.32	0.14	0.025	J
107-06-2	1,2-Dichloroethane	1.9	0.079	0.070	0.026	
71-55-6	1,1,1-Trichloroethane	0.067	0.079	0.067	0.029	U
71-43-2	Benzene	0.60	0.24	0.13	0.048	
56-23-5	Carbon Tetrachloride	0.067	0.079	0.067	0.023	U
78-87-5	1,2-Dichloropropane	0.034	0.079	0.070	0.019	J
75-27-4	Bromodichloromethane	0.070	0.079	0.070	0.018	U
79-01-6	Trichloroethene	0.036	0.079	0.067	0.024	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: BKGD-080922
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC01798

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -8.890 Final Pressure (psig): 3.700

Container Dilution Factor: 3.17

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.070	0.32	0.070	0.028	U
10061-01-5	cis-1,3-Dichloropropene	0.067	0.16	0.067	0.023	U
10061-02-6	trans-1,3-Dichloropropene	0.067	0.16	0.067	0.015	U
79-00-5	1,1,2-Trichloroethane	0.067	0.32	0.067	0.019	U
108-88-3	Toluene	1.7	0.32	0.14	0.038	B
124-48-1	Dibromochloromethane	0.067	0.079	0.067	0.020	U
106-93-4	1,2-Dibromoethane	0.067	0.079	0.067	0.021	U
127-18-4	Tetrachloroethene	0.31	0.079	0.067	0.027	
108-90-7	Chlorobenzene	0.067	0.32	0.067	0.031	U
100-41-4	Ethylbenzene	0.78	0.32	0.067	0.038	
179601-23-1	m,p-Xylenes	2.0	0.32	0.14	0.076	
100-42-5	Styrene	1.7	0.32	0.13	0.038	
95-47-6	o-Xylene	0.71	0.32	0.067	0.041	
79-34-5	1,1,2,2-Tetrachloroethane	0.067	0.079	0.067	0.028	U
108-67-8	1,3,5-Trimethylbenzene	0.16	0.32	0.067	0.044	J
95-63-6	1,2,4-Trimethylbenzene	0.73	0.32	0.067	0.051	
541-73-1	1,3-Dichlorobenzene	0.067	0.079	0.067	0.054	U
106-46-7	1,4-Dichlorobenzene	0.067	0.079	0.067	0.063	U
95-50-1	1,2-Dichlorobenzene	0.067	0.079	0.067	0.057	U
96-12-8	1,2-Dibromo-3-chloropropane	0.067	0.32	0.067	0.044	U
120-82-1	1,2,4-Trichlorobenzene	0.14	0.16	0.14	0.063	U
91-20-3	Naphthalene	0.50	0.32	0.13	0.070	
87-68-3	Hexachlorobutadiene	0.067	0.32	0.067	0.041	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00335

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.76 Final Pressure (psig): 3.88

Container Dilution Factor: 1.56

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	5.2	0.078	0.033	0.013	
74-87-3	Chloromethane	0.066	0.078	0.066	0.041	U
75-01-4	Vinyl Chloride	0.037	0.039	0.037	0.019	U
106-99-0	1,3-Butadiene	0.066	0.078	0.066	0.012	U
74-83-9	Bromomethane	0.034	0.039	0.034	0.010	U
75-00-3	Chloroethane	0.027	0.039	0.034	0.012	J
107-02-8	Acrolein	0.40	0.31	0.16	0.055	
67-64-1	Acetone	18	3.9	0.83	0.36	
75-69-4	Trichlorofluoromethane	4.6	0.078	0.033	0.013	
75-35-4	1,1-Dichloroethene	0.034	0.039	0.034	0.014	U
75-09-2	Methylene Chloride	0.33	0.16	0.066	0.012	
76-13-1	Trichlorotrifluoroethane	0.49	0.039	0.034	0.013	
156-60-5	trans-1,2-Dichloroethene	0.034	0.039	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.12	0.039	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.95	0.039	0.034	0.019	
156-59-2	cis-1,2-Dichloroethene	0.015	0.039	0.033	0.011	J
67-66-3	Chloroform	0.41	0.16	0.067	0.012	
107-06-2	1,2-Dichloroethane	0.082	0.039	0.034	0.013	
71-55-6	1,1,1-Trichloroethane	0.033	0.039	0.033	0.014	U
71-43-2	Benzene	0.27	0.12	0.066	0.023	
56-23-5	Carbon Tetrachloride	0.22	0.039	0.033	0.011	
78-87-5	1,2-Dichloropropane	0.24	0.039	0.034	0.0095	
75-27-4	Bromodichloromethane	0.035	0.039	0.034	0.0090	J
79-01-6	Trichloroethene	0.030	0.039	0.033	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00335

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.760 Final Pressure (psig): 3.880

Container Dilution Factor: 1.56

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.11	0.16	0.034	0.014	J
10061-01-5	cis-1,3-Dichloropropene	0.033	0.078	0.033	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.033	0.078	0.033	0.0075	U
79-00-5	1,1,2-Trichloroethane	0.033	0.16	0.033	0.0092	U
108-88-3	Toluene	2.4	0.16	0.067	0.019	B
124-48-1	Dibromochloromethane	0.044	0.039	0.033	0.010	
106-93-4	1,2-Dibromoethane	0.020	0.039	0.033	0.010	J
127-18-4	Tetrachloroethene	0.57	0.039	0.033	0.013	
108-90-7	Chlorobenzene	0.035	0.16	0.033	0.015	J
100-41-4	Ethylbenzene	0.52	0.16	0.033	0.019	
179601-23-1	m,p-Xylenes	0.91	0.16	0.067	0.037	
100-42-5	Styrene	0.25	0.16	0.066	0.019	
95-47-6	o-Xylene	0.56	0.16	0.033	0.020	
79-34-5	1,1,1,2-Tetrachloroethane	0.033	0.039	0.033	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.11	0.16	0.033	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.31	0.16	0.033	0.025	
541-73-1	1,3-Dichlorobenzene	0.16	0.039	0.033	0.027	
106-46-7	1,4-Dichlorobenzene	0.058	0.039	0.033	0.031	
95-50-1	1,2-Dichlorobenzene	0.033	0.039	0.033	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.033	0.16	0.033	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.055	0.078	0.067	0.031	J
91-20-3	Naphthalene	0.45	0.16	0.064	0.034	
87-68-3	Hexachlorobutadiene	0.033	0.16	0.033	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC01807

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.30 Final Pressure (psig): 3.88

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.6	0.075	0.032	0.013	
74-87-3	Chloromethane	0.041	0.075	0.063	0.039	J
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.085	0.038	0.033	0.010	B
75-00-3	Chloroethane	0.038	0.038	0.033	0.012	
107-02-8	Acrolein	0.64	0.30	0.15	0.053	
67-64-1	Acetone	7.4	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	1.3	0.075	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.038	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.41	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.062	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.45	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	1.6	0.15	0.065	0.012	
107-06-2	1,2-Dichloroethane	0.028	0.038	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.014	0.038	0.032	0.014	J
71-43-2	Benzene	0.15	0.11	0.063	0.023	
56-23-5	Carbon Tetrachloride	0.16	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.019	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.13	0.038	0.033	0.0087	
79-01-6	Trichloroethene	0.20	0.038	0.032	0.012	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC01807

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.300 Final Pressure (psig): 3.880

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.054	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.25	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.010	0.038	0.032	0.0096	J
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	2.7	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.22	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.35	0.15	0.065	0.036	
100-42-5	Styrene	0.081	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.23	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.056	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.37	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.091	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.075	0.065	0.030	U
91-20-3	Naphthalene	0.62	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01154

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.40 Final Pressure (psig): 3.70

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.6	0.075	0.032	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.083	0.038	0.033	0.010	B
75-00-3	Chloroethane	0.021	0.038	0.033	0.012	J
107-02-8	Acrolein	0.71	0.30	0.15	0.053	
67-64-1	Acetone	9.5	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	1.3	0.075	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.049	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.42	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.061	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.43	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	1.7	0.15	0.065	0.012	
107-06-2	1,2-Dichloroethane	0.013	0.038	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.018	0.038	0.032	0.014	J
71-43-2	Benzene	0.25	0.11	0.063	0.023	
56-23-5	Carbon Tetrachloride	0.15	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.034	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.16	0.038	0.033	0.0087	
79-01-6	Trichloroethene	0.089	0.038	0.032	0.012	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01154

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.400 Final Pressure (psig): 3.700

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.13	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.52	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.012	0.038	0.032	0.0096	J
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	2.4	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.23	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.35	0.15	0.065	0.036	
100-42-5	Styrene	0.078	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.22	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.061	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.37	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.094	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.075	0.065	0.030	U
91-20-3	Naphthalene	0.17	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01484

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.36 Final Pressure (psig): 3.80

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.7	0.075	0.032	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.12	0.038	0.033	0.010	B
75-00-3	Chloroethane	0.033	0.038	0.033	0.012	U
107-02-8	Acrolein	0.36	0.30	0.15	0.053	
67-64-1	Acetone	7.4	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	1.4	0.075	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.036	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.43	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.050	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.40	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	1.6	0.15	0.065	0.012	
107-06-2	1,2-Dichloroethane	0.023	0.038	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.017	0.038	0.032	0.014	J
71-43-2	Benzene	0.15	0.11	0.063	0.023	
56-23-5	Carbon Tetrachloride	0.13	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.036	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.22	0.038	0.033	0.0087	
79-01-6	Trichloroethene	0.041	0.038	0.032	0.012	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-21-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01484

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.360 Final Pressure (psig): 3.800

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.44	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.032	0.038	0.032	0.0096	U
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	1.7	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.20	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.35	0.15	0.065	0.036	
100-42-5	Styrene	0.072	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.22	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.054	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.38	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.088	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.075	0.065	0.030	U
91-20-3	Naphthalene	0.44	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00563

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.70 Final Pressure (psig): 3.78

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.077	0.032	0.013	
74-87-3	Chloromethane	0.065	0.077	0.065	0.040	U
75-01-4	Vinyl Chloride	0.037	0.039	0.037	0.018	U
106-99-0	1,3-Butadiene	0.065	0.077	0.065	0.012	U
74-83-9	Bromomethane	0.087	0.039	0.034	0.010	B
75-00-3	Chloroethane	0.034	0.039	0.034	0.012	U
107-02-8	Acrolein	1.3	0.31	0.15	0.054	
67-64-1	Acetone	13	3.9	0.82	0.35	
75-69-4	Trichlorofluoromethane	1.7	0.077	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.034	0.039	0.034	0.014	U
75-09-2	Methylene Chloride	0.11	0.15	0.065	0.012	J
76-13-1	Trichlorotrifluoroethane	16	0.039	0.034	0.012	
156-60-5	trans-1,2-Dichloroethene	0.034	0.039	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.077	0.039	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.59	0.039	0.034	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.039	0.032	0.011	U
67-66-3	Chloroform	0.27	0.15	0.066	0.012	
107-06-2	1,2-Dichloroethane	0.053	0.039	0.034	0.013	
71-55-6	1,1,1-Trichloroethane	0.032	0.039	0.032	0.014	U
71-43-2	Benzene	0.19	0.12	0.065	0.023	
56-23-5	Carbon Tetrachloride	4.2	0.039	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.022	0.039	0.034	0.0094	J
75-27-4	Bromodichloromethane	0.081	0.039	0.034	0.0089	
79-01-6	Trichloroethene	0.032	0.039	0.032	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00563

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.700 Final Pressure (psig): 3.780

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.034	0.15	0.034	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.077	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.077	0.032	0.0074	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0091	U
108-88-3	Toluene	0.74	0.15	0.066	0.018	B
124-48-1	Dibromochloromethane	0.014	0.039	0.032	0.0099	J
106-93-4	1,2-Dibromoethane	0.032	0.039	0.032	0.010	U
127-18-4	Tetrachloroethene	0.21	0.039	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.22	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.38	0.15	0.066	0.037	
100-42-5	Styrene	0.098	0.15	0.065	0.018	J
95-47-6	o-Xylene	0.22	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.039	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.073	0.15	0.032	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.39	0.15	0.032	0.025	
541-73-1	1,3-Dichlorobenzene	0.093	0.039	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.039	0.032	0.031	U
95-50-1	1,2-Dichlorobenzene	0.032	0.039	0.032	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.037	0.077	0.066	0.031	J
91-20-3	Naphthalene	0.51	0.15	0.063	0.034	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00962

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.52 Final Pressure (psig): 3.70

Container Dilution Factor: 1.51

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.076	0.032	0.013	
74-87-3	Chloromethane	0.063	0.076	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.076	0.063	0.012	U
74-83-9	Bromomethane	0.095	0.038	0.033	0.010	B
75-00-3	Chloroethane	0.018	0.038	0.033	0.012	J
107-02-8	Acrolein	1.2	0.30	0.15	0.053	
67-64-1	Acetone	11	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	1.9	0.076	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.052	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	28	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.068	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.55	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	1.1	0.15	0.065	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.038	0.033	0.013	U
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.014	U
71-43-2	Benzene	0.098	0.11	0.063	0.023	J
56-23-5	Carbon Tetrachloride	7.2	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.026	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.38	0.038	0.033	0.0088	
79-01-6	Trichloroethene	0.032	0.038	0.032	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00962

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.520 Final Pressure (psig): 3.700

Container Dilution Factor: 1.51

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.076	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.076	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.34	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.073	0.038	0.032	0.0097	
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.26	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.22	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.30	0.15	0.065	0.036	
100-42-5	Styrene	0.071	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.22	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.052	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.38	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.14	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.038	0.076	0.065	0.030	J
91-20-3	Naphthalene	0.32	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-010

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01159

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.54 Final Pressure (psig): 3.90

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.077	0.032	0.013	
74-87-3	Chloromethane	0.064	0.077	0.064	0.040	U
75-01-4	Vinyl Chloride	0.021	0.038	0.037	0.018	J
106-99-0	1,3-Butadiene	0.064	0.077	0.064	0.012	U
74-83-9	Bromomethane	0.21	0.038	0.034	0.010	B
75-00-3	Chloroethane	0.027	0.038	0.034	0.012	J
107-02-8	Acrolein	1.1	0.31	0.15	0.054	
67-64-1	Acetone	15	3.8	0.81	0.35	
75-69-4	Trichlorofluoromethane	2.2	0.077	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.034	0.038	0.034	0.013	U
75-09-2	Methylene Chloride	0.19	0.15	0.064	0.012	
76-13-1	Trichlorotrifluoroethane	41	0.038	0.034	0.012	
156-60-5	trans-1,2-Dichloroethene	0.034	0.038	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.10	0.038	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.86	0.038	0.034	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	2.3	0.15	0.066	0.012	
107-06-2	1,2-Dichloroethane	0.029	0.038	0.034	0.013	J
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.014	U
71-43-2	Benzene	0.29	0.11	0.064	0.023	
56-23-5	Carbon Tetrachloride	11	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.029	0.038	0.034	0.0093	J
75-27-4	Bromodichloromethane	0.71	0.038	0.034	0.0089	
79-01-6	Trichloroethene	0.016	0.038	0.032	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-16-15-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-010

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01159

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.540 Final Pressure (psig): 3.900

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.034	0.15	0.034	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.077	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.077	0.032	0.0073	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0090	U
108-88-3	Toluene	0.98	0.15	0.066	0.018	B
124-48-1	Dibromochloromethane	0.18	0.038	0.032	0.0098	
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.32	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.29	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.47	0.15	0.066	0.037	
100-42-5	Styrene	0.14	0.15	0.064	0.018	J
95-47-6	o-Xylene	0.29	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.097	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.35	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.15	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.031	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.038	0.077	0.066	0.031	J
91-20-3	Naphthalene	0.47	0.15	0.063	0.034	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: SVMW-17-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-011

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00678

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.92 Final Pressure (psig): 3.76

Container Dilution Factor: 1.57

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.079	0.033	0.013	
74-87-3	Chloromethane	0.066	0.079	0.066	0.041	U
75-01-4	Vinyl Chloride	0.038	0.039	0.038	0.019	U
106-99-0	1,3-Butadiene	0.066	0.079	0.066	0.012	U
74-83-9	Bromomethane	0.12	0.039	0.035	0.011	B
75-00-3	Chloroethane	0.025	0.039	0.035	0.012	J
107-02-8	Acrolein	1.4	0.31	0.16	0.055	
67-64-1	Acetone	14	3.9	0.83	0.36	
75-69-4	Trichlorofluoromethane	1.1	0.079	0.033	0.013	
75-35-4	1,1-Dichloroethene	0.035	0.039	0.035	0.014	U
75-09-2	Methylene Chloride	0.051	0.16	0.066	0.012	J
76-13-1	Trichlorotrifluoroethane	0.49	0.039	0.035	0.013	
156-60-5	trans-1,2-Dichloroethene	0.035	0.039	0.035	0.017	U
75-34-3	1,1-Dichloroethane	0.096	0.039	0.035	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.72	0.039	0.035	0.019	
156-59-2	cis-1,2-Dichloroethene	0.033	0.039	0.033	0.011	U
67-66-3	Chloroform	0.44	0.16	0.068	0.013	
107-06-2	1,2-Dichloroethane	0.027	0.039	0.035	0.013	J
71-55-6	1,1,1-Trichloroethane	0.016	0.039	0.033	0.014	J
71-43-2	Benzene	0.10	0.12	0.066	0.024	J
56-23-5	Carbon Tetrachloride	0.32	0.039	0.033	0.011	
78-87-5	1,2-Dichloropropane	0.016	0.039	0.035	0.0096	J
75-27-4	Bromodichloromethane	0.13	0.039	0.035	0.0091	
79-01-6	Trichloroethene	0.033	0.039	0.033	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: SVMW-17-5-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-011

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00678

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.920 Final Pressure (psig): 3.760

Container Dilution Factor: 1.57

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.035	0.16	0.035	0.014	U
10061-01-5	cis-1,3-Dichloropropene	0.033	0.079	0.033	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.033	0.079	0.033	0.0075	U
79-00-5	1,1,2-Trichloroethane	0.033	0.16	0.033	0.0093	U
108-88-3	Toluene	0.35	0.16	0.068	0.019	B
124-48-1	Dibromochloromethane	0.021	0.039	0.033	0.010	J
106-93-4	1,2-Dibromoethane	0.033	0.039	0.033	0.011	U
127-18-4	Tetrachloroethene	0.16	0.039	0.033	0.014	
108-90-7	Chlorobenzene	0.033	0.16	0.033	0.015	U
100-41-4	Ethylbenzene	0.18	0.16	0.033	0.019	
179601-23-1	m,p-Xylenes	0.34	0.16	0.068	0.038	
100-42-5	Styrene	0.10	0.16	0.066	0.019	J
95-47-6	o-Xylene	0.22	0.16	0.033	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.033	0.039	0.033	0.014	U
108-67-8	1,3,5-Trimethylbenzene	0.076	0.16	0.033	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.16	0.033	0.025	
541-73-1	1,3-Dichlorobenzene	0.098	0.039	0.033	0.027	
106-46-7	1,4-Dichlorobenzene	0.033	0.039	0.033	0.031	U
95-50-1	1,2-Dichlorobenzene	0.033	0.039	0.033	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.033	0.16	0.033	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.068	0.079	0.068	0.031	U
91-20-3	Naphthalene	0.52	0.16	0.064	0.035	
87-68-3	Hexachlorobutadiene	0.033	0.16	0.033	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: SVMW-17-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-012

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01318

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.72 Final Pressure (psig): 3.78

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.077	0.032	0.013	
74-87-3	Chloromethane	0.065	0.077	0.065	0.040	U
75-01-4	Vinyl Chloride	0.037	0.039	0.037	0.018	U
106-99-0	1,3-Butadiene	0.065	0.077	0.065	0.012	U
74-83-9	Bromomethane	0.16	0.039	0.034	0.010	B
75-00-3	Chloroethane	0.018	0.039	0.034	0.012	J
107-02-8	Acrolein	0.66	0.31	0.15	0.054	
67-64-1	Acetone	9.5	3.9	0.82	0.35	
75-69-4	Trichlorofluoromethane	1.2	0.077	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.034	0.039	0.034	0.014	U
75-09-2	Methylene Chloride	0.031	0.15	0.065	0.012	J
76-13-1	Trichlorotrifluoroethane	0.53	0.039	0.034	0.012	
156-60-5	trans-1,2-Dichloroethene	0.034	0.039	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.098	0.039	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.74	0.039	0.034	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.039	0.032	0.011	U
67-66-3	Chloroform	0.92	0.15	0.066	0.012	
107-06-2	1,2-Dichloroethane	0.034	0.039	0.034	0.013	U
71-55-6	1,1,1-Trichloroethane	0.026	0.039	0.032	0.014	J
71-43-2	Benzene	0.15	0.12	0.065	0.023	
56-23-5	Carbon Tetrachloride	0.33	0.039	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.022	0.039	0.034	0.0094	J
75-27-4	Bromodichloromethane	0.30	0.039	0.034	0.0089	
79-01-6	Trichloroethene	0.032	0.039	0.032	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-17-10-2
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P2203506-012

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01318

Date Collected: 8/9/22
 Date Received: 8/10/22
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.720 Final Pressure (psig): 3.780

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.034	0.15	0.034	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.032	0.077	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.077	0.032	0.0074	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0091	U
108-88-3	Toluene	0.42	0.15	0.066	0.018	B
124-48-1	Dibromochloromethane	0.046	0.039	0.032	0.0099	
106-93-4	1,2-Dibromoethane	0.032	0.039	0.032	0.010	U
127-18-4	Tetrachloroethene	0.20	0.039	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.25	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.37	0.15	0.066	0.037	
100-42-5	Styrene	0.094	0.15	0.065	0.018	J
95-47-6	o-Xylene	0.26	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.039	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.11	0.15	0.032	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.33	0.15	0.032	0.025	
541-73-1	1,3-Dichlorobenzene	0.14	0.039	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.035	0.039	0.032	0.031	J
95-50-1	1,2-Dichlorobenzene	0.032	0.039	0.032	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.045	0.077	0.066	0.031	J
91-20-3	Naphthalene	0.48	0.15	0.063	0.034	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220822-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.021	0.050	0.021	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.024	0.025	0.024	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.0092	0.025	0.022	0.0067	J
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.53	2.5	0.53	0.23	U
75-69-4	Trichlorofluoromethane	0.021	0.050	0.021	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220822-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: **1.00**

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.014	0.10	0.043	0.012	J
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0086	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.042	0.10	0.042	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister(s) / 6.0 L Silonite Canister(s)
 Test Notes:

Date(s) Collected: 8/8 - 8/9/22
 Date(s) Received: 8/10/22
 Date(s) Analyzed: 8/22/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		% Recovered	% Recovered	% Recovered		
Method Blank	P220822-MB	95	99	101	70-130	
Lab Control Sample	P220822-LCS	95	94	105	70-130	
Duplicate Lab Control Sample	P220822-DLCS	96	99	95	70-130	
SVMW-22-10-2	P2203506-001	96	93	100	70-130	
SVMW-22-15-2	P2203506-002	98	97	103	70-130	
BKGD-080922	P2203506-003	97	99	85	70-130	
DUPE-15-2	P2203506-004	100	97	96	70-130	
SVMW-21-5-2	P2203506-005	100	100	96	70-130	
SVMW-21-10-2	P2203506-006	103	97	95	70-130	
SVMW-21-15-2	P2203506-007	104	98	95	70-130	
SVMW-16-5-2	P2203506-008	106	98	92	70-130	
SVMW-16-10-2	P2203506-009	103	99	101	70-130	
SVMW-16-15-2	P2203506-010	104	97	90	70-130	
SVMW-17-5-2	P2203506-011	105	98	90	70-130	
SVMW-17-10-2	P2203506-012	106	98	88	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220822-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	21.2	20.0	20.1	94	95	59-128	1	25	
74-87-3	Chloromethane	20.6	20.5	20.4	100	99	59-132	1	25	
75-01-4	Vinyl Chloride	20.4	19.6	19.8	96	97	64-127	1	25	
106-99-0	1,3-Butadiene	21.2	17.4	19.2	82	91	66-134	10	25	
74-83-9	Bromomethane	20.6	19.6	19.7	95	96	63-134	1	25	
75-00-3	Chloroethane	20.8	19.7	19.7	95	95	63-127	0	25	
107-02-8	Acrolein	38.8	34.7	34.5	89	89	62-126	0	25	
67-64-1	Acetone	106	86.4	86.3	82	81	58-128	1	25	
75-69-4	Trichlorofluoromethane	21.0	19.6	19.6	93	93	62-126	0	25	
75-35-4	1,1-Dichloroethene	21.6	20.5	20.4	95	94	61-133	1	25	
75-09-2	Methylene Chloride	21.2	19.3	19.3	91	91	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	20.4	20.3	94	94	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	21.6	20.2	20.4	94	94	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.6	20.3	20.3	94	94	68-126	0	25	
1634-04-4	Methyl tert-Butyl Ether	21.4	19.6	19.8	92	93	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	21.4	20.0	20.0	93	93	70-121	0	25	
67-66-3	Chloroform	21.2	19.7	19.7	93	93	68-123	0	25	
107-06-2	1,2-Dichloroethane	21.6	19.7	19.7	91	91	65-128	0	25	
71-55-6	1,1,1-Trichloroethane	21.0	19.7	19.7	94	94	68-125	0	25	
71-43-2	Benzene	21.6	18.8	18.8	87	87	69-119	0	25	
56-23-5	Carbon Tetrachloride	20.6	17.6	17.7	85	86	68-132	1	25	
78-87-5	1,2-Dichloropropane	21.2	19.7	19.8	93	93	69-123	0	25	
75-27-4	Bromodichloromethane	21.6	19.8	20.0	92	93	72-128	1	25	
79-01-6	Trichloroethene	21.2	20.6	20.6	97	97	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203506
 ALS Sample ID: P220822-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/22/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD Limit		
123-91-1	1,4-Dioxane	21.2	19.7	20.1	93	95	71-122	2	25	
10061-01-5	cis-1,3-Dichloropropene	21.6	19.6	20.6	91	95	70-128	4	25	
10061-02-6	trans-1,3-Dichloropropene	20.6	18.5	19.6	90	95	75-133	5	25	
79-00-5	1,1,2-Trichloroethane	21.2	18.2	20.0	86	94	73-119	9	25	
108-88-3	Toluene	21.2	15.5	17.5	73	83	66-119	13	25	
124-48-1	Dibromochloromethane	21.6	19.4	19.9	90	92	70-130	2	25	
106-93-4	1,2-Dibromoethane	20.8	19.1	19.3	92	93	74-122	1	25	
127-18-4	Tetrachloroethene	21.2	20.2	20.2	95	95	66-124	0	25	
108-90-7	Chlorobenzene	21.2	21.2	21.3	100	100	70-119	0	25	
100-41-4	Ethylbenzene	21.0	21.5	21.5	102	102	70-124	0	25	
179601-23-1	m,p-Xylenes	42.0	42.6	42.7	101	102	61-134	1	25	
100-42-5	Styrene	21.2	20.2	20.3	95	96	73-127	1	25	
95-47-6	o-Xylene	21.2	21.8	20.7	103	98	67-125	5	25	
79-34-5	1,1,2,2-Tetrachloroethane	21.2	21.6	20.7	102	98	65-127	4	25	
108-67-8	1,3,5-Trimethylbenzene	21.0	21.6	18.3	103	87	67-130	17	25	
95-63-6	1,2,4-Trimethylbenzene	20.8	20.8	18.0	100	87	66-132	14	25	
541-73-1	1,3-Dichlorobenzene	21.0	20.7	17.3	99	82	65-130	19	25	
106-46-7	1,4-Dichlorobenzene	21.2	19.8	16.6	93	78	60-131	18	25	
95-50-1	1,2-Dichlorobenzene	21.2	20.5	20.4	97	96	63-129	1	25	
96-12-8	1,2-Dibromo-3-chloropropane	41.6	39.8	40.1	96	96	64-143	0	25	
120-82-1	1,2,4-Trichlorobenzene	41.2	30.5	30.7	74	75	55-142	1	25	
91-20-3	Naphthalene	21.6	13.5	13.7	63	63	57-138	0	25	
87-68-3	Hexachlorobutadiene	21.0	18.4	18.4	88	88	56-138	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Kyle Carrillo
Sample Type: 6.0 L Summa Canister(s)
Test Notes:

Lab File ID: 08222204.D
Date Analyzed: 8/22/22
Time Analyzed: 10:16

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220822-LCS	08222205.D	10:47
Duplicate Lab Control Sample	P220822-DLCS	08222206.D	11:18
SVMW-22-10-2	P2203506-001	08222207.D	12:20
SVMW-22-15-2	P2203506-002	08222208.D	12:52
BKGD-080922	P2203506-003	08222209.D	13:24
DUPE-15-2	P2203506-004	08222210.D	13:57
SVMW-21-5-2	P2203506-005	08222212.D	15:07
SVMW-21-10-2	P2203506-006	08222213.D	15:39
SVMW-21-15-2	P2203506-007	08222214.D	16:11
SVMW-16-5-2	P2203506-008	08222215.D	16:44
SVMW-16-10-2	P2203506-009	08222217.D	17:47
SVMW-16-15-2	P2203506-010	08222218.D	18:19
SVMW-17-5-2	P2203506-011	08222219.D	18:51
SVMW-17-10-2	P2203506-012	08222220.D	19:23

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203506

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister(s)
 Test Notes:

Lab File ID: 08222202.D
 Date Analyzed: 8/22/22
 Time Analyzed: 09:15

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
	AREA	#	RT	#	AREA	#	RT	#			
24 Hour Standard	18134		9.57		81909		11.52		14708		15.86
Upper Limit	25388		9.90		114673		11.85		20591		16.19
Lower Limit	10880		9.24		49145		11.19		8825		15.53

Client Sample ID		IS1 (BCM)	IS2 (DFB)	IS3 (CBZ)			
Client Sample ID	Description	AREA	RT	AREA	RT	AREA	RT
01	Method Blank	16219	9.58	75235	11.53	13232	15.87
02	Lab Control Sample	14892	9.57	68408	11.53	11892	15.86
03	Duplicate Lab Control Sample	14272	9.57	65430	11.53	11415	15.86
04	SVMW-22-10-2	15835	9.57	78676	11.52	14167	15.86
05	SVMW-22-15-2	16646	9.57	80062	11.53	14601	15.86
06	BKGD-080922	17746	9.57	82194	11.53	15369	15.86
07	DUPE-15-2	17580	9.57	83547	11.53	16177	15.86
08	SVMW-21-5-2	16212	9.57	76325	11.52	14747	15.86
09	SVMW-21-10-2	16669	9.57	80734	11.53	15104	15.86
10	SVMW-21-15-2	16465	9.57	79187	11.52	14875	15.86
11	SVMW-16-5-2	15769	9.57	78852	11.53	15271	15.86
12	SVMW-16-10-2	15534	9.57	74159	11.53	13109	15.86
13	SVMW-16-15-2	16015	9.57	76779	11.52	14963	15.86
14	SVMW-17-5-2	16286	9.57	78993	11.52	15251	15.86
15	SVMW-17-10-2	16599	9.57	80278	11.52	16004	15.86
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.



LABORATORY REPORT

September 9, 2022

Jessie Moore
HazAir
6565 Americas Pkwy., Ste. 242
Albuquerque, NM 87110

RE: BFF

Dear Jessie:

Enclosed are the results of the samples submitted to our laboratory on August 11, 2022. For your reference, these analyses have been assigned our service request number P2203532.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

ALS | Environmental

By Sue Anderson at 10:07 am, Sep 09, 2022

Sue Anderson
Project Manager



Client: HazAir
Project: BFF

Service Request No: P2203532

CASE NARRATIVE

The samples were received intact under chain of custody on August 11, 2022 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

Volatile Organic Compound Analysis

The samples were also analyzed in both scan and SIM mode for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

Manual integrations were performed on the following sample(s) and analyte(s). Refer to the raw data for additional information.

Sample Identification(s)	Analyte(s)
P2203532-001,-005	Methyl tert-Butyl Ether
P2203532-001	1,4-Dioxane
P2203532-001,-003,-005,-007,-008,-009,-010	Bromomethane
P2203532-003	Dichlorodifluoromethane
P2203532-003,-004	Dibromochloromethane
P2203532-003	1,2-Dichloro,1,1,2,2-tetrafluoroetha
P2203532-009	1,3,5-Trimethylbenzene

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.3 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413- 19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019 -10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946
<p>Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.</p> <p>Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.</p>		

ALS ENVIRONMENTAL

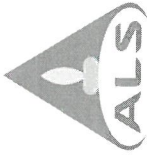
DETAIL SUMMARY REPORT

Client: HazAir
 Project ID: BFF

Service Request: P2203532

Date Received: 8/11/2022
 Time Received: 14:57

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	2nd Pi (psig)	2nd Pf (psig)	TO-3 Modified - TPHG Can	TO-15 - VOC Cans	TO-15 - VOC SIM
SVMW-17-15-2	P2203532-001	Air	8/9/2022	13:58	AS01455	-2.80	3.78	-0.05	2.00	X	X	X
BKGD-081022	P2203532-002	Air	8/10/2022	12:10	SSC00392	-10.55	3.83			X	X	X
DUPE-10-2	P2203532-003	Air	8/10/2022	08:23	AS01473	-2.32	3.59	0.41	1.80	X	X	X
DUPE-5-2	P2203532-004	Air	8/10/2022	09:00	SC02326	-2.22	3.57	0.68	2.55	X	X	X
SVMW-18-5-2	P2203532-005	Air	8/10/2022	09:36	SSC00519	-2.46	3.61	0.80	1.93	X	X	X
SVMW-18-10-2	P2203532-006	Air	8/10/2022	10:03	SSC00535	-2.39	3.60	0.78	2.85	X	X	X
SVMW-18-15-2	P2203532-007	Air	8/10/2022	10:21	AS00974	-2.29	3.79			X	X	X
SVMW-19-5-2	P2203532-008	Air	8/10/2022	11:05	AC02367	-2.33	3.75			X	X	X
SVMW-19-10-2	P2203532-009	Air	8/10/2022	11:32	SC02284	-2.38	3.80			X	X	X
SVMW-19-15-2	P2203532-010	Air	8/10/2022	12:08	AS01598	-2.28	3.74	0.59	1.86	X	X	X



2655 Park Center Drive, Suite A
 Simi Valley, California 93065
 Phone (805) 526-7161

Air - Chain of Custody Record & Analytical Service Request

P2203532

Requested Turnaround Time in Business Days (Surcharges) please circle
 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

Company Name & Address (Reporting Information)		Project Name		ALS Contact:		Analysis Method		Comments e.g. Actual Preservative or specific instructions	
Threat Air 60305 American's Bury Ste 242 APO, NM 97111		BFF		M-Q / ZIP-Q					
Project Manager Denny Taylor		P.O. # / Billing Information		Flow Controller ID (Bar code # - FC #)		Canister Start Pressure "Hg		Sample Volume	
Phone (805) 702-8232 Fax jessie.more@hazair.com		Tyler Zack		Canister End Pressure "Hg/psig					
Email Address for Result Reporting		Canister ID (Bar code # - AC, SC, etc.)		Canister Start Pressure "Hg		Canister End Pressure "Hg/psig		Sample Volume	
Laboratory ID Number		Time Collected		Canister Start Pressure "Hg		Canister End Pressure "Hg/psig			
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Comments
NMW-17-15-2	1	8/9/22	1346	AS01455	NIA	-27	-0.1	uL	See Box F
BXGD-001022	2	8/10/22	1356	SSC0392	SFC0392	-20	-19	uL	See Box F
DUPE-10-2	3	8/10/22	1411	AS01473	NIA	-27	-0.1	uL	See Box F
DUPE-5-2	4	8/10/22	1410	SC02324	NIA	-27	-0.1	uL	See Box F
SJMW-18-5-2	5	8/10/22	1430	SSC0519	NIA	-27	-0.1	uL	See Box G
SJMW-18-10-2	6	8/10/22	1452	SSC0535	NIA	-27	-0.1	uL	See Box G
SJMW-18-15-2	7	8/10/22	1416	AS00977	NIA	-27	-0.1	uL	See Box G
SJMW-19-5-2	8	8/10/22	1455	AC02307	NIA	-27	-0.1	uL	See Box G
SJMW-19-10-2	9	8/10/22	1121	SC02264	NIA	-27	-0.1	uL	See Box H
SJMW-19-15-2	10	8/10/22	1138	AS01598	NIA	-27	-0.1	uL	See Box H

Report Tier Levels - please select
 Tier I - Results (Default if not specified) _____
 Tier II (Results + QC Summaries) _____
 Tier III (Results + QC & Calibration Summaries) _____
 Tier IV (Data Validation Package) 10% Surcharge _____

EDD required Yes / No
 Type: _____ Units: _____

Received by: (Signature) _____ Date: 8-11 Time: 14:57
 Received by: (Signature) _____ Date: _____ Time: _____

Relinquished by: (Signature) _____ Date: 8/10/22 Time: 12:27
 Relinquished by: (Signature) _____ Date: _____ Time: _____

Chain of Custody Seal: (Circle)
 INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)
 Cooler / Blank _____ °C
 Temperature _____ °C

**ALS Environmental
Sample Acceptance Check Form**

Client: HazAir Work order: P2203532
 Project: BFF
 Sample(s) received on: 8/11/22 Date opened: 8/11/22 by: KYLE.WOODIN

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2203532-001.01	6.0 L Silonite Can					
P2203532-002.01	6.0 L Silonite Can					
P2203532-003.01	6.0 L Silonite Can					
P2203532-004.01	6.0 L Source Can					
P2203532-005.01	6.0 L Silonite Can					
P2203532-006.01	6.0 L Silonite Can					
P2203532-007.01	6.0 L Silonite Can					
P2203532-008.01	6.0 L Ambient Can					
P2203532-009.01	6.0 L Source Can					
P2203532-010.01	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 8/9 - 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/15 - 8/16/22

Client Sample ID	ALS Sample ID	Container Dilution Factor	Injection Volume ml(s)	Result mg/m ³	LOQ mg/m ³	LOD mg/m ³	MDL mg/m ³	Data Qualifier
SVMW-17-15-2	P2203532-001	1.55	1.0	6.6	28	4.5	1.4	J
BKGD-081022	P2203532-002	4.47	1.0	13	80	13	4.1	U
DUPE-10-2	P2203532-003	1.48	1.0	4.3	27	4.3	1.3	U
DUPE-5-2	P2203532-004	1.46	1.0	4.2	26	4.2	1.3	U
SVMW-18-5-2	P2203532-005	1.50	1.0	4.8	27	4.4	1.4	J
SVMW-18-10-2	P2203532-006	1.49	1.0	6.0	27	4.3	1.4	J
SVMW-18-15-2	P2203532-007	1.49	1.0	5.8	27	4.3	1.4	J
SVMW-19-5-2	P2203532-008	1.49	1.0	5.1	27	4.3	1.4	J
SVMW-19-10-2	P2203532-009	1.50	1.0	5.2	27	4.4	1.4	J
SVMW-19-15-2	P2203532-010	1.48	1.0	3.1	27	4.3	1.3	J
Method Blank	P220815-MB	1.00	1.0	2.9	18	2.9	0.91	U
Method Blank	P220816-MB	1.00	1.0	2.9	18	2.9	0.91	U

Parts Per Million results are based on a Molecular Weight of 86.18.

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220815-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/15/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result		% Recovery		ALS	RPD	RPD	Data
	LCS / DLCS	LCS	DLCS	LCS	DLCS	Acceptance	RPD	RPD	Data	
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits		Limit	Qualifier	
TPH as Gasoline	7,190	7,440	6,710	103	93	89-124	10	14		

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220816-DLCS

Test Code: EPA TO-3 Modified
 Instrument ID: HP 5890 II/GC21/FID
 Analyst: Gilbert Gutierrez
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount		Result		% Recovery		ALS	RPD	RPD	Data
	LCS / DLCS	LCS	DLCS	LCS	DLCS	Acceptance	RPD	RPD	Data	
	mg/m ³	mg/m ³	mg/m ³	LCS	DLCS	Limits		Limit	Qualifier	
TPH as Gasoline	7,190	7,570	7,190	105	100	89-124	5	14		

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08152206.D
Date Analyzed: 8/15/22
Time Analyzed: 11:07

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220815-LCS	08152204.D	10:25
Duplicate Lab Control Sample	P220815-DLCS	08152205.D	10:46
SVMW-17-15-2	P2203532-001	08152220.D	15:34
BKGD-081022	P2203532-002	08152221.D	15:50
DUPE-10-2	P2203532-003	08152222.D	16:07
DUPE-5-2	P2203532-004	08152223.D	16:23

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Method Blank Summary

Test Code: EPA TO-3 Modified
Instrument ID: HP 5890 II/GC21/FID
Analyst: Gilbert Gutierrez
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08162205.D
Date Analyzed: 8/16/22
Time Analyzed: 11:07

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220816-LCS	08162203.D	10:32
Duplicate Lab Control Sample	P220816-DLCS	08162204.D	10:51
SVMW-18-5-2	P2203532-005	08162206.D	11:24
SVMW-18-10-2	P2203532-006	08162207.D	11:40
SVMW-18-15-2	P2203532-007	08162208.D	12:13
SVMW-19-5-2	P2203532-008	08162209.D	12:36
SVMW-19-10-2	P2203532-009	08162210.D	13:01
SVMW-19-15-2	P2203532-010	08162211.D	13:18

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-17-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01455

Date Collected: 8/9/22
 Date Received: 8/11/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.80 Final Pressure (psig): 3.78
 Initial Pressure 2 (psig): -0.05 Final Pressure 2 (psig): 2.00

Container Dilution Factor: 1.77

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.55	0.94	0.55	0.19	U
110-82-7	Cyclohexane	0.58	1.9	0.58	0.27	U
142-82-5	n-Heptane	0.55	0.94	0.55	0.15	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: BKGD-081022
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00392

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -10.55 Final Pressure (psig): 3.83

Container Dilution Factor: 4.47

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	1.4	2.4	1.4	0.49	U
110-82-7	Cyclohexane	1.5	4.9	1.5	0.67	U
142-82-5	n-Heptane	0.41	2.4	1.4	0.38	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01473

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/27/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.32 Final Pressure (psig): 3.59
 Initial Pressure 2 (psig): 0.41 Final Pressure 2 (psig): 1.80

Container Dilution Factor: 1.61

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.24	0.85	0.50	0.18	J
110-82-7	Cyclohexane	0.53	1.8	0.53	0.24	U
142-82-5	n-Heptane	0.50	0.85	0.50	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02326

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/27/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.57
 Initial Pressure 2 (psig): 0.68 Final Pressure 2 (psig): 2.55

Container Dilution Factor: 1.64

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.27	0.87	0.51	0.18	J
110-82-7	Cyclohexane	0.54	1.8	0.54	0.25	U
142-82-5	n-Heptane	0.15	0.87	0.51	0.14	J

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00519

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/27/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.46 Final Pressure (psig): 3.61
 Initial Pressure 2 (psig): 0.80 Final Pressure 2 (psig): 1.93

Container Dilution Factor: 1.60

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.50	0.85	0.50	0.18	U
110-82-7	Cyclohexane	0.53	1.8	0.53	0.24	U
142-82-5	n-Heptane	0.50	0.85	0.50	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-18-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-006

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00535

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/27/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.39 Final Pressure (psig): 3.60
 Initial Pressure 2 (psig): 0.78 Final Pressure 2 (psig): 2.85

Container Dilution Factor: 1.69

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
110-54-3	n-Hexane	0.22	0.90	0.52	0.19	J
110-82-7	Cyclohexane	0.56	1.9	0.56	0.25	U
142-82-5	n-Heptane	0.52	0.90	0.52	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-18-15-2
Client Project ID: BFF

ALS Project ID: P2203532
ALS Sample ID: P2203532-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sampling Media: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00974

Date Collected: 8/10/22
Date Received: 8/11/22
Date Analyzed: 8/27/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.29

Final Pressure (psig): 3.79

Container Dilution Factor: 1.49

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.46	0.79	0.46	0.16	U
110-82-7	Cyclohexane	0.49	1.6	0.49	0.22	U
142-82-5	n-Heptane	0.46	0.79	0.46	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-008

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02367

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/27/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.33 Final Pressure (psig): 3.75

Container Dilution Factor: 1.49

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.46	0.79	0.46	0.16	U
110-82-7	Cyclohexane	0.49	1.6	0.49	0.22	U
142-82-5	n-Heptane	0.46	0.79	0.46	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Sample ID: SVMW-19-10-2
Client Project ID: BFF

ALS Project ID: P2203532
ALS Sample ID: P2203532-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC02284

Date Collected: 8/10/22
Date Received: 8/11/22
Date Analyzed: 8/27/22
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.38 Final Pressure (psig): 3.80

Container Dilution Factor: 1.50

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.47	0.80	0.47	0.17	U
110-82-7	Cyclohexane	0.50	1.7	0.50	0.23	U
142-82-5	n-Heptane	0.47	0.80	0.47	0.13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-010

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: AS01598

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/27/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.28 Final Pressure (psig): 3.74
 Initial Pressure 2 (psig): 0.59 Final Pressure 2 (psig): 1.86

Container Dilution Factor: 1.61

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.50	0.85	0.50	0.18	U
110-82-7	Cyclohexane	0.53	1.8	0.53	0.24	U
142-82-5	n-Heptane	0.50	0.85	0.50	0.14	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
 LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203532
ALS Sample ID: P220826-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sampling Media: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/26/22
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	LOQ $\mu\text{g}/\text{m}^3$	LOD $\mu\text{g}/\text{m}^3$	MDL $\mu\text{g}/\text{m}^3$	Data Qualifier
110-54-3	n-Hexane	0.31	0.53	0.31	0.11	U
110-82-7	Cyclohexane	0.33	1.1	0.33	0.15	U
142-82-5	n-Heptane	0.31	0.53	0.31	0.085	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 8/9 - 8/10/22
 Date(s) Received: 8/11/22
 Date(s) Analyzed: 8/26 - 8/27/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P220826-MB	104	101	95	70-130	
Lab Control Sample	P220826-LCS	103	101	97	70-130	
Duplicate Lab Control Sample	P220826-DLCS	104	99	96	70-130	
SVMW-17-15-2	P2203532-001	103	100	96	70-130	
BKGD-081022	P2203532-002	106	98	96	70-130	
DUPE-10-2	P2203532-003	107	96	96	70-130	
DUPE-5-2	P2203532-004	108	95	96	70-130	
SVMW-18-5-2	P2203532-005	106	98	97	70-130	
SVMW-18-10-2	P2203532-006	106	97	96	70-130	
SVMW-18-15-2	P2203532-007	107	98	98	70-130	
SVMW-19-5-2	P2203532-008	107	97	97	70-130	
SVMW-19-10-2	P2203532-009	108	96	97	70-130	
SVMW-19-15-2	P2203532-010	108	97	97	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220826-DLCS

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/26/22
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
110-54-3	n-Hexane	42.4	36.6	37.0	86	87	63-120	1	25	
110-82-7	Cyclohexane	84.4	76.2	76.8	90	91	70-117	1	25	
142-82-5	n-Heptane	42.4	38.4	38.7	91	91	69-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sampling Media: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08262205.D
Date Analyzed: 8/26/22
Time Analyzed: 21:26

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220826-LCS	08262206.D	21:58
Duplicate Lab Control Sample	P220826-DLCS	08262207.D	22:30
SVMW-17-15-2	P2203532-001	08262208.D	23:02
BKGD-081022	P2203532-002	08262209.D	23:35
DUPE-10-2	P2203532-003	08262210.D	00:07
DUPE-5-2	P2203532-004	08262211.D	00:39
SVMW-18-5-2	P2203532-005	08262212.D	01:11
SVMW-18-10-2	P2203532-006	08262213.D	01:43
SVMW-18-15-2	P2203532-007	08262214.D	02:16
SVMW-19-5-2	P2203532-008	08262215.D	02:48
SVMW-19-10-2	P2203532-009	08262216.D	03:20
SVMW-19-15-2	P2203532-010	08262217.D	03:52

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Internal Standard Area and RT Summary

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Simon Cao
 Sampling Media: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 08262202.D
 Date Analyzed: 8/26/22
 Time Analyzed: 19:49

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	211808	7.21	870221	9.28	157974	14.81
Upper Limit	296531	7.54	1218309	9.61	221164	15.14
Lower Limit	127085	6.88	522133	8.95	94784	14.48

Client Sample ID		IS1 (BCM)	IS2 (DFB)	IS3 (CBZ)
Client Sample ID	Description	AREA #	RT #	AREA #
01	Method Blank	197894	7.20	813792
02	Lab Control Sample	206640	7.21	834841
03	Duplicate Lab Control Sample	202539	7.21	825111
04	SVMW-17-15-2	196415	7.20	800466
05	BKGD-081022	191522	7.20	775788
06	DUPE-10-2	180049	7.20	723676
07	DUPE-5-2	178518	7.20	717898
08	SVMW-18-5-2	188525	7.20	767727
09	SVMW-18-10-2	186515	7.20	755860
10	SVMW-18-15-2	185698	7.20	758635
11	SVMW-19-5-2	182041	7.20	740004
12	SVMW-19-10-2	177682	7.20	718253
13	SVMW-19-15-2	177013	7.20	724052
14				
15				
16				
17				
18				
19				
20				

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: SVMW-17-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01455

Date Collected: 8/9/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.80 Final Pressure (psig): 3.78

Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.8	0.078	0.033	0.013	
74-87-3	Chloromethane	0.065	0.078	0.065	0.040	U
75-01-4	Vinyl Chloride	0.037	0.039	0.037	0.019	U
106-99-0	1,3-Butadiene	0.065	0.078	0.065	0.012	U
74-83-9	Bromomethane	0.090	0.039	0.034	0.010	
75-00-3	Chloroethane	0.034	0.039	0.034	0.012	U
107-02-8	Acrolein	0.64	0.31	0.16	0.054	
67-64-1	Acetone	12	3.9	0.82	0.36	
75-69-4	Trichlorofluoromethane	1.1	0.078	0.033	0.013	
75-35-4	1,1-Dichloroethene	0.034	0.039	0.034	0.014	U
75-09-2	Methylene Chloride	0.037	0.16	0.065	0.012	J
76-13-1	Trichlorotrifluoroethane	0.56	0.039	0.034	0.013	
156-60-5	trans-1,2-Dichloroethene	0.034	0.039	0.034	0.017	U
75-34-3	1,1-Dichloroethane	0.083	0.039	0.034	0.013	
1634-04-4	Methyl tert-Butyl Ether	0.096	0.039	0.034	0.019	
156-59-2	cis-1,2-Dichloroethene	0.033	0.039	0.033	0.011	U
67-66-3	Chloroform	0.92	0.16	0.067	0.012	
107-06-2	1,2-Dichloroethane	0.034	0.039	0.034	0.013	U
71-55-6	1,1,1-Trichloroethane	0.033	0.039	0.033	0.014	U
71-43-2	Benzene	0.14	0.12	0.065	0.023	
56-23-5	Carbon Tetrachloride	0.38	0.039	0.033	0.011	
78-87-5	1,2-Dichloropropane	0.021	0.039	0.034	0.0095	J
75-27-4	Bromodichloromethane	0.20	0.039	0.034	0.0090	
79-01-6	Trichloroethene	0.033	0.039	0.033	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: SVMW-17-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-001

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01455

Date Collected: 8/9/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.80 Final Pressure (psig): 3.78

Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.034	0.16	0.034	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.033	0.078	0.033	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.033	0.078	0.033	0.0074	U
79-00-5	1,1,2-Trichloroethane	0.033	0.16	0.033	0.0091	U
108-88-3	Toluene	0.38	0.16	0.067	0.019	B
124-48-1	Dibromochloromethane	0.022	0.039	0.033	0.0099	J
106-93-4	1,2-Dibromoethane	0.033	0.039	0.033	0.010	U
127-18-4	Tetrachloroethene	0.29	0.039	0.033	0.013	
108-90-7	Chlorobenzene	0.033	0.16	0.033	0.015	U
100-41-4	Ethylbenzene	0.23	0.16	0.033	0.019	
179601-23-1	m,p-Xylenes	0.38	0.16	0.067	0.037	
100-42-5	Styrene	0.11	0.16	0.065	0.019	J
95-47-6	o-Xylene	0.26	0.16	0.033	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.019	0.039	0.033	0.013	J
108-67-8	1,3,5-Trimethylbenzene	0.11	0.16	0.033	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.28	0.16	0.033	0.025	
541-73-1	1,3-Dichlorobenzene	0.16	0.039	0.033	0.026	
106-46-7	1,4-Dichlorobenzene	0.033	0.039	0.033	0.031	U
95-50-1	1,2-Dichlorobenzene	0.033	0.039	0.033	0.028	U
96-12-8	1,2-Dibromo-3-chloropropane	0.033	0.16	0.033	0.022	U
120-82-1	1,2,4-Trichlorobenzene	0.068	0.078	0.067	0.031	J
91-20-3	Naphthalene	1.1	0.16	0.064	0.034	
87-68-3	Hexachlorobutadiene	0.033	0.16	0.033	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: BKGD-081022
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00392

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -10.55 Final Pressure (psig): 3.83

Container Dilution Factor: 4.47

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.22	0.094	0.038	
74-87-3	Chloromethane	1.7	0.22	0.19	0.12	
75-01-4	Vinyl Chloride	0.11	0.11	0.11	0.054	U
106-99-0	1,3-Butadiene	0.19	0.22	0.19	0.035	U
74-83-9	Bromomethane	0.098	0.11	0.098	0.030	J
75-00-3	Chloroethane	0.065	0.11	0.098	0.035	J
107-02-8	Acrolein	0.73	0.89	0.45	0.16	J
67-64-1	Acetone	65	11	2.4	1.0	
75-69-4	Trichlorofluoromethane	0.91	0.22	0.094	0.036	
75-35-4	1,1-Dichloroethene	0.098	0.11	0.098	0.039	U
75-09-2	Methylene Chloride	0.24	0.45	0.19	0.035	J
76-13-1	Trichlorotrifluoroethane	0.38	0.11	0.098	0.036	
156-60-5	trans-1,2-Dichloroethene	0.44	0.11	0.098	0.049	
75-34-3	1,1-Dichloroethane	0.14	0.11	0.098	0.037	
1634-04-4	Methyl tert-Butyl Ether	0.098	0.11	0.098	0.054	U
156-59-2	cis-1,2-Dichloroethene	0.094	0.11	0.094	0.032	U
67-66-3	Chloroform	0.051	0.45	0.19	0.036	J
107-06-2	1,2-Dichloroethane	1.5	0.11	0.098	0.037	
71-55-6	1,1,1-Trichloroethane	0.094	0.11	0.094	0.040	U
71-43-2	Benzene	0.49	0.34	0.19	0.067	
56-23-5	Carbon Tetrachloride	0.48	0.11	0.094	0.032	
78-87-5	1,2-Dichloropropane	0.098	0.11	0.098	0.027	U
75-27-4	Bromodichloromethane	0.098	0.11	0.098	0.026	U
79-01-6	Trichloroethene	0.094	0.11	0.094	0.034	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: BKGD-081022
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-002

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00392

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -10.55 Final Pressure (psig): 3.83

Container Dilution Factor: 4.47

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.098	0.45	0.098	0.039	U
10061-01-5	cis-1,3-Dichloropropene	0.094	0.22	0.094	0.032	U
10061-02-6	trans-1,3-Dichloropropene	0.094	0.22	0.094	0.021	U
79-00-5	1,1,2-Trichloroethane	0.094	0.45	0.094	0.026	U
108-88-3	Toluene	1.3	0.45	0.19	0.054	B
124-48-1	Dibromochloromethane	0.094	0.11	0.094	0.029	U
106-93-4	1,2-Dibromoethane	0.094	0.11	0.094	0.030	U
127-18-4	Tetrachloroethene	0.055	0.11	0.094	0.038	J
108-90-7	Chlorobenzene	0.094	0.45	0.094	0.043	U
100-41-4	Ethylbenzene	0.51	0.45	0.094	0.054	
179601-23-1	m,p-Xylenes	1.4	0.45	0.19	0.11	
100-42-5	Styrene	0.95	0.45	0.19	0.054	
95-47-6	o-Xylene	0.50	0.45	0.094	0.058	
79-34-5	1,1,2,2-Tetrachloroethane	0.094	0.11	0.094	0.039	U
108-67-8	1,3,5-Trimethylbenzene	0.10	0.45	0.094	0.063	J
95-63-6	1,2,4-Trimethylbenzene	0.30	0.45	0.094	0.072	J
541-73-1	1,3-Dichlorobenzene	0.094	0.11	0.094	0.076	U
106-46-7	1,4-Dichlorobenzene	0.094	0.11	0.094	0.089	U
95-50-1	1,2-Dichlorobenzene	0.094	0.11	0.094	0.080	U
96-12-8	1,2-Dibromo-3-chloropropane	0.094	0.45	0.094	0.063	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.22	0.19	0.089	U
91-20-3	Naphthalene	0.33	0.45	0.18	0.098	J
87-68-3	Hexachlorobutadiene	0.094	0.45	0.094	0.058	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01473

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.32 Final Pressure (psig): 3.59

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.4	0.074	0.031	0.013	
74-87-3	Chloromethane	0.64	0.074	0.062	0.038	
75-01-4	Vinyl Chloride	0.036	0.037	0.036	0.018	U
106-99-0	1,3-Butadiene	0.062	0.074	0.062	0.012	U
74-83-9	Bromomethane	0.38	0.037	0.033	0.0099	
75-00-3	Chloroethane	0.033	0.037	0.033	0.012	U
107-02-8	Acrolein	0.24	0.30	0.15	0.052	J
67-64-1	Acetone	5.4	3.7	0.78	0.34	
75-69-4	Trichlorofluoromethane	1.4	0.074	0.031	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.022	0.15	0.062	0.012	J
76-13-1	Trichlorotrifluoroethane	0.44	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.048	0.037	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.24	0.037	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	1.7	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.014	0.037	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.015	0.037	0.031	0.013	J
71-43-2	Benzene	0.14	0.11	0.062	0.022	
56-23-5	Carbon Tetrachloride	0.14	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.093	0.037	0.033	0.0090	
75-27-4	Bromodichloromethane	0.16	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.083	0.037	0.031	0.011	

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: DUPE-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-003

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01473

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.32 Final Pressure (psig): 3.59

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.023	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.031	0.074	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.042	0.074	0.031	0.0071	J
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0087	U
108-88-3	Toluene	1.2	0.15	0.064	0.018	B
124-48-1	Dibromochloromethane	0.012	0.037	0.031	0.0095	J
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0099	U
127-18-4	Tetrachloroethene	2.4	0.037	0.031	0.013	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.21	0.15	0.031	0.018	
179601-23-1	m,p-Xylenes	0.47	0.15	0.064	0.036	
100-42-5	Styrene	0.44	0.15	0.062	0.018	
95-47-6	o-Xylene	0.21	0.15	0.031	0.019	
79-34-5	1,1,2,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.055	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.48	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	U
106-46-7	1,4-Dichlorobenzene	0.030	0.037	0.031	0.030	J
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.074	0.064	0.030	U
91-20-3	Naphthalene	0.21	0.15	0.061	0.033	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02326

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.57

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.073	0.031	0.012	
74-87-3	Chloromethane	0.061	0.073	0.061	0.038	U
75-01-4	Vinyl Chloride	0.035	0.037	0.035	0.018	U
106-99-0	1,3-Butadiene	0.061	0.073	0.061	0.012	U
74-83-9	Bromomethane	0.30	0.037	0.032	0.0098	
75-00-3	Chloroethane	0.028	0.037	0.032	0.011	J
107-02-8	Acrolein	0.70	0.29	0.15	0.051	
67-64-1	Acetone	11	3.7	0.77	0.34	
75-69-4	Trichlorofluoromethane	1.5	0.073	0.031	0.012	
75-35-4	1,1-Dichloroethene	0.032	0.037	0.032	0.013	U
75-09-2	Methylene Chloride	0.077	0.15	0.061	0.011	J
76-13-1	Trichlorotrifluoroethane	14	0.037	0.032	0.012	
156-60-5	trans-1,2-Dichloroethene	0.032	0.037	0.032	0.016	U
75-34-3	1,1-Dichloroethane	0.074	0.037	0.032	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.032	0.037	0.032	0.018	U
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.23	0.15	0.063	0.012	
107-06-2	1,2-Dichloroethane	0.11	0.037	0.032	0.012	
71-55-6	1,1,1-Trichloroethane	0.031	0.037	0.031	0.013	U
71-43-2	Benzene	0.16	0.11	0.061	0.022	
56-23-5	Carbon Tetrachloride	3.5	0.037	0.031	0.010	
78-87-5	1,2-Dichloropropane	0.017	0.037	0.032	0.0089	J
75-27-4	Bromodichloromethane	0.074	0.037	0.032	0.0085	
79-01-6	Trichloroethene	0.031	0.037	0.031	0.011	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: DUPE-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-004

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02326

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.57

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.052	0.15	0.032	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.031	0.073	0.031	0.010	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.073	0.031	0.0070	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0086	U
108-88-3	Toluene	1.6	0.15	0.063	0.018	B
124-48-1	Dibromochloromethane	0.011	0.037	0.031	0.0093	J
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0098	U
127-18-4	Tetrachloroethene	0.19	0.037	0.031	0.013	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.37	0.15	0.031	0.018	
179601-23-1	m,p-Xylenes	0.95	0.15	0.063	0.035	
100-42-5	Styrene	0.82	0.15	0.061	0.018	
95-47-6	o-Xylene	0.52	0.15	0.031	0.019	
79-34-5	1,1,2,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.24	0.15	0.031	0.020	
95-63-6	1,2,4-Trimethylbenzene	0.57	0.15	0.031	0.023	
541-73-1	1,3-Dichlorobenzene	0.031	0.037	0.031	0.025	J
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.029	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.026	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.020	U
120-82-1	1,2,4-Trichlorobenzene	0.032	0.073	0.063	0.029	J
91-20-3	Naphthalene	0.84	0.15	0.060	0.032	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00519

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.46 Final Pressure (psig): 3.61

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.075	0.032	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.062	0.038	0.033	0.010	
75-00-3	Chloroethane	0.033	0.038	0.033	0.012	U
107-02-8	Acrolein	0.18	0.30	0.15	0.053	J
67-64-1	Acetone	5.0	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	0.99	0.075	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.027	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.41	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.020	0.038	0.033	0.017	J
75-34-3	1,1-Dichloroethane	0.051	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.049	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	0.089	0.15	0.065	0.012	J
107-06-2	1,2-Dichloroethane	0.033	0.038	0.033	0.012	U
71-55-6	1,1,1-Trichloroethane	0.015	0.038	0.032	0.014	J
71-43-2	Benzene	0.088	0.11	0.063	0.023	J
56-23-5	Carbon Tetrachloride	0.30	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.017	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.026	0.038	0.033	0.0087	J
79-01-6	Trichloroethene	0.032	0.038	0.032	0.012	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-005

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00519

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.46 Final Pressure (psig): 3.61

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.060	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.25	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.032	0.038	0.032	0.0096	U
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.079	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.17	0.15	0.032	0.018	
179601-23-1	m,p-Xylenes	0.29	0.15	0.065	0.036	
100-42-5	Styrene	0.074	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.20	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.077	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.092	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.075	0.065	0.030	U
91-20-3	Naphthalene	0.56	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00535

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.39 Final Pressure (psig): 3.60

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.075	0.031	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.027	0.037	0.036	0.018	J
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.38	0.037	0.033	0.010	
75-00-3	Chloroethane	0.20	0.037	0.033	0.012	
107-02-8	Acrolein	2.7	0.30	0.15	0.052	
67-64-1	Acetone	20	3.7	0.79	0.34	
75-69-4	Trichlorofluoromethane	1.0	0.075	0.031	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.054	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.41	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.073	0.037	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.56	0.037	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.19	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.033	0.037	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.014	0.037	0.031	0.013	J
71-43-2	Benzene	0.20	0.11	0.063	0.022	
56-23-5	Carbon Tetrachloride	0.23	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.018	0.037	0.033	0.0091	J
75-27-4	Bromodichloromethane	0.039	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.031	0.037	0.031	0.011	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-006

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00535

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.39 Final Pressure (psig): 3.60

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.37	0.15	0.033	0.013	
10061-01-5	cis-1,3-Dichloropropene	0.031	0.075	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.075	0.031	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0088	U
108-88-3	Toluene	0.38	0.15	0.064	0.018	B
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.010	U
127-18-4	Tetrachloroethene	0.067	0.037	0.031	0.013	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.17	0.15	0.031	0.018	
179601-23-1	m,p-Xylenes	0.28	0.15	0.064	0.036	
100-42-5	Styrene	0.25	0.15	0.063	0.018	
95-47-6	o-Xylene	0.18	0.15	0.031	0.019	
79-34-5	1,1,1,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.069	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.28	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.080	0.037	0.031	0.025	
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.031	0.075	0.064	0.030	J
91-20-3	Naphthalene	0.45	0.15	0.061	0.033	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00974

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.29 Final Pressure (psig): 3.79

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.075	0.031	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.037	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.062	0.037	0.033	0.010	
75-00-3	Chloroethane	0.012	0.037	0.033	0.012	J
107-02-8	Acrolein	0.45	0.30	0.15	0.052	
67-64-1	Acetone	5.9	3.7	0.79	0.34	
75-69-4	Trichlorofluoromethane	1.0	0.075	0.031	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.049	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.40	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.052	0.037	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.46	0.037	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.29	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.042	0.037	0.033	0.012	
71-55-6	1,1,1-Trichloroethane	0.015	0.037	0.031	0.013	J
71-43-2	Benzene	0.12	0.11	0.063	0.022	
56-23-5	Carbon Tetrachloride	0.20	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.018	0.037	0.033	0.0091	J
75-27-4	Bromodichloromethane	0.052	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.031	0.037	0.031	0.011	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-18-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-007

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00974

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.29 Final Pressure (psig): 3.79

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.034	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.031	0.075	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.075	0.031	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0088	U
108-88-3	Toluene	0.41	0.15	0.064	0.018	B
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.010	U
127-18-4	Tetrachloroethene	0.091	0.037	0.031	0.013	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.19	0.15	0.031	0.018	
179601-23-1	m,p-Xylenes	0.32	0.15	0.064	0.036	
100-42-5	Styrene	0.078	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.20	0.15	0.031	0.019	
79-34-5	1,1,2,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.052	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.083	0.037	0.031	0.025	
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.075	0.064	0.030	U
91-20-3	Naphthalene	0.28	0.15	0.061	0.033	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02367

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.33 Final Pressure (psig): 3.75

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.075	0.031	0.013	
74-87-3	Chloromethane	0.063	0.075	0.063	0.039	U
75-01-4	Vinyl Chloride	0.036	0.037	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.071	0.037	0.033	0.010	
75-00-3	Chloroethane	0.015	0.037	0.033	0.012	J
107-02-8	Acrolein	0.35	0.30	0.15	0.052	
67-64-1	Acetone	6.4	3.7	0.79	0.34	
75-69-4	Trichlorofluoromethane	0.97	0.075	0.031	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.020	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.40	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.046	0.037	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.35	0.037	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.046	0.15	0.064	0.012	J
107-06-2	1,2-Dichloroethane	0.026	0.037	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.11	0.037	0.031	0.013	
71-43-2	Benzene	0.064	0.11	0.063	0.022	J
56-23-5	Carbon Tetrachloride	0.31	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.012	0.037	0.033	0.0091	J
75-27-4	Bromodichloromethane	0.014	0.037	0.033	0.0086	J
79-01-6	Trichloroethene	0.031	0.037	0.031	0.011	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-5-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-008

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AC02367

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.33 Final Pressure (psig): 3.75

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.017	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.031	0.075	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.075	0.031	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0088	U
108-88-3	Toluene	0.19	0.15	0.064	0.018	B
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.010	U
127-18-4	Tetrachloroethene	0.098	0.037	0.031	0.013	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.13	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.22	0.15	0.064	0.036	
100-42-5	Styrene	0.067	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.16	0.15	0.031	0.019	
79-34-5	1,1,2,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.049	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.34	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.071	0.037	0.031	0.025	
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.048	0.037	0.031	0.027	
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.075	0.064	0.030	U
91-20-3	Naphthalene	0.63	0.15	0.061	0.033	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02284

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.38 Final Pressure (psig): 3.80

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.075	0.032	0.013	
74-87-3	Chloromethane	0.061	0.075	0.063	0.039	J
75-01-4	Vinyl Chloride	0.036	0.038	0.036	0.018	U
106-99-0	1,3-Butadiene	0.063	0.075	0.063	0.012	U
74-83-9	Bromomethane	0.12	0.038	0.033	0.010	
75-00-3	Chloroethane	0.032	0.038	0.033	0.012	J
107-02-8	Acrolein	1.3	0.30	0.15	0.053	
67-64-1	Acetone	10	3.8	0.80	0.35	
75-69-4	Trichlorofluoromethane	1.0	0.075	0.032	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	U
75-09-2	Methylene Chloride	0.027	0.15	0.063	0.012	J
76-13-1	Trichlorotrifluoroethane	0.43	0.038	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.038	0.033	0.017	U
75-34-3	1,1-Dichloroethane	0.066	0.038	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.53	0.038	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.011	U
67-66-3	Chloroform	0.14	0.15	0.065	0.012	J
107-06-2	1,2-Dichloroethane	0.014	0.038	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.35	0.038	0.032	0.014	
71-43-2	Benzene	0.063	0.11	0.063	0.023	J
56-23-5	Carbon Tetrachloride	0.27	0.038	0.032	0.011	
78-87-5	1,2-Dichloropropane	0.012	0.038	0.033	0.0092	J
75-27-4	Bromodichloromethane	0.034	0.038	0.033	0.0087	J
79-01-6	Trichloroethene	0.022	0.038	0.032	0.012	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-10-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-009

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: SC02284

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.38 Final Pressure (psig): 3.80

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.11	0.15	0.033	0.013	J
10061-01-5	cis-1,3-Dichloropropene	0.032	0.075	0.032	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.032	0.075	0.032	0.0072	U
79-00-5	1,1,2-Trichloroethane	0.032	0.15	0.032	0.0089	U
108-88-3	Toluene	0.20	0.15	0.065	0.018	B
124-48-1	Dibromochloromethane	0.032	0.038	0.032	0.0096	U
106-93-4	1,2-Dibromoethane	0.032	0.038	0.032	0.010	U
127-18-4	Tetrachloroethene	0.069	0.038	0.032	0.013	
108-90-7	Chlorobenzene	0.032	0.15	0.032	0.015	U
100-41-4	Ethylbenzene	0.14	0.15	0.032	0.018	J
179601-23-1	m,p-Xylenes	0.28	0.15	0.065	0.036	
100-42-5	Styrene	0.060	0.15	0.063	0.018	J
95-47-6	o-Xylene	0.17	0.15	0.032	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.032	0.038	0.032	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.044	0.15	0.032	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.33	0.15	0.032	0.024	
541-73-1	1,3-Dichlorobenzene	0.073	0.038	0.032	0.026	
106-46-7	1,4-Dichlorobenzene	0.032	0.038	0.032	0.030	U
95-50-1	1,2-Dichlorobenzene	0.032	0.038	0.032	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.032	0.15	0.032	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.065	0.075	0.065	0.030	U
91-20-3	Naphthalene	0.45	0.15	0.062	0.033	
87-68-3	Hexachlorobutadiene	0.032	0.15	0.032	0.020	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

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RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-010

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AS01598

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.28 Final Pressure (psig): 3.74

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.074	0.031	0.013	
74-87-3	Chloromethane	0.062	0.074	0.062	0.038	U
75-01-4	Vinyl Chloride	0.036	0.037	0.036	0.018	U
106-99-0	1,3-Butadiene	0.062	0.074	0.062	0.012	U
74-83-9	Bromomethane	0.036	0.037	0.033	0.0099	J
75-00-3	Chloroethane	0.033	0.037	0.033	0.012	U
107-02-8	Acrolein	0.62	0.30	0.15	0.052	
67-64-1	Acetone	6.4	3.7	0.78	0.34	
75-69-4	Trichlorofluoromethane	1.0	0.074	0.031	0.012	
75-35-4	1,1-Dichloroethene	0.033	0.037	0.033	0.013	U
75-09-2	Methylene Chloride	0.016	0.15	0.062	0.012	J
76-13-1	Trichlorotrifluoroethane	0.40	0.037	0.033	0.012	
156-60-5	trans-1,2-Dichloroethene	0.033	0.037	0.033	0.016	U
75-34-3	1,1-Dichloroethane	0.12	0.037	0.033	0.012	
1634-04-4	Methyl tert-Butyl Ether	0.82	0.037	0.033	0.018	
156-59-2	cis-1,2-Dichloroethene	0.031	0.037	0.031	0.011	U
67-66-3	Chloroform	0.22	0.15	0.064	0.012	
107-06-2	1,2-Dichloroethane	0.037	0.037	0.033	0.012	J
71-55-6	1,1,1-Trichloroethane	0.41	0.037	0.031	0.013	
71-43-2	Benzene	0.065	0.11	0.062	0.022	J
56-23-5	Carbon Tetrachloride	0.23	0.037	0.031	0.011	
78-87-5	1,2-Dichloropropane	0.033	0.037	0.033	0.0090	U
75-27-4	Bromodichloromethane	0.054	0.037	0.033	0.0086	
79-01-6	Trichloroethene	0.036	0.037	0.031	0.011	J

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: HazAir
Client Sample ID: SVMW-19-15-2
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P2203532-010

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Summa Canister
 Test Notes:
 Container ID: AS01598

Date Collected: 8/10/22
 Date Received: 8/11/22
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.28 Final Pressure (psig): 3.74

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.033	0.15	0.033	0.013	U
10061-01-5	cis-1,3-Dichloropropene	0.031	0.074	0.031	0.011	U
10061-02-6	trans-1,3-Dichloropropene	0.031	0.074	0.031	0.0071	U
79-00-5	1,1,2-Trichloroethane	0.031	0.15	0.031	0.0087	U
108-88-3	Toluene	0.14	0.15	0.064	0.018	J, B
124-48-1	Dibromochloromethane	0.031	0.037	0.031	0.0095	U
106-93-4	1,2-Dibromoethane	0.031	0.037	0.031	0.0099	U
127-18-4	Tetrachloroethene	0.079	0.037	0.031	0.013	
108-90-7	Chlorobenzene	0.031	0.15	0.031	0.014	U
100-41-4	Ethylbenzene	0.055	0.15	0.031	0.018	J
179601-23-1	m,p-Xylenes	0.13	0.15	0.064	0.036	J
100-42-5	Styrene	0.051	0.15	0.062	0.018	J
95-47-6	o-Xylene	0.11	0.15	0.031	0.019	J
79-34-5	1,1,2,2-Tetrachloroethane	0.031	0.037	0.031	0.013	U
108-67-8	1,3,5-Trimethylbenzene	0.034	0.15	0.031	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.28	0.15	0.031	0.024	
541-73-1	1,3-Dichlorobenzene	0.028	0.037	0.031	0.025	J
106-46-7	1,4-Dichlorobenzene	0.031	0.037	0.031	0.030	U
95-50-1	1,2-Dichlorobenzene	0.031	0.037	0.031	0.027	U
96-12-8	1,2-Dibromo-3-chloropropane	0.031	0.15	0.031	0.021	U
120-82-1	1,2,4-Trichlorobenzene	0.064	0.074	0.064	0.030	U
91-20-3	Naphthalene	0.47	0.15	0.061	0.033	
87-68-3	Hexachlorobutadiene	0.031	0.15	0.031	0.019	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220816-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.021	0.050	0.021	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.024	0.025	0.024	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.53	2.5	0.53	0.23	U
75-69-4	Trichlorofluoromethane	0.021	0.050	0.021	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220816-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.025	0.10	0.043	0.012	J
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0086	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.042	0.10	0.042	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220817-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	0.021	0.050	0.021	0.0085	U
74-87-3	Chloromethane	0.042	0.050	0.042	0.026	U
75-01-4	Vinyl Chloride	0.024	0.025	0.024	0.012	U
106-99-0	1,3-Butadiene	0.042	0.050	0.042	0.0079	U
74-83-9	Bromomethane	0.022	0.025	0.022	0.0067	U
75-00-3	Chloroethane	0.022	0.025	0.022	0.0078	U
107-02-8	Acrolein	0.10	0.20	0.10	0.035	U
67-64-1	Acetone	0.53	2.5	0.53	0.23	U
75-69-4	Trichlorofluoromethane	0.021	0.050	0.021	0.0081	U
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0088	U
75-09-2	Methylene Chloride	0.042	0.10	0.042	0.0078	U
76-13-1	Trichlorotrifluoroethane	0.022	0.025	0.022	0.0081	U
156-60-5	trans-1,2-Dichloroethene	0.022	0.025	0.022	0.011	U
75-34-3	1,1-Dichloroethane	0.022	0.025	0.022	0.0082	U
1634-04-4	Methyl tert-Butyl Ether	0.022	0.025	0.022	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0072	U
67-66-3	Chloroform	0.043	0.10	0.043	0.0080	U
107-06-2	1,2-Dichloroethane	0.022	0.025	0.022	0.0083	U
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0090	U
71-43-2	Benzene	0.042	0.075	0.042	0.015	U
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.0071	U
78-87-5	1,2-Dichloropropane	0.022	0.025	0.022	0.0061	U
75-27-4	Bromodichloromethane	0.022	0.025	0.022	0.0058	U
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0077	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 2

Client: HazAir
Client Sample ID: Method Blank
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220817-MB

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
123-91-1	1,4-Dioxane	0.022	0.10	0.022	0.0087	U
10061-01-5	cis-1,3-Dichloropropene	0.021	0.050	0.021	0.0071	U
10061-02-6	trans-1,3-Dichloropropene	0.021	0.050	0.021	0.0048	U
79-00-5	1,1,2-Trichloroethane	0.021	0.10	0.021	0.0059	U
108-88-3	Toluene	0.021	0.10	0.043	0.012	J
124-48-1	Dibromochloromethane	0.021	0.025	0.021	0.0064	U
106-93-4	1,2-Dibromoethane	0.021	0.025	0.021	0.0067	U
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0086	U
108-90-7	Chlorobenzene	0.021	0.10	0.021	0.0097	U
100-41-4	Ethylbenzene	0.021	0.10	0.021	0.012	U
179601-23-1	m,p-Xylenes	0.043	0.10	0.043	0.024	U
100-42-5	Styrene	0.042	0.10	0.042	0.012	U
95-47-6	o-Xylene	0.021	0.10	0.021	0.013	U
79-34-5	1,1,1,2-Tetrachloroethane	0.021	0.025	0.021	0.0087	U
108-67-8	1,3,5-Trimethylbenzene	0.021	0.10	0.021	0.014	U
95-63-6	1,2,4-Trimethylbenzene	0.021	0.10	0.021	0.016	U
541-73-1	1,3-Dichlorobenzene	0.021	0.025	0.021	0.017	U
106-46-7	1,4-Dichlorobenzene	0.021	0.025	0.021	0.020	U
95-50-1	1,2-Dichlorobenzene	0.021	0.025	0.021	0.018	U
96-12-8	1,2-Dibromo-3-chloropropane	0.021	0.10	0.021	0.014	U
120-82-1	1,2,4-Trichlorobenzene	0.043	0.050	0.043	0.020	U
91-20-3	Naphthalene	0.041	0.10	0.041	0.022	U
87-68-3	Hexachlorobutadiene	0.021	0.10	0.021	0.013	U

U = This analyte was analyzed for but not detected at the specified detection limit.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 8/9 - 8/10/22
 Date(s) Received: 8/11/22
 Date(s) Analyzed: 8/16 - 8/17/22

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		% Recovered	% Recovered	% Recovered		
Method Blank	P220816-MB	94	97	106	70-130	
Method Blank	P220817-MB	96	99	100	70-130	
Lab Control Sample	P220816-LCS	94	97	109	70-130	
Lab Control Sample	P220817-LCS	97	98	103	70-130	
Duplicate Lab Control Sample	P220816-DLCS	94	96	106	70-130	
Duplicate Lab Control Sample	P220817-DLCS	96	98	100	70-130	
SVMW-17-15-2	P2203532-001	101	97	94	70-130	
BKGD-081022	P2203532-002	102	98	97	70-130	
DUPE-10-2	P2203532-003	98	96	93	70-130	
DUPE-5-2	P2203532-004	101	95	96	70-130	
SVMW-18-5-2	P2203532-005	103	98	98	70-130	
SVMW-18-10-2	P2203532-006	102	97	95	70-130	
SVMW-18-15-2	P2203532-007	98	96	98	70-130	
SVMW-19-5-2	P2203532-008	101	96	95	70-130	
SVMW-19-10-2	P2203532-009	103	98	92	70-130	
SVMW-19-15-2	P2203532-010	103	98	93	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220816-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	19.2	19.2	92	92	59-128	0	25	
74-87-3	Chloromethane	20.6	19.2	18.6	93	90	59-132	3	25	
75-01-4	Vinyl Chloride	20.8	21.4	21.4	103	103	64-127	0	25	
106-99-0	1,3-Butadiene	20.6	20.4	20.2	99	98	66-134	1	25	
74-83-9	Bromomethane	20.6	18.9	18.8	92	91	63-134	1	25	
75-00-3	Chloroethane	20.6	18.4	18.5	89	90	63-127	1	25	
107-02-8	Acrolein	41.6	36.2	36.1	87	87	62-126	0	25	
67-64-1	Acetone	102	84.1	84.1	82	82	58-128	0	25	
75-69-4	Trichlorofluoromethane	20.2	18.7	18.7	93	93	62-126	0	25	
75-35-4	1,1-Dichloroethene	21.0	19.5	19.5	93	93	61-133	0	25	
75-09-2	Methylene Chloride	20.8	17.7	17.8	85	86	62-115	1	25	
76-13-1	Trichlorotrifluoroethane	21.6	19.8	19.8	92	92	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	19.5	19.3	94	93	67-124	1	25	
75-34-3	1,1-Dichloroethane	21.4	18.9	19.0	88	89	68-126	1	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.6	18.6	90	90	66-126	0	25	
156-59-2	cis-1,2-Dichloroethene	20.6	19.4	19.3	94	94	70-121	0	25	
67-66-3	Chloroform	21.0	19.3	19.4	92	92	68-123	0	25	
107-06-2	1,2-Dichloroethane	21.0	18.7	18.8	89	90	65-128	1	25	
71-55-6	1,1,1-Trichloroethane	20.8	19.0	19.1	91	92	68-125	1	25	
71-43-2	Benzene	20.8	18.8	19.0	90	91	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	18.6	18.7	92	93	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	18.4	18.5	89	90	69-123	1	25	
75-27-4	Bromodichloromethane	20.8	18.7	18.7	90	90	72-128	0	25	
79-01-6	Trichloroethene	20.4	19.8	19.8	97	97	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220816-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/16/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
123-91-1	1,4-Dioxane	20.6	19.0	18.9	92	92	71-122	0	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	19.1	19.2	92	92	70-128	0	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	18.8	18.9	94	95	75-133	1	25	
79-00-5	1,1,2-Trichloroethane	20.8	19.0	19.1	91	92	73-119	1	25	
108-88-3	Toluene	20.6	17.7	17.8	86	86	66-119	0	25	
124-48-1	Dibromochloromethane	21.0	18.7	19.2	89	91	70-130	2	25	
106-93-4	1,2-Dibromoethane	20.8	19.4	19.4	93	93	74-122	0	25	
127-18-4	Tetrachloroethene	21.2	19.8	19.8	93	93	66-124	0	25	
108-90-7	Chlorobenzene	20.6	21.1	21.7	102	105	70-119	3	25	
100-41-4	Ethylbenzene	20.6	20.3	20.9	99	101	70-124	2	25	
179601-23-1	m,p-Xylenes	41.6	39.5	40.7	95	98	61-134	3	25	
100-42-5	Styrene	20.2	20.1	20.7	100	102	73-127	2	25	
95-47-6	o-Xylene	20.8	20.7	21.3	100	102	67-125	2	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	20.6	21.2	99	102	65-127	3	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	21.4	22.0	103	106	67-130	3	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	21.1	21.6	102	105	66-132	3	25	
541-73-1	1,3-Dichlorobenzene	20.8	21.6	22.1	104	106	65-130	2	25	
106-46-7	1,4-Dichlorobenzene	21.0	20.8	21.4	99	102	60-131	3	25	
95-50-1	1,2-Dichlorobenzene	21.0	20.8	21.3	99	101	63-129	2	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	39.1	39.9	97	99	64-143	2	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	40.4	41.2	96	98	55-142	2	25	
91-20-3	Naphthalene	21.0	19.8	20.2	94	96	57-138	2	25	
87-68-3	Hexachlorobutadiene	21.2	18.6	18.8	88	89	56-138	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220817-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD	RPD Limit	
75-71-8	Dichlorodifluoromethane (CFC 12)	20.8	19.7	19.8	95	95	59-128	0	25	
74-87-3	Chloromethane	20.6	20.1	20.1	98	98	59-132	0	25	
75-01-4	Vinyl Chloride	20.8	22.0	22.3	106	107	64-127	0.9	25	
106-99-0	1,3-Butadiene	20.6	20.5	20.9	100	101	66-134	1	25	
74-83-9	Bromomethane	20.6	19.7	19.6	96	95	63-134	1	25	
75-00-3	Chloroethane	20.6	19.6	19.7	95	96	63-127	1	25	
107-02-8	Acrolein	41.6	37.9	38.2	91	92	62-126	1	25	
67-64-1	Acetone	102	89.2	89.3	87	88	58-128	1	25	
75-69-4	Trichlorofluoromethane	20.2	18.8	18.9	93	94	62-126	1	25	
75-35-4	1,1-Dichloroethene	21.0	19.6	19.8	93	94	61-133	1	25	
75-09-2	Methylene Chloride	20.8	18.3	18.4	88	88	62-115	0	25	
76-13-1	Trichlorotrifluoroethane	21.6	19.6	19.6	91	91	66-126	0	25	
156-60-5	trans-1,2-Dichloroethene	20.8	19.8	19.8	95	95	67-124	0	25	
75-34-3	1,1-Dichloroethane	21.4	19.8	19.9	93	93	68-126	0	25	
1634-04-4	Methyl tert-Butyl Ether	20.6	18.9	19.1	92	93	66-126	1	25	
156-59-2	cis-1,2-Dichloroethene	20.6	19.6	19.7	95	96	70-121	1	25	
67-66-3	Chloroform	21.0	19.7	19.8	94	94	68-123	0	25	
107-06-2	1,2-Dichloroethane	21.0	19.3	19.4	92	92	65-128	0	25	
71-55-6	1,1,1-Trichloroethane	20.8	19.2	19.3	92	93	68-125	1	25	
71-43-2	Benzene	20.8	19.3	19.5	93	94	69-119	1	25	
56-23-5	Carbon Tetrachloride	20.2	18.6	18.7	92	93	68-132	1	25	
78-87-5	1,2-Dichloropropane	20.6	19.4	19.5	94	95	69-123	1	25	
75-27-4	Bromodichloromethane	20.8	19.3	19.4	93	93	72-128	0	25	
79-01-6	Trichloroethene	20.4	19.6	19.6	96	96	71-123	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 2

Client: HazAir
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: BFF

ALS Project ID: P2203532
 ALS Sample ID: P220817-DLCS

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 8/17/22
 Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount		Result		% Recovery		DOD		Data Qualifier
		LCS / DLCS µg/m ³	LCS µg/m ³	DLCS µg/m ³	LCS	DLCS	Acceptance Limits	RPD Limit		
123-91-1	1,4-Dioxane	20.6	19.0	19.2	92	93	71-122	1	25	
10061-01-5	cis-1,3-Dichloropropene	20.8	19.8	20.0	95	96	70-128	1	25	
10061-02-6	trans-1,3-Dichloropropene	20.0	19.4	19.7	97	99	75-133	2	25	
79-00-5	1,1,2-Trichloroethane	20.8	19.6	19.8	94	95	73-119	1	25	
108-88-3	Toluene	20.6	17.9	18.0	87	87	66-119	0	25	
124-48-1	Dibromochloromethane	21.0	19.0	19.1	90	91	70-130	1	25	
106-93-4	1,2-Dibromoethane	20.8	19.4	19.6	93	94	74-122	1	25	
127-18-4	Tetrachloroethene	21.2	19.6	19.5	92	92	66-124	0	25	
108-90-7	Chlorobenzene	20.6	20.6	21.1	100	102	70-119	2	25	
100-41-4	Ethylbenzene	20.6	19.9	20.4	97	99	70-124	2	25	
179601-23-1	m,p-Xylenes	41.6	38.8	39.7	93	95	61-134	2	25	
100-42-5	Styrene	20.2	19.0	19.5	94	97	73-127	3	25	
95-47-6	o-Xylene	20.8	20.1	20.6	97	99	67-125	2	25	
79-34-5	1,1,2,2-Tetrachloroethane	20.8	20.8	21.4	100	103	65-127	3	25	
108-67-8	1,3,5-Trimethylbenzene	20.8	20.8	21.4	100	103	67-130	3	25	
95-63-6	1,2,4-Trimethylbenzene	20.6	20.5	21.0	100	102	66-132	2	25	
541-73-1	1,3-Dichlorobenzene	20.8	20.7	21.3	100	102	65-130	2	25	
106-46-7	1,4-Dichlorobenzene	21.0	19.9	20.5	95	98	60-131	3	25	
95-50-1	1,2-Dichlorobenzene	21.0	20.0	20.5	95	98	63-129	3	25	
96-12-8	1,2-Dibromo-3-chloropropane	40.4	37.4	38.1	93	94	64-143	1	25	
120-82-1	1,2,4-Trichlorobenzene	42.0	38.9	39.5	93	94	55-142	1	25	
91-20-3	Naphthalene	21.0	18.8	19.1	90	91	57-138	1	25	
87-68-3	Hexachlorobutadiene	21.2	18.4	18.5	87	87	56-138	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Kyle Carrillo
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08162204.D
Date Analyzed: 8/16/22
Time Analyzed: 06:00

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220816-LCS	08162205.D	06:31
Duplicate Lab Control Sample	P220816-DLCS	08162206.D	07:01
SVMW-17-15-2	P2203532-001	08162228.D	21:03
BKGD-081022	P2203532-002	08162230.D	22:06
DUPE-5-2	P2203532-004	08162232.D	23:10
SVMW-18-5-2	P2203532-005	08162233.D	23:41
SVMW-18-10-2	P2203532-006	08162234.D	00:12

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Method Blank Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Kyle Carrillo
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Lab File ID: 08172204.D
Date Analyzed: 8/17/22
Time Analyzed: 05:57

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P220817-LCS	08172205.D	06:28
Duplicate Lab Control Sample	P220817-DLCS	08172206.D	06:59
DUPE-10-2	P2203532-003	08172208.D	08:41
SVMW-18-15-2	P2203532-007	08172215.D	13:57
SVMW-19-5-2	P2203532-008	08172216.D	14:28
SVMW-19-10-2	P2203532-009	08172217.D	15:00
SVMW-19-15-2	P2203532-010	08172218.D	15:46

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 08162202.D
 Date Analyzed: 8/16/22
 Time Analyzed: 04:58

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
	AREA	#	RT	#	AREA	#	RT	#			
24 Hour Standard	14446		9.57		66024		11.52		12053		15.86
Upper Limit	20224		9.90		92434		11.85		16874		16.19
Lower Limit	8668		9.24		39614		11.19		7232		15.53

Client Sample ID		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
01	Method Blank	14354		9.58		67269		11.53		11881		15.86
02	Lab Control Sample	13605		9.57		62563		11.52		11026		15.86
03	Duplicate Lab Control Sample	13152		9.57		60877		11.52		10433		15.86
04	SVMW-17-15-2	17197		9.57		80573		11.52		16107		15.86
05	BKGD-081022	16266		9.57		77046		11.52		15181		15.86
06	DUPE-5-2	15447		9.57		74719		11.53		14977		15.86
07	SVMW-18-5-2	17096		9.57		81449		11.53		15963		15.86
08	SVMW-18-10-2	17334		9.57		81713		11.53		16512		15.86
09			I		I		I		I		I	I
10			I		I		I		I		I	I
11			I		I		I		I		I	I
12			I		I		I		I		I	I
13			I		I		I		I		I	I
14			I		I		I		I		I	I
15			I		I		I		I		I	I
16			I		I		I		I		I	I
17			I		I		I		I		I	I
18			I		I		I		I		I	I
19			I		I		I		I		I	I
20			I		I		I		I		I	I

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: HazAir
Client Project ID: BFF

ALS Project ID: P2203532

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19
 Analyst: Kyle Carrillo
 Sample Type: 6.0 L Silonite Canister(s)
 Test Notes:

Lab File ID: 08172202.D
 Date Analyzed: 8/17/22
 Time Analyzed: 04:55

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)						
	AREA	#	RT	#	AREA	#	RT	#			
24 Hour Standard	13922		9.57		63740		11.52		11803		15.86
Upper Limit	19491		9.90		89236		11.85		16524		16.19
Lower Limit	8353		9.24		38244		11.19		7082		15.53

Client Sample ID		IS1 (BCM)	IS2 (DFB)	IS3 (CBZ)			
		AREA	RT	AREA	RT	AREA	RT
01	Method Blank	13848	9.58	64413	11.53	11617	15.86
02	Lab Control Sample	13112	9.57	60215	11.52	10893	15.86
03	Duplicate Lab Control Sample	12616	9.57	57944	11.52	10282	15.86
04	DUPE-10-2	14759	9.57	70735	11.53	13245	15.86
05	SVMW-18-15-2	15536	9.57	73584	11.52	14092	15.86
06	SVMW-19-5-2	15887	9.57	74799	11.52	14059	15.86
07	SVMW-19-10-2	15793	9.57	74864	11.52	14466	15.86
08	SVMW-19-15-2	17044	9.57	80358	11.52	15306	15.86
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
 AREA LOWER LIMIT = 60% of internal standard area
 RT UPPER LIMIT = 0.33 minutes of internal standard RT
 RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
 I = Internal standard not within the specified limits. See case narrative.

Appendix I
Data Quality Evaluation Report – Soil Vapor Monitoring
ST-106/SS-111
(Summer Sampling, Aug 8 – Aug 10, 2022)

Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	microgram(s) per cubic meter
%	percent
AFB	Air Force Base
ALS	ALS Environmental
DL	detection limit
DOD	Department of Defense
DOE	Department of Energy
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
LCS	laboratory control sample
LCS/D	laboratory control sample duplicate
LOD	limit of detection
LOQ	limit of quantitation
MRL	method reporting limit
PQL	project quantitation limit
QC	quality control
QSM	quality systems manual
RPD	relative percent difference
SDG	sample delivery group
UFP-QAPP	Uniform Federal Policy Quality Assurance Project Plan
VISLs	vapor intrusion screening levels
VOC	volatile organic compound

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I-1. DATA QUALITY EVALUATION REPORT – SOIL VAPOR MONITORING (AUGUST 2022)

I-1.1 Laboratory Data Quality Summary

This Data Quality Evaluation Report describes the findings of the data validation performed for the analysis of soil vapor samples collected during August 2022. This data was collected in support of the *Work Plan for Shallow Vapor Sampling, Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base (AFB), New Mexico (KAFB, 2021)*. Sampling and analysis for these events were conducted in accordance with the procedures and overall quality control (QC) and quality assurance protocols presented in the Work Plan and *Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) for Shallow Soil Vapor Sampling Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland AFB, New Mexico (KAFB, 2022)*.

Samples were collected from August 8 through August 10, in association with an investigation to determine the presence/absence of key indicators in areas of possible fuel constituent accumulation. This sampling period was associated with the ‘summer sampling’ event of this investigation. Sampling was conducted at eight soil vapor monitoring wells and included the collection of three field duplicate samples. Additionally, three ambient air samples were taken, one for each day of sampling.

Soil vapor samples were shipped to ALS Environmental, Simi Valley, California (ALS) for analysis. ALS maintains current Department of Defense (DOD) Environmental Laboratory Accreditation Program (ELAP) certification for the required analysis in support of this project. Sample analysis was performed in accordance with the U.S. Environmental Protection Agency (EPA) Methods TO-15 (SIM mode), TO-15, and TO-3. Daily ambient air samples were likewise shipped to ALS and assessed in accordance with the same methods.

Chemical analytical data for this event was reported by ALS in P2203495, P2203506, and P2203532 sample delivery groups (SDGs). Appendix C, Table 1 summarizes samples collected from the soil vapor monitoring wells and the associated field QC samples, collection date, laboratory SDG, and analytical method for the summer sampling event. All data underwent validation for completeness and compliance to project requirements. Analytical data validation was performed using the quality criteria specified in the following documents:

- Work Plan (KAFB, 2021) and UFP-QAPP (KAFB, 2022)
- Department of Defense (DOD) Department of Energy (DOE) Consolidated Quality Systems Manual (QSM) for Environmental Laboratories Version 5.4 (DOD DOE, 2021)

The following QC criteria were included in the validation process as applicable to the analytical method:

- Sample preservation, extraction, and analysis hold times
- Canister certification and pressure differences
- Canister certification blank
- Laboratory method blank
- Surrogate spike recoveries
- Laboratory control sample (LCS) and LCS duplicate (LCSD) recoveries
- Relative percent difference (RPD)
- Initial and continuing calibrations

- Internal standard recoveries
- Field duplicate sample precision

Analytical data were reviewed to evaluate precision, accuracy (bias), representativeness, comparability, completeness, and sensitivity as defined below:

- *Precision* is expressed as the RPD between the results of replicate sample analyses: sample duplicates and LCSDs. When analyte RPDs exceeded the acceptance criteria, the data were qualified accordingly.
- *Accuracy (bias)* is demonstrated by recovery of target analytes from fortified blank and sample matrices such as the LCD/LCSD sample. For organic methods, bias is also demonstrated through recovery of surrogates from each field and QC sample. A comparison was made from the recovery of target analytes from fortified samples to the acceptance criteria defined in the UFP-QAPP (KAFB, 2022). When the acceptance criteria were not available in the UFP-QAPP, results were compared with the laboratory in-house control limits. When these criteria were not met, the data were qualified accordingly. Bias may be indicated as high or low.
- *Representativeness* of the sample submitted for analysis was ensured by adherence to standard sampling techniques and standard analytical procedures.
- *Comparability* of sample results was ensured by use of approved sampling and analysis methods and comparison of sample results to historical sample data.
- *Completeness* of data was evaluated based on analytical and technical completeness of sampled wells. Technical completeness of data was used to assess overall project completeness and is expressed as a percentage of the ratio of the number of usable data result to the total number of analytical data results. Only rejected data (R-qualified) were considered not usable to achieve project objectives.
- *Sensitivity* is determined by the ability to achieve the established method-specific reporting limits in accordance with DOD QSM Version 5.4 (DOD DOE, 2021) requirements and includes establishing the detection limit (DL), limit of detection (LOD), and limit of quantitation (LOQ). For this project, the laboratory reported positive results to the DL and flagged with a “J” qualifier, signifying estimated data. Non-detect results were reported at the LOD with a “U” qualifier per the UFP-QAPP. Sensitivity was evaluated based on comparison of the sample reporting limits to the project screening levels.

The following sections present the EPA Stage 3 data validation findings for the summer soil vapor sample data. Appendix C, Table 2 presents the data qualification flags and reason codes to be applied to analytical data, if required.

I-2. DATA QUALITY FINDINGS

I-2.1. Sample Receipt and Analysis Hold Times (Reason Code HT)

The vapor samples were shipped via ground transportation to the ALS laboratory. No temperature preservation requirement is applicable to vapor samples. The 30-day sample hold time was evaluated by comparing the sample collection date to the sample analysis data. Sample analysis holding times were met for all samples for the summer sampling event.

I-2.2. Canister Certification and Laboratory Method Blanks (Reason Code CB/MB)

The soil vapor sample results were evaluated with respect to the canister certification blanks and laboratory method blanks prepared and analyzed for each analytical batch. All volatile organic compound (VOC) analytes were non-detect or less than one-half of the LOQ in the canister certification blank samples.

Bromomethane was detected in the method blank associated with service request P2203506. Likewise, toluene was detected in methods blanks associated with all three service requests (P2203506, P2203495, and P2203532). One associated compound (for bromomethane) has been qualified as “U” as the concentration was under five times the contamination value. This can be seen in Appendix C, Table 3. All other associated compounds exceed the five times the respective contamination value, therefore no further qualification is necessary.

I-2.3. Initial and Continuing Calibration Blanks (Reason Code (CB/CCB)

Initial and continuing calibration blank criteria were reviewed to ensure that the instruments were free of contamination prior to sample analysis. Calibration blank concentrations are considered acceptable when contaminant levels in the blank were less than one-half of the LOQ for target analytes and less than the LOQ for common laboratory contaminants. Initial and continuing calibration blank data were within control criteria for all sample analyses.

I-2.4. Surrogate Recoveries (Reason Code SURR)

Surrogate compounds are added to field and laboratory QC samples for organic analysis to evaluate the matrix effect and method performance on an individual sample basis. All surrogate compound recoveries for the soil vapor sample data were within method control criteria, therefore, no data was qualified.

I-2.5. Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries and Precision (Reason Code LCS/RPD)

The LCS is an aliquot of an analyte-free matrix spiked with target analytes that are prepared with each analytical batch for each analytical method. The recovery of target analytes from the LCS analysis is a measurement of method performance in an interference-free sample matrix. All LCS recoveries for the soil vapor samples were within method control limits, and RPD were acceptable.

I-2.6. Internal Standard Recoveries (Reason Code IS)

Internal standards are added to all samples including QC samples to monitor the instrumentation sensitivity and response during sample analysis. The internal standard area response and retention times

are monitored to ensure they are within the control criteria for the analytical method. All internal standard recoveries were within control limits for the summer sample data.

I-2.7. Initial and Continuing Calibration Verification (Reason Code CCV)

Instrument calibration is performed for all analyses in accordance with method requirements. The linear analytical range is established for each method by analysis of calibration standards prepared at increasing concentrations that cover the expected sample concentration range. The acceptability of the initial calibration is determined by the calculation of a percent relative standard deviation or coefficient.

The stability of the analytical system is monitored by analysis of continuing calibration standards at concentrations near the mid-point of the instrument calibration range. The percent difference values between the relative response factor in the initial calibration and the relative response factor in the continuing calibration are reviewed to ensure instrument calibration criteria are within method control limits. All initial and continuing calibration verifications met the method-specific control criteria for the summer soil vapor analytical data.

I-2.8. Trip Blanks for Volatile Organic Compounds (Reason Code TB)

Trip blank samples were not shipped with the summer soil vapor samples as they are not required per the UFP-QAPP. Trip blank canisters are not necessarily representative of batch contamination since each sample is contained within an individual Summa® canister.

I-2.9. Ambient Blanks

Ambient blank Summa® canisters were prepared using a flow controller set to 12 hours and placed adjacent to the work site throughout each day of sampling. Before any samples were taken, the valve on the ambient blank was opened in the morning and would only be shut when moved between sites. At the end of the day, the valve was permanently closed and the pressure and time recorded. The intent of the ambient blanks was to ascertain if any other environmental contamination was present when sampling and determine if there was any intrusion to the sampling train that could elevate/invalidate sample results.

During the summer sampling event there were several compounds that were positively identified in the ambient blanks that were also seen in associated samples. However, there was no indication of contamination in the sampling trains. This was determined by evaluating the data for elevated values in response to the ambient blank, then determining if other compounds exhibited a similar rise. Sources of ambient atmospheric contamination are not addressed in this investigation.

I-2.10. Field Duplicate Samples (Reason Code FD)

In accordance with the project UFP-QAPP requirements (KAFB, 2022), field duplicate samples were collected at a frequency of at least one field duplicate for every 10 samples collected (10%). For the summer sampling event, three field duplicate samples were collected in association with 24 soil vapor samples and analyzed for EPA TO-15SIM, TO-15, and TO-3. Field duplicate samples were collected at a frequency of 12.5% for the summer event.

For field duplicate samples, RPD was evaluated by calculating the RPD between the parent sample and the duplicate sample. The RPD was calculated using the following equation:

$$RPD = \frac{|S - D|}{\left[\frac{(S + D)}{2}\right]} \times 100$$

where S = ‘Sample Result’ and D = ‘Duplicate Result’

Acceptable precision control criteria are established at less than or equal to 50% for soil vapor samples. The RPD was calculated between pairs of field duplicate samples when both results were reported at or above the LOQ. The results for the soil vapor and the associated field duplicate samples are provided in Appendix C, Table 4. Forty-seven field samples and associated field duplicate results for several compounds were qualified “J” or “UJ” based on exceedance of the RPD criteria. Large field duplicate variations have historically been seen in site soil vapor concentrations, particularly for trace concentration results, and therefore the data are considered representative. See Appendix C, Table 3 for further details.

I-2.11. Qualified Sample Results Above Project Screening Levels

During the summer sampling event there were no exceedances of the project screening levels, whether qualified or unqualified.

I-2.12. Qualified Sample Results Above Vapor Intrusion Screening Levels (VISLs)

Results returned from the laboratory included several dozen analytes that did not have associated project screening limits. However, many of them have VISLs that, while not a project screening level, can still reveal important information. During the summer sampling event, acrolein exceeded their associated VISLs for four samples (SVMW-16-5-2, DUPE-5-2, SVMW-20-15-2, and SVMW-21-10-2).

I-2.13. Soil Vapor Results with LOQ/PQL/MRL Exceeding the Project Screening Level

When samples require dilution, all analyte reporting limits become elevated by the amount of the dilution, which potentially results in exceedances. During the summer sampling event, no soil vapor sample results were reported with LOQ/PQL/MRLs that exceeded the project screening level.

I-2.14. Soil Vapor Results with LOQ/PQL/MRL Exceeding Associated VISLs

When samples require dilution, all analyte reporting limits become elevated by the amount of the dilution, which potentially results in exceedances. During the summer sampling event, the LOQ/PQL/MRL for 1,2-dibromo 3-chloropropane exceeded the associated VISLs for all 30 samples (24 native, three field duplicates, and three ambient blanks). These are all ‘U’ flagged from the laboratory indicating there is no quantifiable amount of this compound present at the detection limit. In two cases (BKGD-080822 and BKGD-081022) the detection limit exceeds the VISL due to dilution, which means 1,2-dibromo 3-chloropropane could exist between the detection limit and the VISL. Because of this, these two results are flagged ‘UJ’.

I-2.15. Professional Judgement

The project chemist may use professional judgement during the data review process to apply validation qualifiers based on site-specific and project-specific knowledge, historical data, comparability of data, and analytical expertise. Professional judgement was not applied by the project chemist to qualify summer soil vapor data in addition to data qualified during validation.

I-3. COMPLETENESS

The following sections present a discussion of the analytical and technical completeness for the summer soil vapor analytical data.

I-3.1. Analytical Completeness

Analytical completeness is a quantitative measure of the number of unqualified data results compared to the total number of results expressed as a percentage, based on the target analytes qualified for exceedances of QC requirements from calibration, LCS, surrogate, method precision, and blank contamination results. Analytical completeness was calculated as follows:

$$\text{Percent Analytical Completeness} = \frac{\text{Number of Unqualified Results}}{\text{Total Number of Results}} \times 100$$

Overall analytical completeness for the summer sampling event was 95.1% (75 qualified analytes out of 1,531 analytes for field, field duplicate, and ambient samples) based on canister certification, method blank contamination, continuing calibration verification, and field duplicate RPD exceedance.

I-3.2. Technical Completeness

Technical completeness is a quantitative measure of the data usability based on the number of rejected data compared to the total number of sample results. The technical completeness calculation considers all data that are not rejected (R-qualified) to be usable data to achieve project objectives. The technical completeness was calculated as follows:

$$\text{Percent Technical Completeness} = \frac{\text{Number of Usable Results}}{\text{Total Number of Results}} \times 100$$

The project data quality objectives were achieved for the summer soil vapor sampling event. The technical completeness for the summer sampling was 100%. Technical completeness is provided in Appendix C Table 7.

I-3.3. Data Analysis Completeness

As a part of the data review process, chain-of-custody forms and project data deliverables are reviewed against the project requirements in the Work Plan (KAFB, 2021) to ensure compliance with the sampling plan and that analytical results were reported for all planned methods and samples. Data completeness for the soil vapor monitoring data deliverables was determined to be 100%. Level II analytical data packages are provided in Appendix G.

I-4. REPRESENTATIVENESS AND COMPARABILITY

Summer soil vapor sampling was conducted in accordance with the sampling and analysis protocols and standard operating procedures documented in the Work Plan (KAFB, 2021). Approved procedures were used to collect, document, and ship samples to the ALS laboratory, thus ensuring the samples collected were representative of the soil vapor monitoring wells.

The ALS laboratory maintains current DOD ELAP certification and adhered to the analytical methods documented in the project UFP-QAPP and DOD QSM 5.4 requirements to prepare and analyze samples and report the data. These certifications ensure the comparability of the analytical results between different samples and different sampling events.

The EPA Stage 3 validation was performed on 100% of the analytical data to verify that the laboratory complied with the project UFP-QAPP and method requirements. The QC results that exceeded method control criteria resulted in data qualification as presented in the previous sections. Based on a review of the completed sample collection logs, chain-of-custody forms, sample receipt forms, and laboratory data packages, the analytical data reported for the summer soil vapor sampling achieved the project data representativeness and comparability requirements.

I-5. SENSITIVITY

Data sensitivity for the summer soil vapor analytical data was achieved by complying with the analytical method guidelines specified in the project UFP-QAPP (KAFB, 2022). Project reporting limits are presented in the UFP-QAPP, Table 7 and Table 8. Non-detect analytes are reported at the LOD and flagged “U.” Detections of target analytes below the method LOQ are “J” flagged as estimated values per the project requirements.

Summer soil vapor samples required dilution during analysis as deemed necessary by the laboratory to bring elevated concentrations of analytes into the instrument calibration range for quantitation. Samples requiring dilution due to elevated analytes in the sample (target or non-target) resulted in elevated reporting limits for all analytes in the sample per standard analytical method protocol.

During the summer soil vapor sample analysis, no data was reported at elevated reporting limits unless associated with other elevated analytes in the sample matrix. Data qualified “J” and “UJ,” and data with elevated reporting limits are usable to achieve data quality objectives. Samples were analyzed in accordance with DOD QSM and EPA analytical methodology and 100% technical data completeness was achieved for the summer soil vapor data.

I-6. CONCLUSIONS

The analytical data reported for the summer soil vapor monitoring event have been reviewed for precision, accuracy (bias), representativeness, comparability, completeness, and sensitivity and verified for completeness and compliance. Data quality criteria exceedances were noted for canister certification, method blank contamination, continuing calibration verification exceedance, and field duplicate RPD exceedance. Data quality exceedances resulted in “UJ” and “J” qualified (non-detect and estimated) sample results. Estimated data are usable to achieve project objectives. All data are usable to achieve the project data quality objectives.

REFERENCES

- Department of Defense (DOD) and Department of Energy (DOE), 2021. Consolidated Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.4. October.
- KAFB, 2022. Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) for Shallow Soil Vapor Sampling Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland AFB, New Mexico. January.
- KAFB, 2021. Work Plan for Shallow Vapor Sampling Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base, New Mexico. May.
- NMED, 2021. Risk Assessment Guidance for Site Investigations and Remediation Volume I Soil Screening Guidance for Human Health Risk Assessments. November.

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Table I-1. Soil Vapor Sample Collection Summary, ST-106/SS-111, Summer Sampling

Sample Location ID	Field Sample ID	Sample Date	SDG	Analytical Parameter ^a	Comments
BKGD-080822	BKGD-080822	8/8/22	P2203495	VOC, TPH	AB
BKGD-080922	BKGD-080922	8/9/22	P2203506	VOC, TPH	AB
BKGD-081022	BKGD-081022	8/10/22	P2203532	VOC, TPH	AB
SVMW-16	SVMW-16-5-2	8/9/22	P2203506	VOC, TPH	--
SVMW-16	DUPE-5-2	8/10/22	P2203532	VOC, TPH	FD (SVMW-16-5-2)
SVMW-16	SVMW-16-10-2	8/9/22	P2203506	VOC, TPH	--
SVMW-16	SVMW-16-15-2	8/9/22	P2203506	VOC, TPH	--
SVMW-17	SVMW-17-5-2	8/9/22	P2203506	VOC, TPH	--
SVMW-17	SVMW-17-10-2	8/9/22	P2203506	VOC, TPH	--
SVMW-17	SVMW-17-15-2	8/9/22	P2203506	VOC, TPH	--
SVMW-18	SVMW-18-5-2	8/10/22	P2203532	VOC, TPH	--
SVMW-18	SVMW-18-10-2	8/10/22	P2203532	VOC, TPH	--
SVMW-18	SVMW-18-15-2	8/10/22	P2203532	VOC, TPH	--
SVMW-19	SVMW-19-5-2	8/10/22	P2203532	VOC, TPH	--
SVMW-19	SVMW-19-10-2	8/10/22	P2203532	VOC, TPH	--
SVMW-19	SVMW-19-15-2	8/10/22	P2203532	VOC, TPH	--
SVMW-20	SVMW-20-5-2	8/8/22	P2203495	VOC, TPH	--
SVMW-20	SVMW-20-10-2	8/8/22	P2203495	VOC, TPH	--
SVMW-20	SVMW-20-15-2	8/8/22	P2203495	VOC, TPH	--
SVMW-20	DUPE-15-2	8/9/22	P2203506	VOC, TPH	FD (SVMW-20-15-2)
SVMW-21	SVMW-21-5-2	8/9/22	P2203506	VOC, TPH	--
SVMW-21	SVMW-21-10-2	8/9/22	P2203506	VOC, TPH	--
SVMW-21	DUPE-10-2	8/10/22	P2203532	VOC, TPH	FD (SVMW-21-10-2)
SVMW-21	SVMW-21-15-2	8/9/22	P2203506	VOC, TPH	--
SVMW-22	SVMW-22-5-2	8/8/22	P2203495	VOC, TPH	--
SVMW-22	SVMW-22-10-2	8/8/22	P2203506	VOC, TPH	--
SVMW-22	SVMW-22-15-2	8/8/22	P2203506	VOC, TPH	--
SVMW-23	SVMW-23-5-2	8/8/22	P2203495	VOC, TPH	--
SVMW-23	SVMW-23-10-2	8/8/22	P2203495	VOC, TPH	--
SVMW-23	SVMW-23-15-2	8/8/22	P2203495	VOC, TPH	--

^a VOCs analyzed in accordance with Methods TO-15SIM and TO-15. TPH analyzed in accordance with Method TO-3.

-- = no comment

AB = ambient blank

FD = field duplicate

ID = identification

TPH = total petroleum hydrocarbon(s)

VOC = volatile organic compound(s)

Table I-2. Data Qualification Flags and Reason Codes

Data Qualification Flags for Data Validation	
Qualifier	Definition
	No Qualifier indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.
J	The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The analyte was analyzed for, but the presence <u>or</u> absence of the analyte has not been verified. Re-sampling and re-analysis may be necessary to confirm or deny the presence of the analyte. Results are rejected, and data are <u>unusable</u> for any purposes.
X	The sample results were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project QC criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team.
Reason Codes for Data Validation	
Reason Code	Description
CB/CCB	Calibration blank or continuing calibration blank outside of control limits
CCV	Calibration verification outside of control limits
FB	Field blank contamination
FD	Field duplicate sample results out of control criteria
ICS	Interference check sample
LOQ	Limit of Quantitation exceeds associated screening limit
LCS	Laboratory control sample recovery out of control criteria
MB	Method blank contamination
RPD	Relative percent difference outside of control criteria
SURR	Surrogate recovery outside of control limits

Table I-3. Qualified Sample Results, ST-106/SS-111, Summer Sampling

Well Location ID	Sample Name	SDG	Collection Method	Sample Type	Analyte	Data Qualifier	Validation Reason Code
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	1,2-Dichloroethane	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	1,2-Dichloroethane	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	1,3,5-Trimethylbenzene	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	1,3-Dichlorobenzene	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Acrolein	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Acrolein	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Bromomethane	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Bromomethane	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Chloroform	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Chloroform	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Ethylbenzene	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Ethylbenzene	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Hexane	UJ	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	m,p-Xylenes	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	m,p-Xylenes	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Methyl tert-Butyl Ether	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Methyl tert-Butyl Ether	UJ	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	n-Heptane	UJ	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	o-Xylene	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	o-Xylene	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Styrene	J	FD
SVMW-16	DUPE-5-2	P2203532	SUMMA	FD	Toluene	J	FD
SVMW-16	SVMW-16-5-2	P2203506	SUMMA	N	Toluene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	FD	1,1-Dichloroethane	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	N	1,1-Dichloroethane	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	1,2-Dichloroethane	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	1,4-Dichlorobenzene	UJ	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	N	1,4-Dichlorobenzene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	FD	Acetone	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Acetone	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Acrolein	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Acrolein	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Benzene	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Benzene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Bromodichloromethane	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Bromomethane	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Bromomethane	U	MB,FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Chloroform	J	FD

Table I-3. Qualified Sample Results, ST-106/SS-111, Summer Sampling (Continued, Page 2 of 3)

Well Location ID	Sample Name	SDG	Collection Method	Sample Type	Analyte	Data Qualifier	Validation Reason Code
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Chloroform	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	cis-1,2-Dichloroethene	UJ	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Dichlorodifluoromethane (CFC 12)	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Dichlorodifluoromethane (CFC 12)	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Dichloromethane (Methylene Chloride)	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Ethylbenzene	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Ethylbenzene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Hexane	UJ	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	m,p-Xylenes	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	m,p-Xylenes	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Methyl tert-Butyl Ether	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Methyl tert-Butyl Ether	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	o-Xylene	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	o-Xylene	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Styrene	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Tetrachloroethene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Tetrachloroethene	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Toluene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Toluene	J	FD
SVMW-20	SVMW-20-15-2	P2203495	SUMMA	N	Trichlorofluoromethane	J	FD
SVMW-20	DUPE-15-2	P2203506	SUMMA	FD	Trichlorofluoromethane	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	1,2-Dichloropropane	J	FD
SVMW-21	SVMW-21-10-2	P2203506	SUMMA	N	1,3-Dichlorobenzene	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	1,3-Dichlorobenzene	UJ	FD
SVMW-21	SVMW-21-10-2	P2203506	SUMMA	N	Acrolein	J	FD
SVMW-21	SVMW-21-10-2	P2203506	SUMMA	N	Benzene	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	Benzene	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	Bromomethane	J	FD
SVMW-21	SVMW-21-10-2	P2203506	SUMMA	N	Chloromethane	UJ	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	Chloromethane	J	FD
SVMW-21	SVMW-21-10-2	P2203506	SUMMA	N	Methyl tert-Butyl Ether	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	Methyl tert-Butyl Ether	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	Styrene	J	FD
SVMW-21	DUPE-10-2	P2203532	SUMMA	FD	Toluene	J	FD
SVMW-21	SVMW-21-10-2	P2203506	SUMMA	N	Toluene	J	FD

Table I-3. Qualified Sample Results, ST-106/SS-111, Summer Sampling (Concluded, Page 3 of 3)

Well Location ID	Sample Name	SDG	Collection Method	Sample Type	Analyte	Data Qualifier	Validation Reason Code
--	BKGD-080822	P2203495	SUMMA	A	1,2-Dibromo 3-Chloropropane	UJ	LOQ
--	BKGD-081022	P2203532	SUMMA	A	1,2-Dibromo 3-Chloropropane	UJ	LOQ

A = ambient

CCV = continuing calibration verification

FD = field duplicate

ID = identification

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

LOQ = Limit of Quantitation exceeds associated screening limit

MB = method blank

N = normal / native field sample

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table I-4-1. Ambient Blank Versus Sample Results, ST-106/SS-111, Summer Sampling – 8/8/22

Compound	BKGD-080822 (ambient) (µg/m³)	SVMW-20-5-2 (µg/m³)	SVMW-20-10-2 (µg/m³)	SVMW-20-15-2 (µg/m³)	SVMW-22-5-2 (µg/m³)	SVMW-22-10-2 (µg/m³)	SVMW-22-15-2 (µg/m³)	SVMW-23-5-2 (µg/m³)	SVMW-23-10-2 (µg/m³)	SVMW-23-15-2 (µg/m³)
1,1,1-Trichloroethane	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.023 J	0.02 J	0.049 U
1,1,2,2-Tetrachloroethane	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.034 U	0.033 U	0.031 J
1,1,2-Trichloroethane	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.034 U	0.033 U	0.049 U
1,1,2-Trichlorotrifluoroethane	0.37	0.4	0.42	0.42	0.37	0.37	0.41	0.4	0.42	0.44
1,1-Dichloroethane	0.099 U	0.068	0.054	0.05 J	0.066	0.045	0.095	0.068	0.066	0.11
1,1-Dichloroethene	0.099 U	0.034 U	0.034 U	0.035 U	0.036 U	0.034 U	0.033 U	0.036 U	0.035 U	0.051 U
1,2,4-Trichlorobenzene	0.19 U	0.057 J	0.067 U	0.068 U	0.07 U	0.1	0.049 J	0.037 J	0.1	0.099 U
1,2,4-Trimethylbenzene	1	0.34	0.38	0.35	0.340	0.38	0.4	0.4	0.43	0.51
1,2-Dibromo 3-Chloropropane	0.095 UJ	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.034 U	0.033 U	0.049 U
1,2-Dibromoethane	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.033 J	0.032 U	0.034 U	0.033 U	0.049 U
1,2-Dichlorobenzene	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.034 U	0.033 U	0.049 U
1,2-Dichloroethane	0.77	0.026 J	0.069	0.015 J	0.072	0.038 J	0.098	0.036 U	0.038 J	0.039 J
1,2-Dichloropropane	0.16	0.017 J	0.034 U	0.016 J	0.012 J	0.019 J	0.02 J	0.045	0.058	0.077
1,3,5-Trimethylbenzene	0.17 J	0.061 J	0.085 J	0.067 J	0.054 J	0.051 J	0.042 J	0.065 J	0.097 J	0.12 J
1,3-Butadiene	0.19 U	0.065 U	0.065 U	0.066 U	0.068 U	0.064 U	0.063 U	0.068 U	0.066 U	0.097 U
1,3-Dichlorobenzene	0.23	0.12	0.059	0.08	0.071	0.12	0.13	0.13	0.16	0.21
1,4-Dichlorobenzene	0.095 U	0.032 U	0.033 U	0.033 UJ	0.034 U	0.058	0.032 U	0.034 U	0.039 J	0.049 U
1,4-Dioxane	0.099 U	0.066 J	0.15 J	0.052 J	0.097 J	0.034 U	0.033 U	0.036 U	0.035 U	0.051 U
Acetone	73	14	9.8	9.4 J	66	11	16	8.5	11	11
Acrolein	0.62 J	1.3	0.86	0.87 J	2.2	1.5	1.8	0.44	0.79	0.27 J
Benzene	0.64	0.16	0.15	0.15 J	0.19	0.14	0.36	0.36	0.53	0.18
Bromodichloromethane	0.099 U	0.075	0.081	0.079 J	0.027 J	0.03 J	0.03 J	0.012 J	0.035 U	0.051 U
Bromomethane	0.12	0.086	0.05	0.095 J	0.074	0.079	0.062	0.041	0.083	0.07
Carbon Tetrachloride	0.47	0.14	0.16	0.16	0.18	0.23	0.21	0.11	0.13	0.19
Chlorobenzene	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.034 U	0.033 U	0.049 U
Chloroethane	0.041 J	0.16	0.033 J	0.035 J	0.044	0.019 J	0.027 J	0.036 U	0.018 J	0.051 U
Chloroform	0.076 J	1.2	1.4	1.5 J	0.37	0.28	0.36	0.11 J	0.17	0.41
Chloromethane	0.74	0.065 U	0.065 U	0.066 U	0.068 U	0.042 J	0.063 U	0.068 U	0.066 U	0.097 U
cis-1,2-Dichloroethene	0.095 U	0.032 U	0.033 U	0.033 UJ	0.034 U	0.019 J	0.032 U	0.034 U	0.033 U	0.049 U
cis-1,3-Dichloropropene	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.022 J	0.032 U	0.034 U	0.033 U	0.049 U
Cyclohexane	1.5 U	0.51 U	0.71 U	0.52 U	0.53 U	0.65 U	0.64 U	0.53 U	0.76 J	0.76 U
Dibromochloromethane	0.095 U	0.011 J	0.033 U	0.033 U	0.034 U	0.011 J	0.032 U	0.034 U	0.033 U	0.031 J
Dichlorodifluoromethane (CFC 12)	1.8	1.8	1.9	1.9 J	2.2	2.1	2.5	3.3	4	5.9
Dichloromethane (Methylene Chloride)	0.24 J	0.039 J	0.088 J	0.044 J	0.027 J	0.096 J	0.026 J	0.054 J	0.52	0.14 J
Ethylbenzene	1.2	0.19	0.12 J	0.16 J	0.12 J	0.22	0.23	0.27	0.42	0.4

Table I-4-1. Ambient Blank Versus Sample Results, ST-106/SS-111, Summer Sampling – 8/8/22, (Concluded, Page 2 of 2)

Compound	BKGD-080822 (ambient) (µg/m ³)	SVMW-20-5-2 (µg/m ³)	SVMW-20-10-2 (µg/m ³)	SVMW-20-15-2 (µg/m ³)	SVMW-22-5-2 (µg/m ³)	SVMW-22-10-2 (µg/m ³)	SVMW-22-15-2 (µg/m ³)	SVMW-23-5-2 (µg/m ³)	SVMW-23-10-2 (µg/m ³)	SVMW-23-15-2 (µg/m ³)
Hexachlorobutadiene	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.034 U	0.033 U	0.049 U
Hexane	1.4 U	0.48 U	0.67 U	0.49 UJ	0.5 U	0.61 U	0.6 U	0.5 U	0.49 U	0.72 U
m,p-Xylenes	1.7	0.32	0.28	0.28 J	0.25	0.36	0.34	0.41	0.68	0.61
Methyl tert-Butyl Ether	5.6	0.53	0.37	0.33 J	0.5	0.36	0.71	0.57	0.51	0.9
Naphthalene	0.37 J	0.69	0.72	0.28	0.68	0.55	0.42	0.46	0.47	0.34
n-Heptane	0.68 J	0.48 U	0.67 U	0.49 U	0.5 U	0.61 U	0.6 U	0.5 U	0.21 J	0.72 U
o-Xylene	0.94	0.28	0.26	0.18 J	0.19	0.23	0.21	0.28	0.39	0.4
Styrene	0.61	0.11 J	0.088 J	0.081 J	0.093 J	0.13 J	0.076 J	0.14 J	0.44	0.16 J
Tetrachloroethene	0.22	0.44	0.28	0.3 J	0.23	0.16	0.22	0.47	0.45	0.51
Toluene	2.4	0.33	0.37	0.38 J	0.34	0.34	0.42	0.54	3.1	0.83
TPH as Gasoline	17 J	8 J	6.4 J	7 J	7.4 J	5.2 J	4.4 J	7.5 J	7.3 J	12 J
trans-1,2-Dichloroethene	0.099 U	0.034 U	0.034 U	0.035 U	0.036 U	0.022 J	0.033 U	0.036 U	0.035 U	0.051 U
trans-1,3-Dichloropropene	0.095 U	0.032 U	0.033 U	0.033 U	0.034 U	0.057 J	0.032 U	0.034 U	0.033 U	0.049 U
Trichloroethene	0.095 U	0.015 J	0.028 J	0.033 U	0.029 J	0.029 J	0.012 J	0.034 U	0.018 J	0.049 U
Trichlorofluoromethane	0.88	1	1.1	1.1 J	1.2	1.2	1.4	3.1	3.4	4.6
Vinyl Chloride	0.11 U	0.037 U	0.037 U	0.038 U	0.039 U	0.037 U	0.036 U	0.039 U	0.038 U	0.055 U

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

µg/m³ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table I-4-2. Ambient Blank Versus Sample Results, ST-106/SS-111, Summer Sampling – 8/9/22

Compound	BKGD-080922 (ambient) ($\mu\text{g}/\text{m}^3$)	SVMW-16-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-16-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-16-15-2 ($\mu\text{g}/\text{m}^3$)	SVMW-17-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-17-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-17-15-2 ($\mu\text{g}/\text{m}^3$)	SVMW-21-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-21-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-21-15-2 ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	0.067 U	0.032 U	0.032 U	0.032 U	0.016 J	0.026 J	0.033 U	0.014 J	0.018 J	0.017 J
1,1,2,2-Tetrachloroethane	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.019 J	0.032 U	0.032 U	0.032 U
1,1,2-Trichloroethane	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
1,1,2-Trichlorotrifluoroethane	0.42	16	28	41	0.49	0.53	0.56	0.41	0.42	0.43
1,1-Dichloroethane	0.38	0.077	0.068	0.1	0.096	0.098	0.083	0.062	0.061	0.05
1,1-Dichloroethene	0.07 U	0.034 U	0.033 U	0.034 U	0.035 U	0.034 U	0.034 U	0.033 U	0.033 U	0.033 U
1,2,4-Trichlorobenzene	0.14 U	0.037 J	0.038 J	0.038 J	0.068 U	0.045 J	0.068 J	0.065 U	0.065 U	0.065 U
1,2,4-Trimethylbenzene	0.73	0.39	0.38	0.35	0.34	0.33	0.28	0.37	0.37	0.38
1,2-Dibromo 3-Chloropropane	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
1,2-Dibromoethane	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
1,2-Dichlorobenzene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
1,2-Dichloroethane	1.9	0.053 J	0.033 U	0.029 J	0.027 J	0.034 U	0.034 U	0.028 J	0.013 J	0.023 J
1,2-Dichloropropane	0.034 J	0.022 J	0.026 J	0.029 J	0.016 J	0.022 J	0.021 J	0.019 J	0.034 J	0.036 J
1,3,5-Trimethylbenzene	0.16 J	0.073 J	0.052 J	0.097 J	0.076 J	0.11 J	0.11 J	0.056 J	0.061 J	0.054 J
1,3-Butadiene	0.13 U	0.065 U	0.063 U	0.064 U	0.066 U	0.065 U	0.065 U	0.063 U	0.063 U	0.063 U
1,3-Dichlorobenzene	0.067 U	0.093 J	0.14	0.15	0.098	0.14	0.16	0.091	0.094 J	0.088
1,4-Dichlorobenzene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.035 J	0.033 U	0.032 U	0.032 U	0.032 U
1,4-Dioxane	0.07 U	0.034 U	0.033 U	0.034 U	0.035 U	0.034 U	0.034 J	0.054 J	0.13 J	0.033 U
Acetone	64	13	11	15	14	9.5	12	7.4	9.5	7.4
Acrolein	0.75	1.3 J	1.2	1.1	1.4	0.66	0.64	0.64	0.71 J	0.36
Benzene	0.6	0.19	0.098 J	0.29	0.1 J	0.15	0.14	0.15	0.25 J	0.15
Bromodichloromethane	0.07 U	0.081	0.38	0.71	0.13	0.3	0.2	0.13	0.16	0.22
Bromomethane	0.093	0.087 J	0.095	0.21	0.12	0.16	0.09	0.085	0.083	0.12
Carbon Tetrachloride	0.067 U	4.2	7.2	11	0.32	0.33	0.38	0.16	0.15	0.13
Chlorobenzene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
Chloroethane	0.087	0.034 U	0.018 J	0.027 J	0.025 J	0.018 J	0.034 U	0.038	0.021 J	0.033 U
Chloroform	0.068 J	0.27 J	1.1	2.3	0.44	0.92	0.92	1.6	1.7	1.6
Chloromethane	1.7	0.065 U	0.063 U	0.064 U	0.066 U	0.065 U	0.065 U	0.041 J	0.063 UJ	0.063 U
cis-1,2-Dichloroethene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
cis-1,3-Dichloropropene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
Cyclohexane	1.4 U	0.67 U	0.64 U	0.65 U	0.660 U	0.65 U	0.580 U	0.7 U	0.63 U	0.65 U
Dibromochloromethane	0.067 U	0.014 J	0.073	0.18	0.021 J	0.046	0.022 J	0.01 J	0.012 J	0.032 U
Dichlorodifluoromethane (CFC 12)	1.9	2.1	2.1	2.1	2.1	2.1	1.8	2.6	2.6	2.7
Dichloromethane (Methylene Chloride)	0.3 J	0.11 J	0.052 J	0.19	0.051 J	0.031 J	0.037 J	0.038 J	0.049 J	0.036 J
Ethylbenzene	0.78	0.22 J	0.22	0.29	0.18	0.25	0.23	0.22	0.23	0.2

Table I-4-2. Ambient Blank Versus Sample Results, ST-106/SS-111, Summer Sampling – 8/9/22 (Concluded, Page 2 of 2)

Compound	BKGD-080922 (ambient) (µg/m ³)	SVMW-16-5-2 (µg/m ³)	SVMW-16-10-2 (µg/m ³)	SVMW-16-15-2 (µg/m ³)	SVMW-17-5-2 (µg/m ³)	SVMW-17-10-2 (µg/m ³)	SVMW-17-15-2 (µg/m ³)	SVMW-21-5-2 (µg/m ³)	SVMW-21-10-2 (µg/m ³)	SVMW-21-15-2 (µg/m ³)
Hexachlorobutadiene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
Hexane	0.69 J	0.63 UJ	0.6 U	0.61 U	0.62 U	0.61 U	0.55 U	0.66 U	0.59 U	0.61 U
m,p-Xylenes	2	0.38 J	0.3	0.47	0.34	0.37	0.38	0.35	0.35	0.35
Methyl tert-Butyl Ether	3	0.59 J	0.55	0.86	0.72	0.74	0.096	0.45	0.43 J	0.4
Naphthalene	0.5	0.51	0.32	0.47	0.52	0.48	1.1	0.62	0.17	0.44
n-Heptane	0.97 J	0.63 UJ	0.6 U	0.61 U	0.62 U	0.61 U	0.55 U	0.66 U	0.59 U	0.61 U
o-Xylene	0.71	0.22 J	0.22	0.29	0.22	0.26	0.26	0.23	0.22	0.22
Styrene	1.7	0.098 J	0.071 J	0.14 J	0.1 J	0.094 J	0.11 J	0.081 J	0.078 J	0.072 J
Tetrachloroethene	0.31	0.21	0.26	0.32	0.16	0.2	0.29	2.7	2.4	1.7
Toluene	1.7	0.74 J	0.34	0.98	0.35	0.42	0.38	0.25	0.52 J	0.44
TPH as Gasoline	12 J	5.6 J	5.9 J	6 J	5.4 J	6.2 J	6.6 J	5.5 J	5.8 J	5.3 J
trans-1,2-Dichloroethene	0.048 J	0.034 U	0.033 U	0.034 U	0.035 U	0.034 U	0.034 U	0.033 U	0.033 U	0.033 U
trans-1,3-Dichloropropene	0.067 U	0.032 U	0.032 U	0.032 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.032 U
Trichloroethene	0.036 J	0.032 U	0.032 U	0.016 J	0.033 U	0.032 U	0.033 U	0.2	0.089	0.041
Trichlorofluoromethane	0.98	1.7	1.9	2.2	1.1	1.2	1.1	1.3	1.3	1.4
Vinyl Chloride	0.076 U	0.037 U	0.036 U	0.021 J	0.038 U	0.037 U	0.037 U	0.036 U	0.036 U	0.036 U

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

µg/m³ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise

Table I-4-3. Ambient Blank Versus Sample Results, ST-106/SS-111, Summer Sampling – 8/10/22

Compound	BKGD-081022 (ambient) ($\mu\text{g}/\text{m}^3$)	SVMW-18-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-18-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-18-15-2 ($\mu\text{g}/\text{m}^3$)	SVMW-19-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-19-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-19-15-2 ($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	0.094 U	0.015 J	0.014 J	0.015 J	0.11	0.35	0.41
1,1,2,2-Tetrachloroethane	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
1,1,2-Trichloroethane	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
1,1,2-Trichlorotrifluoroethane	0.38	0.41	0.41	0.4	0.4	0.43	0.4
1,1-Dichloroethane	0.14	0.051	0.073	0.052	0.046	0.066	0.12
1,1-Dichloroethene	0.098 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
1,2,4-Trichlorobenzene	0.19 U	0.065 U	0.031 J	0.064 U	0.064 U	0.065 U	0.064 U
1,2,4-Trimethylbenzene	0.3 J	0.34	0.28	0.34	0.34	0.33	0.28
1,2-Dibromo 3-Chloropropane	0.094 UJ	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
1,2-Dibromoethane	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
1,2-Dichlorobenzene	0.094 U	0.032 U	0.031 U	0.031 U	0.048	0.032 U	0.031 U
1,2-Dichloroethane	1.5	0.033 U	0.033 J	0.042	0.026 J	0.014 J	0.037 J
1,2-Dichloropropane	0.098 U	0.017 J	0.018 J	0.018 J	0.012 J	0.012 J	0.033 U
1,3,5-Trimethylbenzene	0.1 J	0.077 J	0.069 J	0.052 J	0.049 J	0.044 J	0.034 J
1,3-Butadiene	0.19 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.062 U
1,3-Dichlorobenzene	0.094 U	0.092	0.08	0.083	0.071	0.073	0.028 J
1,4-Dichlorobenzene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
1,4-Dioxane	0.098 U	0.06 J	0.37	0.034 J	0.017 J	0.11 J	0.033 U
Acetone	65	5	20	5.9	6.4	10	6.4
Acrolein	0.73 J	0.18 J	2.7	0.45	0.35	1.3	0.62
Benzene	0.49	0.088 J	0.2	0.12	0.064 J	0.063 J	0.065 J
Bromodichloromethane	0.098 U	0.026 J	0.039	0.052	0.014 J	0.034 J	0.054
Bromomethane	0.098 J	0.062	0.38	0.062	0.071	0.12	0.036 J
Carbon Tetrachloride	0.48	0.3	0.23	0.2	0.31	0.27	0.23
Chlorobenzene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
Chloroethane	0.065 J	0.033 U	0.2	0.012 J	0.015 J	0.032 J	0.033 U
Chloroform	0.051 J	0.089 J	0.19	0.29	0.046 J	0.14 J	0.22
Chloromethane	1.7	0.063 U	0.063 U	0.063 U	0.063 U	0.061 J	0.062 U
cis-1,2-Dichloroethene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
cis-1,3-Dichloropropene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
Cyclohexane	1.5 U	0.53 U	0.56 U	0.49 U	0.49 U	0.5 U	0.53 U
Dibromochloromethane	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
Dichlorodifluoromethane (CFC 12)	1.9	1.9	2.2	2.1	1.9	2.1	1.9
Dichloromethane (Methylene Chloride)	0.24 J	0.027 J	0.054 J	0.049 J	0.02 J	0.027 J	0.016 J
Ethylbenzene	0.51	0.17	0.17	0.19	0.13 J	0.14 J	0.055 J

Table I-4-3. Ambient Blank Versus Sample Results, ST-106/SS-111, Summer Sampling – 8/10/22 (Concluded, Page 2 of 2)

Compound	BKGD-081022 (ambient) ($\mu\text{g}/\text{m}^3$)	SVMW-18-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-18-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-18-15-2 ($\mu\text{g}/\text{m}^3$)	SVMW-19-5-2 ($\mu\text{g}/\text{m}^3$)	SVMW-19-10-2 ($\mu\text{g}/\text{m}^3$)	SVMW-19-15-2 ($\mu\text{g}/\text{m}^3$)
Hexachlorobutadiene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
Hexane	1.4 U	0.5 U	0.22 J	0.46 U	0.46 U	0.47 U	0.5 U
m,p-Xylenes	1.4	0.29	0.28	0.32	0.22	0.28	0.13 J
Methyl tert-Butyl Ether	0.098 U	0.049	0.56	0.46	0.35	0.53	0.82
Naphthalene	0.33 J	0.56	0.45	0.28	0.63	0.45	0.47
n-Heptane	0.41 J	0.5 U	0.52 U	0.46 U	0.46 U	0.47 U	0.5 U
o-Xylene	0.5	0.2	0.18	0.2	0.16	0.17	0.11 J
Styrene	0.95	0.074 J	0.25	0.078 J	0.067 J	0.06 J	0.051 J
Tetrachloroethene	0.055 J	0.079	0.067	0.091	0.098	0.069	0.079
Toluene	1.3	0.25	0.38	0.41	0.19	0.2	0.14 J
TPH as Gasoline	13 U	4.8 J	6 J	5.8 J	5.1 J	5.2 J	3.1 J
trans-1,2-Dichloroethene	0.44	0.02 J	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
trans-1,3-Dichloropropene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U
Trichloroethene	0.094 U	0.032 U	0.031 U	0.031 U	0.031 U	0.022 J	0.036 J
Trichlorofluoromethane	0.91	0.99	1	1	0.97	1	1
Vinyl Chloride	0.11 U	0.036 U	0.027 J	0.036 U	0.036 U	0.036 U	0.036 U

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

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Table I-5-1. Field Duplicate Sample Results, ST-106/SS-111, Summer Sampling, SVMW-16/DUPE-5

Well Location ID:	SVMW-16			SVMW-16			RPD
Field Sample ID:	SVMW-16-5-2			DUPE-5-2			
Sample Delivery Group:	P2203506			P2203532			
Sample Date:	8/9/2022			8/10/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	
1,1,1-Trichloroethane	0.032	--	0.014	0.031	--	0.013	3.2
1,1,2,2-Tetrachloroethane	0.032	--	0.013	0.031	--	0.013	3.2
1,1,2-Trichloroethane	0.032	--	0.0091	0.031	--	0.0086	3.2
1,1,2-Trichlorotrifluoroethane	16	--	0.012	14	--	0.012	13.3
1,1-Dichloroethane	0.077	--	0.013	0.074	--	0.012	4.0
1,1-Dichloroethene	0.034	--	0.014	0.032	--	0.013	6.1
1,2,4-Trichlorobenzene	0.037	--	0.031	0.032	--	0.029	14.5
1,2,4-Trimethylbenzene	0.39	--	0.025	0.57	--	0.023	37.5
1,2-Dibromo 3-Chloropropane	0.032	--	0.022	0.031	--	0.02	3.2
1,2-Dibromoethane	0.032	--	0.01	0.031	--	0.0098	3.2
1,2-Dichlorobenzene	0.032	--	0.028	0.031	--	0.026	3.2
1,2-Dichloroethane	0.053	J	0.013	0.11	J	0.012	70.0
1,2-Dichloropropane	0.022	--	0.0094	0.017	--	0.0089	25.6
1,3,5-Trimethylbenzene	0.073	--	0.022	0.24	J	0.02	106.7
1,3-Butadiene	0.065	--	0.012	0.061	--	0.012	6.3
1,3-Dichlorobenzene	0.093	J	0.026	0.031	--	0.025	100
1,4-Dichlorobenzene	0.032	--	0.031	0.031	--	0.029	3.2
1,4-Dioxane	0.034	--	0.013	0.052	--	0.013	41.7
Acetone	13	--	0.35	11	--	0.34	16.7
Acrolein	1.3	J	0.054	0.7	J	0.051	70
Benzene	0.19	--	0.023	0.16	--	0.022	17.1
Bromodichloromethane	0.081	--	0.0089	0.074	--	0.0085	9.0
Bromomethane	0.087	J	0.01	0.3	J	0.0098	110.1
Carbon Tetrachloride	4.2	--	0.011	3.5	--	0.01	18.2
Chlorobenzene	0.032	--	0.015	0.031	--	0.014	3.2
Chloroethane	0.034	--	0.012	0.028	--	0.011	19.4
Chloroform	0.27	J	0.012	0.23	J	0.012	76.9
Chloromethane	0.065	--	0.04	0.061	--	0.038	6.3
cis-1,2-Dichloroethene	0.032	--	0.011	0.031	--	0.011	3.2
cis-1,3-Dichloropropene	0.032	--	0.011	0.031	--	0.01	3.2
Cyclohexane	0.67	--	0.3	0.54	--	0.25	21.5
Dibromochloromethane	0.014	--	0.0099	0.011	--	0.0093	24.0
Dichlorodifluoromethane (CFC 12)	2.1	--	0.013	1.9	--	0.012	10.0
Dichloromethane (Methylene Chloride)	0.11	--	0.012	0.077	--	0.011	35.3
Ethylbenzene	0.22	J	0.018	0.37	J	0.018	50.8
Hexachlorobutadiene	0.032	--	0.02	0.031	--	0.019	3.2

Table I-5-1. Field Duplicate Sample Results, ST-106/SS-111, Summer Sampling, SVMW-16/DUPE-5 (Concluded, Page 2 of 2)

Well Location ID:	SVMW-16			SVMW-16			
Field Sample ID:	SVMW-16-5-2			DUPE-5-2			
Sample Delivery Group:	P2203506			P2203532			
Sample Date:	8/9/2022			8/10/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	
Hexane	0.63	UJ	0.22	0.27	--	0.18	80.0
m,p-Xylenes	0.38	J	0.037	0.95	J	0.035	85.7
Methyl tert-Butyl Ether	0.59	J	0.018	0.032	UJ	0.018	179.4
Naphthalene	0.51	--	0.034	0.84	--	0.032	48.9
n-Heptane	0.63	UJ	0.17	0.15	--	0.14	123.1
o-Xylene	0.22	J	0.02	0.52	J	0.019	81.1
Styrene	0.098	--	0.018	0.82	J	0.018	157.3
Tetrachloroethene	0.21	--	0.013	0.19	--	0.013	10.0
Toluene	0.74	J	0.018	1.6	J	0.018	73.5
TPH as Gasoline	5600	--	1400	4200	--	1300	28.6
trans-1,2-Dichloroethene	0.034	--	0.017	0.032	--	0.016	6.1
trans-1,3-Dichloropropene	0.032	--	0.0074	0.031	--	0.007	3.2
Trichloroethene	0.032	--	0.012	0.031	--	0.011	3.2
Trichlorofluoromethane	1.7	--	0.012	1.5	--	0.012	12.5
Vinyl Chloride	0.037	--	0.018	0.035	--	0.018	5.6

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LOD = limit of detection

RPD = relative percent difference

µg/m³ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

-- = Validation qualifier not assigned

Table I-5-2. Field Duplicate Sample Results, ST-106/SS-111, Summer Sampling, SVMW-20/DUPE-15

Well Location ID:	SVMW-20			SVMW-20			
Field Sample ID:	SVMW-20-15-2			DUPE-15-2			
Sample Delivery Group:	P2203495			P2203506			
Sample Date:	8/8/2022			8/9/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	
1,1,1-Trichloroethane	0.033	--	0.014	0.033	--	0.014	0
1,1,2,2-Tetrachloroethane	0.033	--	0.014	0.033	--	0.014	0
1,1,2-Trichloroethane	0.033	--	0.0093	0.033	--	0.0092	0
1,1,2-Trichlorotrifluoroethane	0.42	--	0.013	0.49	--	0.013	15.4
1,1-Dichloroethane	0.05	J	0.013	0.12	J	0.013	82.4
1,1-Dichloroethene	0.035	--	0.014	0.034	--	0.014	2.9
1,2,4-Trichlorobenzene	0.068	--	0.031	0.055	--	0.031	21.1
1,2,4-Trimethylbenzene	0.35	--	0.025	0.31	--	0.025	12.1
1,2-Dibromo 3-Chloropropane	0.033	--	0.022	0.033	--	0.022	0
1,2-Dibromoethane	0.033	--	0.011	0.02	--	0.01	49.1
1,2-Dichlorobenzene	0.033	--	0.028	0.033	--	0.028	0
1,2-Dichloroethane	0.015	--	0.013	0.082	J	0.013	138.1
1,2-Dichloropropane	0.016	--	0.0096	0.24	--	0.0095	175.0
1,3,5-Trimethylbenzene	0.067	--	0.022	0.11	--	0.022	48.9
1,3-Butadiene	0.066	--	0.012	0.066	--	0.012	0
1,3-Dichlorobenzene	0.08	--	0.027	0.16	--	0.027	66.7
1,4-Dichlorobenzene	0.033	UJ	0.031	0.058	J	0.031	140.2
1,4-Dioxane	0.052	--	0.014	0.11	--	0.014	71.6
Acetone	9.4	J	0.36	18	J	0.36	62.8
Acrolein	0.87	J	0.055	0.4	J	0.055	74.0
Benzene	0.15	J	0.024	0.27	J	0.023	57.1
Bromodichloromethane	0.079	J	0.0091	0.035	--	0.009	77.2
Bromomethane	0.095	J	0.011	0.034	UJ	0.01	94.6
Carbon Tetrachloride	0.16	--	0.011	0.22	--	0.011	31.6
Chlorobenzene	0.033	--	0.015	0.035	--	0.015	5.9
Chloroethane	0.035	--	0.012	0.027	--	0.012	25.9
Chloroform	1.5	J	0.013	0.41	J	0.012	114.1
Chloromethane	0.066	--	0.041	0.066	--	0.041	0
cis-1,2-Dichloroethene	0.033	UJ	0.011	0.015	--	0.011	75.0
cis-1,3-Dichloropropene	0.033	--	0.011	0.033	--	0.011	0
Cyclohexane	0.52	--	0.24	0.38	--	0.3	31.1
Dibromochloromethane	0.033	--	0.01	0.044	--	0.01	28.6
Dichlorodifluoromethane (CFC 12)	1.9	J	0.013	5.2	J	0.013	92.6
Dichloromethane (Methylene Chloride)	0.044	--	0.012	0.33	J	0.012	152.9
Ethylbenzene	0.16	J	0.019	0.52	J	0.019	105.9
Hexachlorobutadiene	0.033	--	0.02	0.033	--	0.02	0

Table I-5-2. Field Duplicate Sample Results, ST-106/SS-111, Summer Sampling, SVMW-20/DUPE-15 (Concluded, Page 2 of 2)

Well Location ID:	SVMW-20			SVMW-20			
Field Sample ID:	SVMW-20-15-2			DUPE-15-2			
Sample Delivery Group:	P2203495			P2203506			
Sample Date:	8/8/2022			8/9/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	
Hexane	0.49	UJ	0.17	0.23	--	0.22	72.2
m,p-Xylenes	0.28	J	0.038	0.91	J	0.037	105.9
Methyl tert-Butyl Ether	0.33	J	0.019	0.95	J	0.019	96.9
Naphthalene	0.28	--	0.035	0.45	--	0.034	46.6
n-Heptane	0.49	--	0.13	0.63	--	0.17	25.0
o-Xylene	0.18	J	0.02	0.56	J	0.02	102.7
Styrene	0.081	--	0.019	0.25	J	0.019	102.1
Tetrachloroethene	0.3	J	0.014	0.57	J	0.013	62.1
Toluene	0.38	J	0.019	2.4	J	0.019	145.3
TPH as Gasoline	7000	--	1400	7500	--	1400	6.9
trans-1,2-Dichloroethene	0.035	--	0.017	0.034	--	0.017	2.9
trans-1,3-Dichloropropene	0.033	--	0.0075	0.033	--	0.0075	0
Trichloroethene	0.033	--	0.012	0.03	--	0.012	9.5
Trichlorofluoromethane	1.1	J	0.013	4.6	J	0.013	122.8
Vinyl Chloride	0.038	--	0.019	0.037	--	0.019	2.7

ID = identification

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LOD = limit of detection

RPD = relative percent difference

µg/m³ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

-- = Validation qualifier not assigned

Table I-5-3. Field Duplicate Sample Results, ST-106/SS-111, Summer Sampling, SVMW-21/DUPE-10

Well Location ID: Field Sample ID: Sample Delivery Group: Sample Date: Sample Type:	SVMW-21			SVMW-21			RPD
	SVMW-21-10-2			DUPE-10-2			
	Normal / Native			Field Duplicate			
Analyte	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	Result (µg/m ³)	Validation Qualifier	LOD (µg/m ³)	
1,1,1-Trichloroethane	0.018	--	0.014	0.015	--	0.013	18.2
1,1,2,2-Tetrachloroethane	0.032	--	0.013	0.031	--	0.013	3.2
1,1,2-Trichloroethane	0.032	--	0.0089	0.031	--	0.0087	3.2
1,1,2-Trichlorotrifluoroethane	0.42	--	0.012	0.44	--	0.012	4.7
1,1-Dichloroethane	0.061	--	0.012	0.048	--	0.012	23.9
1,1-Dichloroethene	0.033	--	0.013	0.033	--	0.013	0
1,2,4-Trichlorobenzene	0.065	--	0.03	0.064	--	0.03	1.6
1,2,4-Trimethylbenzene	0.37	--	0.024	0.48	--	0.024	25.9
1,2-Dibromo 3-Chloropropane	0.032	--	0.021	0.031	--	0.021	3.2
1,2-Dibromoethane	0.032	--	0.01	0.031	--	0.0099	3.2
1,2-Dichlorobenzene	0.032	--	0.027	0.031	--	0.027	3.2
1,2-Dichloroethane	0.013	--	0.012	0.014	--	0.012	7.4
1,2-Dichloropropane	0.034	--	0.0092	0.093	J	0.009	92.9
1,3,5-Trimethylbenzene	0.061	--	0.021	0.055	--	0.021	10.3
1,3-Butadiene	0.063	--	0.012	0.062	--	0.012	1.6
1,3-Dichlorobenzene	0.094	J	0.026	0.031	UJ	0.025	100.8
1,4-Dichlorobenzene	0.032	--	0.03	0.03	--	0.03	6.5
1,4-Dioxane	0.13	--	0.013	0.023	--	0.013	139.9
Acetone	9.5	--	0.35	5.4	--	0.34	55.0
Acrolein	0.71	J	0.053	0.24	--	0.052	98.9
Benzene	0.25	J	0.023	0.14	J	0.022	56.4
Bromodichloromethane	0.16	--	0.0087	0.16	--	0.0086	0
Bromomethane	0.083	J	0.01	0.38	J	0.0099	128.3
Carbon Tetrachloride	0.15	--	0.011	0.14	--	0.011	6.9
Chlorobenzene	0.032	--	0.015	0.031	--	0.014	3.2
Chloroethane	0.021	--	0.012	0.033	--	0.012	44.4
Chloroform	1.7	--	0.012	1.7	--	0.012	0
Chloromethane	0.063	UJ	0.039	0.64	J	0.038	164.2
cis-1,2-Dichloroethene	0.032	--	0.011	0.031	--	0.011	3.2
cis-1,3-Dichloropropene	0.032	--	0.011	0.031	--	0.011	3.2
Cyclohexane	0.63	--	0.29	0.53	--	0.24	17.2
Dibromochloromethane	0.012	--	0.0096	0.012	--	0.0095	0
Dichlorodifluoromethane (CFC 12)	2.6	--	0.013	2.4	--	0.013	8
Dichloromethane (Methylene Chloride)	0.049	--	0.012	0.022	--	0.012	76.1
Ethylbenzene	0.23	--	0.018	0.21	--	0.018	9.1
Hexachlorobutadiene	0.032	--	0.02	0.031	--	0.019	3.2

Table I-5-3. Field Duplicate Sample Results, ST-106/SS-111, Summer Sampling, SVMW-21/DUPE-10 (Concluded, Page 2 of 2)

Well Location ID:	SVMW-21			SVMW-21			
Field Sample ID:	SVMW-21-10			DUPE-10-2			
Sample Delivery Group:	P2203506			P2203532			
Sample Date:	8/9/2022			8/10/2022			
Sample Type:	Normal / Native			Field Duplicate			
Analyte	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	Result (µg/m³)	Validation Qualifier	LOD (µg/m³)	
Hexane	0.59	--	0.21	0.24	--	0.18	84.3
m,p-Xylenes	0.35	--	0.036	0.47	--	0.036	29.3
Methyl tert-Butyl Ether	0.43	J	0.018	0.24	J	0.018	56.7
Naphthalene	0.17	--	0.033	0.21	--	0.033	21.1
n-Heptane	0.59	--	0.16	0.5	--	0.14	16.5
o-Xylene	0.22	--	0.02	0.21	--	0.019	4.7
Styrene	0.078	--	0.018	0.44	J	0.018	139.8
Tetrachloroethene	2.4	--	0.013	2.4	--	0.013	0
Toluene	0.52	J	0.018	1.2	J	0.018	183.4
TPH as Gasoline	5800	--	1400	4300	--	1300	29.7
trans-1,2-Dichloroethene	0.033	--	0.017	0.033	--	0.016	0
trans-1,3-Dichloropropene	0.032	--	0.0072	0.042	--	0.0071	27.0
Trichloroethene	0.089	--	0.012	0.083	--	0.011	7.0
Trichlorofluoromethane	1.3	--	0.012	1.4	--	0.012	7.4
Vinyl Chloride	0.036	--	0.018	0.036	--	0.018	0

ID = identification

LOD = limit of detection

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

RPD = relative percent difference.

µg/m³ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

-- = Validation qualifier not assigned.

Table I-6. Qualified Sample Results Above Project Screening Level, ST-106/SS-111, Summer Sampling

Well Location ID	Field Sample ID	Sample Date	Sample Type	Analytical Method	Analyte	Result (µg/m ³)	Validation Qualifier	Validation Reason Code	Project Screening Level
No qualified sample results exceeded the project screening levels for the summer sampling session.									

ID = identification

µg/m³ = microgram per cubic meter

Table I-7. Qualified Sample Results Above VISLs, ST-106/SS-111, Summer Sampling

Well Location ID	Field Sample ID	Sample Date	Sample Type	Analytical Method	Analyte	Result ($\mu\text{g}/\text{m}^3$)	Validation Qualifier	Validation Reason Code	VISL
SVMW-16	SVMW-16-5-2	8/9/2022	N	TO-15 SIM	Acrolein	1.30	J	FD	0.695 ^a
SVMW-16	DUPE-5-2	8/10/2022	FD	TO-15 SIM	Acrolein	0.70	J	FD	0.695 ^a
SVMW-20	SVMW-20-15-2	8/8/2022	N	TO-15 SIM	Acrolein	0.870	J	FD	0.695 ^a
SVMW-21	SVMW-21-10-2	8/9/2022	N	TO-15 SIM	Acrolein	0.710	J	FD	0.695 ^a

^aThe screening limit used for acrolein was Residential Noncancer from NMED Risk Assessment Guidance for Site Investigations and Remediation. Volume I Soil Screening Guidance for Human Health Risk Assessments. June 2022.

A = Ambient

FD = field duplicate

J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.

LOQ = Limit of Quantitation exceeds associated screening limit

N = normal / native field sample

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

VISL = vapor intrusion screening level (New Mexico Environment Department).

Table I-8. Soil Vapor Results with PQLs Exceeding the Project Screening Level, ST-106/SS-111, Summer Sampling

Sample Location ID	Field Sample ID	Sample Date	Sample Type	SDG	Analytical Method	Dilution Factor	Analyte	CAS #	Result Value (µg/m ³)	Result Unit (µg/m ³)	Final Qualifier	MDL	LOQ/PQL	VISL
No sample PQLs exceeded the project screening levels for the summer sampling session.														

ID = identification

MDL = method detection limit

LOQ/PQL = limit of quantitation / project quantitation limit (equivalent acronyms)

µg/m³ = microgram per cubic meter

VISL = vapor intrusion screening level (New Mexico Environment Department)

Table I-9. Soil Vapor Results with QLs Exceeding Associated VISLs, ST-106/SS-111, Summer Sampling

Sample Location ID	Field Sample ID	Sample Date	Sample Type	SDG	Analytical Method	Dilution Factor	Analyte	CAS #	Result Value	Result Unit	Final Qualifier	MDL	LOQ/PQL	VISL
SVMW-16	SVMW-16-5-2	8/9/2022	N	P2203506	TO-15 SIM	1.54	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.022	0.15	0.0563
SVMW-16	SVMW-16-10-2	8/9/2022	N	P2203506	TO-15 SIM	1.51	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-16	SVMW-16-15-2	8/9/2022	N	P2203506	TO-15 SIM	1.53	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-16	DUPE-5-2	8/10/2022	FD	P2203532	TO-15 SIM	1.46	1,2-Dibromo 3-Chloropropane	96-12-8	0.031	µg/m ³	U	0.02	0.15	0.0563
SVMW-17	SVMW-17-5-2	8/9/2022	N	P2203506	TO-15 SIM	1.57	1,2-Dibromo 3-Chloropropane	96-12-8	0.033	µg/m ³	U	0.022	0.16	0.0563
SVMW-17	SVMW-17-15-2	8/9/2022	N	P2203532	TO-15 SIM	1.55	1,2-Dibromo 3-Chloropropane	96-12-8	0.033	µg/m ³	U	0.022	0.15	0.0563
SVMW-17	SVMW-17-10-2	8/9/2022	N	P2203506	TO-15 SIM	1.54	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.022	0.16	0.0563
SVMW-18	SVMW-18-5-2	8/10/2022	N	P2203532	TO-15 SIM	1.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-18	SVMW-18-10-2	8/10/2022	N	P2203532	TO-15 SIM	1.49	1,2-Dibromo 3-Chloropropane	96-12-8	0.031	µg/m ³	U	0.021	0.15	0.0563
SVMW-18	SVMW-18-15-2	8/10/2022	N	P2203532	TO-15 SIM	1.49	1,2-Dibromo 3-Chloropropane	96-12-8	0.031	µg/m ³	U	0.021	0.15	0.0563
SVMW-19	SVMW-19-10-2	8/10/2022	N	P2203532	TO-15 SIM	1.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-19	SVMW-19-5-2	8/10/2022	N	P2203532	TO-15 SIM	1.49	1,2-Dibromo 3-Chloropropane	96-12-8	0.031	µg/m ³	U	0.021	0.15	0.0563
SVMW-19	SVMW-19-15-2	8/10/2022	N	P2203532	TO-15 SIM	1.48	1,2-Dibromo 3-Chloropropane	96-12-8	0.031	µg/m ³	U	0.021	0.15	0.0563
SVMW-20	SVMW-20-10-2	8/8/2022	N	P2203495	TO-15 SIM	1.55	1,2-Dibromo 3-Chloropropane	96-12-8	0.033	µg/m ³	U	0.022	0.16	0.0563
SVMW-20	SVMW-20-15-2	8/8/2022	N	P2203495	TO-15 SIM	1.57	1,2-Dibromo 3-Chloropropane	96-12-8	0.033	µg/m ³	U	0.022	0.16	0.0563
SVMW-20	DUPE-15-2	8/9/2022	N	P2203506	TO-15 SIM	1.56	1,2-Dibromo 3-Chloropropane	96-12-8	0.033	µg/m ³	U	0.022	0.16	0.0563
SVMW-20	SVMW-20-5-2	8/8/2022	N	P2203495	TO-15 SIM	1.54	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.022	0.15	0.0563
SVMW-21	SVMW-21-5-2	8/9/2022	N	P2203506	TO-15 SIM	1.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-21	SVMW-21-10-2	8/9/2022	N	2203506	TO-15 SIM	1.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-21	SVMW-21-15-2	8/9/2022	N	2203506	TO-15 SIM	1.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-21	DUPE-10-2	8/10/2022	N	P2203532	TO-15 SIM	1.48	1,2-Dibromo 3-Chloropropane	96-12-8	0.031	µg/m ³	U	0.021	0.15	0.0563
SVMW-22	SVMW-22-5-2	8/8/2022	N	P2203495	TO-15 SIM	1.62	1,2-Dibromo 3-Chloropropane	96-12-8	0.034	µg/m ³	U	0.023	0.16	0.0563
SVMW-22	SVMW-22-10-2	8/8/2022	N	P2203506	TO-15 SIM	1.53	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-22	SVMW-22-15-2	8/8/2022	N	P2203506	TO-15 SIM	1.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.032	µg/m ³	U	0.021	0.15	0.0563
SVMW-23	SVMW-23-15-2	8/8/2022	N	P2203495	TO-15 SIM	2.31	1,2-Dibromo 3-Chloropropane	96-12-8	0.049	µg/m ³	U	0.032	0.23	0.0563
SVMW-23	SVMW-23-5-2	8/8/2022	N	P2203495	TO-15 SIM	1.62	1,2-Dibromo 3-Chloropropane	96-12-8	0.034	µg/m ³	U	0.023	0.16	0.0563
SVMW-23	SVMW-23-10-2	8/8/2022	N	P2203495	TO-15 SIM	1.58	1,2-Dibromo 3-Chloropropane	96-12-8	0.033	µg/m ³	U	0.022	0.16	0.0563

Table I-9. Soil Vapor Results with PQLs Exceeding Associated VISLs, Summer Sampling (Continued, Page 2 of 2)

Sample Location ID	Field Sample ID	Sample Date	Sample Type	SDG	Analytical Method	Dilution Factor	Analyte	CAS #	Result Value	Result Unit	Final Qualifier	MDL	LOQ/PQL	VISL
SVMW-21	BKGD-080822	8/8/2022	A	P2203495	TO-15 SIM	4.5	1,2-Dibromo 3-Chloropropane	96-12-8	0.095	µg/m ³	UJ	0.063	0.45	0.0563
SVMW-21	BKGD-081022	8/10/2022	A	P2203532	TO-15 SIM	4.47	1,2-Dibromo 3-Chloropropane	96-12-8	0.094	µg/m ³	UJ	0.063	0.45	0.0563
SVMW-21	BKGD-080922	8/9/2022	A	P2203506	TO-15 SIM	3.17	1,2-Dibromo 3-Chloropropane	96-12-8	0.067	µg/m ³	UJ	0.044	0.39	0.0563

A = Ambient
 CAS # = Chemical Abstract Services (number)
 FD = field duplicate
 ID = identification
 J = The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated, although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
 LOQ = Limit of Quantitation exceeds associated screening limit
 LOQ/PQL = limit of quantitation / project quantitation limit (equivalent acronyms)
 MDL = method detection limit
 N = normal / native field sample
 SDG = sample delivery group
 U = The analyte was analyzed for but was not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.
 µg/m³ = microgram per cubic meter
 UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
 VISL = vapor intrusion screening level (New Mexico Environment Department)

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Table I-10. Technical Data Completeness, ST-106/SS-111, Summer Sampling

Analytical Parameter	Field / Field Duplicate Sample Analytes	Qualified Analytes	Percent Technical Completeness^a
VOCs (TO-15 SIM and TO-15)	1,531	75	100

^a Percent technical completeness includes analytes qualified as estimated data. No data were rejected.

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SVMW-16 VOLUMES

Borehole Diameter	5' sample pipe volume (inner)**	15' sample pipe volume (inner)**
3.5 in	3.534 in ³	9.425 in ³
0.292 ft	0.002045 ft ³	0.005454 ft ³
	57.92 mL	154.46 mL
Sand Pack Thicknesses	0.05792 L	0.15446 L
6 in (5', 10')		
12 in (15')	5' sand pack volume 6"	15' sand pack volume 12"
	57.727 in ³	115.454 in ³
Sample Pipe OD	0.033407 ft ³	0.066813 ft ³
0.375 in	945.97 mL	1891.95 mL
0.03125 ft	0.94597 L	1.89195 L
Sample Pipe ID	10' sample pipe volume (inner)**	
0.25 in	6.480 in ³	
0.02083 ft	0.00375 ft ³	
	106.19 mL	
Sample pipe volume (outer) per 6"	0.10619 L	
0.6627 in ³	10' sand pack volume 6"	
0.0003835 ft ³	57.727 in ³	
10.86 mL	0.033407 ft ³	
0.01086 L	945.97 mL	
	0.94597 L	

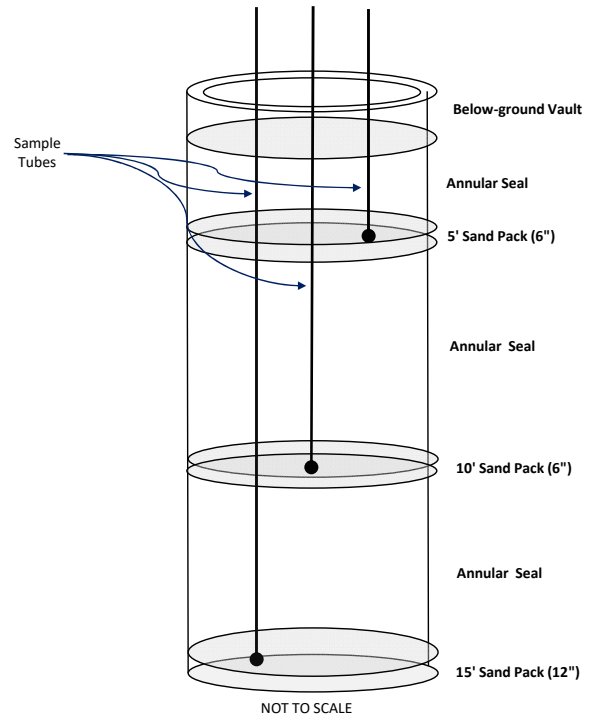
NOTES and Conversions:

1 in³ = 0.0163871 L = 16.3871 mL
 1 ft³ = 28.3168 L = 28,316.8 mL

* 6" worth of outer sample tube volume to be subtracted from sand pack volume for 5' (2 volumes) and 10' (1 volume) sand packs to account for space taken up by sample tube passing through the sand pack.

** sample tube length includes a 12" pigtail extending above ground surface, thereby adding 12" length to the pipe volume (inner) calculations.

Conceptual Well Schematic



1WV/3WV Calculation

	1WV*	1WV*	3WV	3WV
5' Purge volume =	982.18 mL	0.03469 ft ³	2946.529 mL	0.104055 ft ³
10' Purge volume =	1041.31 mL	0.03677 ft ³	3123.918 mL	0.110319 ft ³
15' Purge volume =	2046.41 mL	0.07227 ft ³	6139.231 mL	0.216803 ft ³

3WV Purge Time **

	@ 450 mL/min		@ .5		@ 500	
			SCFM	mL/min	SCFM	mL/min
6.54784145	5' Sampling Interval	3WV Total Purge Time**	0.208	5.8931 min		
6.942040424	10' Sampling Interval	3WV Total Purge Time**	0.221	6.2478 min		
13.64273454	15' Sampling Interval	3WV Total Purge Time**	0.434	12.278 min		

NOTES:

*1 Purge volume = (sand pack volume) + (sample tube (inner) volume) - (any tube (outer) volumes that pass through the sand pack of that level).

** Using maximum calculated turbulence-free flow of 0.5 SCFM

