Soil Vapor Monitoring Report – Fourth Quarter 2024 City of South San Francisco Municipal Services Building and Social Hall 33 Arroyo Drive South San Francisco, California

## City of South San Francisco 400 Grand Avenue | South San Francisco, California 94080

April 23, 2025 | Project No. 403151011



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS







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### **1** INTRODUCTION

Ninyo & Moore has prepared this Soil Vapor Monitoring Report for the City of South San Francisco (City), relating to the property located at 33 Arroyo Drive, California (Site, Figure 1). In accordance with our recommendations from the May 17, 2024 Soil Vapor Monitoring Report – Second Quarter 2024, Ninyo & Moore conducted additional soil vapor sampling using standard soil vapor sampling procedures from the California Department of Toxic Substance Control (DTSC) guidance document *Advisory Active Soil Gas Investigations* (DTSC, 2015) to assess seasonal and temporal variability to confirm consistency in the results. The activities summarized in this report were performed in accordance with Ninyo & Moore's September 23, 2024 Proposal for Additional Soil Vapor Sampling and Reporting.

### 2 BACKGROUND

#### 2.1 Site Description

The Site is located at 33 Arroyo Drive in South San Francisco, San Mateo County, California (Figure 1). It is situated on one parcel totaling approximately 1.87 acres of land designated by San Mateo County Assessor's Parcel Number 010400270. The Site is developed with the City of South San Francisco's (SSF) Municipal Services Building, which is occupied by the SSF Fire Department Station 63 (Figure 2). The exterior of the building consists of an asphalt parking area on the northeastern end of the building, parking areas on the northwestern exterior of the building, and access to the parking garage and fire department area on the southwestern end of the building.

#### 2.2 Site Geology

In general, the soils observed beneath the Site during the Phase II Environmental Site Assessment (ESA) conducted on March 17, 2022 are primarily silty sand to approximately 5.5-feet below ground surface (bgs), which is the maximum depth explored. Two of the borings were also observed to contain a 1-ft interval of clayey sand and/or sandy silt at 4 feet bgs.

### 2.3 Previous Work

According to a Phase I ESA conducted by Ninyo & Moore, the Site has most recently been occupied by the South San Francisco Municipal Services Building and Social Hall (Ninyo & Moore, 2021). Available records indicated that a 2,500-gallon diesel underground storage tank (UST) was removed in 1998 from the exterior lot on the south end of the building, and there is an existing 2,000-gallon diesel above ground storage tank (AST) on the south end of the building

(Ninyo & Moore, 2021). The Site is also adjacent to the former My Cleaners dry cleaning facility located at 1053 El Camino Real, South San Francisco. The former My Cleaners is considered a recognized environmental condition (REC) due to the reported release of dry-cleaning compounds into the subsurface. Based on the findings of the Phase I ESA, Ninyo & Moore recommended conducting a sub-slab soil vapor assessment inside the building as well as beneath the parking garage to assess potential vapor migration issues associated with the former southeast-adjoining My Cleaners facility.

Ninyo and Moore conducted a Phase II ESA in 2022 (Ninyo & Moore, 2022), collecting soil samples from four soil borings, installing four soil vapor wells (SV-1 through SV-4) to 5-feet bgs and collecting soil vapor samples. Based on the soil analytical results and visual observations during the field sampling, shallow Site soils do not appear to be impacted with volatile organic compounds (VOCs). Results from the soil vapor wells indicated that the concentration of cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE) and vinyl chloride in soil vapor probe SV-2 were above their respective San Francisco Bay Regional Water Quality Control Board (RWQCB) Tier 1 and Residential Environmental Screening Levels (ESLs; Ninyo & Moore, 2022). SV-2 is located directly north and adjacent to the former My Cleaners dry cleaning facility. Ninyo and Moore recommended additional soil vapor sampling to validate the exceedances.

On September 21, 2023, due to continued presence of water impacting vapor wells SV-2 and SV-3, Ninyo & Moore oversaw the destruction of these vapor wells, performed by VTS Drilling, LLC of Hayward, California, a C-57 licensed driller. Following the destruction of soil vapor wells SV-2 and SV-3, sub slab Vapor Pins<sup>®</sup> (SSV-2 and SSV-3) were installed approximately 1-ft away from the former soil vapor well locations, SV-2 and SV-3, respectively (Figure 2).

Additional soil vapor sampling was performed on September 29 and April 3, 2024 to evaluate potential contamination to shallow soil vapor and fill data gaps from the previous soil vapor sampling results at the Site. Results of the April 2024 soil vapor sampling, were:

- Benzene was reported at 9.3 micrograms per cubic meter (µg/m3) in vapor probe SV-4, which exceeds the 3.2 µg/m3 Residential ESL and is below the 14 µg/m3 Commercial ESL. The detection is also below State Water Resources Control Board (SWRCB) Low-Threat Underground Storage Tank Case Closure Policy (LTCP) criteria for residential use with no bioattenuation zone.
- Tetrachloroethene (PCE) was detected at 4.9 μg/m3 in SV-1, 7.9 μg/m3 in SSV-2, and 48 μg/m3 in SSV-3. The concentration detected in SSV-3 exceeds the Residential ESL of 15 μg/m3 but not the Commercial ESL of 67 μg/m3.

Select soil vapor data from previous sampling events are graphically presented on Figure 3.

### **3 SOIL VAPOR SAMPLING ACTIVITIES**

To evaluate potential seasonal and temporal variability to confirm consistency in the results, Ninyo & Moore conducted additional soil vapor sampling. On November 20, 2024, we collected soil vapor samples from the two soil vapor wells (SV-1 and SV-4) and two sub-slab soil vapor pins (SSV-2 and SSV-3) using laboratory-supplied sampling materials. Soil vapor sampling forms are presented in Appendix A.

### 3.1 Sampling Procedures

The soil vapor wells and pins were sampled according to standard soil vapor sampling procedures and the DTSC soil vapor investigation *Advisory* (DTSC, 2015), as described below.

- Vapor Sampling Equipment and Manifold: A stainless-steel sample-train was constructed, with a 1-liter stainless-steel Summa® sample canister connected by a stainless-steel sample manifold. For each soil vapor sample, the sample train was connected to the soil vapor probe tubing. The manifolds, filters, gauges, flow controllers and Summa® canisters were supplied by a state-certified laboratory. A new manifold was used for each soil vapor sampling. The flow controller was pre-set by the laboratory to a 150-milliliters-per-minute (mL/min) flow-rate.
- Shut-In Test: After connecting the Summa® canister and sample manifolds to the Teflon tubing, the Swagelok® ball valve was closed during shut-in test. Using a syringe to create a vacuum and then closed to start the shut-in test. At the onset of the shut-in test the initial vacuum and time was recorded on field notes. The shut-in test continued for approximately 2 to 5 minutes. If the vacuum pressure remained constant for the duration of the shut-in test, the test was considered successful (leak free). If the vacuum pressure changed, the shut-in test was discontinued, the manifold fittings were double checked and tightened, and the shut-in test was repeated until the vacuum pressure remained constant.
- Leak Detection: Leaks in the sampling system could cause the dilution of analytical samples with ambient air. The leak-detection compound helium was used to evaluate whether leaks are present in the sampling equipment. With the exception of the tubing connections and sampling port, all of the manifold connections were successfully leak tested prior to sampling; therefore, only the tubing connections and sampling port could be possible sources of leakage. A shroud enclosed the sample train and helium gas was pumped into the shroud for the duration of sample collection in order to test for sample-train leaks and the well-head integrity. The helium was maintained at a concentration of at least 20 percent (%) within the shroud. The shroud helium-concentrations were documented on field datasheets allowing for calculation of the magnitude of atmospheric leakage if needed. The RWQCB and the DTSC allow for a maximum 5% leakage of ambient air into a sample container before the results are considered to be compromised. For example, with 20% helium maintained within the shroud, any helium detection over 1% in the sample indicates the sample may be compromised.
- **Purge Volume Vapor Probes:** Following the shut-in test, the tubing and filter-pack void space volume were purged of three volumes of vapor.
- **Purging:** Prior to sample collection, purging of the air within the manifold and tubing was performed in order to collect samples representative of the subsurface soil vapor conditions. Purging was conducted using either a Gillian Gilair pump or a syringe at a consistent flow

rate of 150 mL/min. Purge volume was monitored either by counting the number of syringe pulls or by reading the volume purged on the electric pump.

- **Sample Collection:** Subsequent to purging, the purge valve was closed and the sample canister valve opened to begin sample collection. The sampling was monitored by change in pressure. The sampling start time, initial sample canister vacuum, end time, and final vacuum were recorded on soil vapor sampling data sheets. Sample canister valves were closed when the remaining vacuum was approximately -5 in. Hg and prior to reaching 0 in. Hg, which would indicate that no vacuum remained in the canister.
- **Sample Handling:** Upon collection, each sample was labeled with the sample identification, date and time of collection, and analytical method requested. This information was also recorded on a chain of custody supplied by the laboratory. Samples were delivered to a state-certified analytical laboratory the day after sample collection.
- **Sample Identification:** Soil vapor probe samples were identified with letters SV (to denote soil vapor probe), and SSV (to denote sub-slab soil vapor probe) followed by a unique number for each probe.

### 3.2 Laboratory Analyses

Soil vapor samples were submitted to McCampbell Analytical, Inc. (MAI), a California-certified analytical laboratory. The laboratory analytical report is presented in Appendix B. The soil vapor samples were analyzed for VOCs using United States Environmental Protection Agency (US EPA) Method TO-15 and for fixed gas oxygen and tracer gas helium ASTM Method D 1946.

### 4 SOIL VAPOR SAMPLING RESULTS

Soil vapor analytical results are presented in Tables 1 and 2. Soil vapor results were compared to RWQCB Residential and Commercial ESLs for Subslab/Soil Vapor, and gasoline constituent results were also compared to the SWRCB LTCP criteria. Current select soil vapor data exceeding ESLs are graphically shown on Figure 4. The laboratory analytical report is provided in Appendix B, and a discussion of the analytical results is presented below.

### 4.1 Volatile Organic Compounds

During the November 20, 2024 soil vapor sampling event, twelve VOCs were detected above laboratory reporting limits (RLs). A detailed list of VOC detections is below:

- Bromomethane, carbon disulfide, cyclohexane, dichlorodifluoromethane, ethylbenzene, styrene, toluene, TCE, 1,2,4-trimethylbenzene, and total xylenes were detected at concentrations below their respective residential ESLs, if established.
- Benzene was detected at 7.8 μg/m<sup>3</sup> in the SV-4 sample, which exceeds the 3.2 μg/m<sup>3</sup> Residential ESL and is below the 14 μg/m<sup>3</sup> Commercial ESL. The detection is also below SWRCB LTCP criteria for residential or commercial use with no bioattenuation zone. Benzene was not detected in any other soil vapor samples collected in November 2024.

PCE was detected at 7.7, 89, 190 and 5.1 μg/m<sup>3</sup> in SV-1, SSV-2, SSV-3 and SV-4, respectively. The concentrations detected in SSV-2 and SSV-3 exceed both the Residential ESL of 15 μg/m<sup>3</sup> and the Commercial ESL of 67 μg/m<sup>3</sup>.

### 4.2 Leak Detection Agent

No helium was detected at or above the laboratory report limit in any soil vapor samples collected this event.

All soil vapor analytical results are considered valid.

### 4.3 Fixed Gases

Oxygen as a fixed gas was reported at 35% for all soil vapor samples collected this event. These concentrations exceed atmospheric oxygen levels and are considered anomalous.

### 5 CONCLUSIONS

Ninyo & Moore conducted additional soil vapor sampling on November 20, 2024 to evaluate potential contamination to shallow soil vapor and soil vapor concentration seasonal variability at the Site. Based on the results of the November 2024 soil vapor sampling, Ninyo & Moore presents the following conclusions:

• Benzene was detected in only one sample (soil vapor well SV-4), at a concentration that exceeded the Residential ESL, but is below the Commercial ESL. Current concentrations are consistent with concentrations detected in April 2024.

As noted in the Phase II ESA, the benzene exceedances may be related to a petroleum fuel release from the former UST located on the south side of the Site. Therefore, the benzene concentrations were also compared to the SWRCB LTCP. The detections are below the residential LTCP criteria. Based on these comparisons to the LTCP criteria, the benzene concentrations detected in Site soil vapor are unlikely to present a significant vapor intrusion risk to the current or future Site building occupants.

 PCE concentrations exceeded both the Residential and Commercial ESLs in SSV-2 and SSV-3, and have increased compared to concentrations from April 2024. Concentrations in SSV-2 appear to be fluctuating, and concentrations from SSV-3, are increasing.

The source of the PCE concentrations is likely the adjacent My Cleaners, which is an open case listed on the SWRCB GeoTracker database (Case No. 559210).

 As noted above, the fixed gas oxygen concentrations are anomalous. It is possible that remedial activities at the adjacent My Cleaners site may be affecting sub-slab and soil vapor conditions.

### 6 **RECOMMENDATIONS**

Ninyo & Moore recommends submitting this data to the San Mateo County Groundwater Protection Program (GPP) to assist in their evaluation of the adjacent My Cleaners open case under their oversight, especially as that site is undergoing remediation. If the City decides to redevelop the Site, we recommend meeting with the GPP to discuss the redevelopment plans and environmental data to develop a strategy to complete the redevelopment while protecting human health and the environment. Ninyo & Moore also recommends conducting additional soil vapor monitoring in April or May 2025 to continue to monitor VOC and oxygen concentrations; in particular at SSV-2 and SSV-3 to further assess PCE trends.

### 7 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in Site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-Site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the Site. The testing and analyses have been conducted by an independent laboratory that is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed Site conditions. It should be understood that the conditions of a Site could change with time as a result of natural processes or the activities of man at the Site or nearby Sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

### 8 **REFERENCES**

- Cal EPA / RWQCB / DTSC, 2015. Advisory, Active Soil Gas Investigations; California Environmental Protection Agency / Regional Water Quality Control Board/ California Department of Toxic Substance Control; dated July.
- California State Water Resources Control Board (SWRCB), 2012. Low-Threat Underground Storage Tank Case Closure Policy. Effective August 17, 2012.
- Ninyo & Moore, 2018. Phase II Environmental Site Assessment and Geophysical Survey Report, 1 Chestnut Avenue, 1010 El Camino Real, 33 Arroyo Drive and 81 Arroyo Drive Properties, South San Francisco, California. Dated January 15.
- Ninyo & Moore, 2021. Phase I Environmental Site Assessment, Municipal Services Building, South San Francisco, California. Dated April 20.
- Ninyo & Moore, 2022. Phase II Environmental Site Assessment, 33 Arroyo Drive, South San Francisco, California. Dated November 19.
- San Francisco Bay Area Regional Water Quality Control Board (RWQCB), 2019. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board. Dated February.



Table 1 –	Soil Vapor	Analytical	Results	- VOCs																											
Sample ID	Sample Date	Depth (feet bgs)	Acetone	Acrylonitrile	Benzene	Bromomethane	2-Butanone (MEK)	Carbon Disulfide	Chloroform	Chloromethane	Cyclohexane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Dichlorodifluoromethane	Ethanol	Ethylbenzene	4-Ethyltoluene	Heptane	Hexane	Methylene Chloride	4-Methyl-2-pentanone (MIBK)	Styrene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Xylenes, Total	Others VOCs
																		µg/m³													
SV-1	3/21/2022	5.0	ND<60	ND<1.1	4.3	6.8	ND<15	6.4	3.4	3.1	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	19	4.2	ND<21	ND<18	ND<8.8	2.8	ND<2.2	5.4	44	ND<2.8	17	8.3	ND<0.26	74	ND
SV-1	7/19/2022	5.0	ND<60	ND<1.1	ND<1.6	60	ND<15	ND<1.6	ND<2.5	7.5	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	ND<2.2	7.4 B	ND<1.9	ND<2.8	ND<2.5	ND<2.5	ND<0.26	ND<2.2	ND
SV-1	5/17/2023	5.0	ND<60	ND<1.1	ND<1.6	120	ND<15	ND<1.6	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	ND<2.2	ND<3.5	ND<1.9	ND<2.8	ND<2.5	ND<2.5	ND<0.26	ND<2.2	ND
SV-1	9/29/2023	5.0	ND<60	ND<1.1	ND<1.6	33	ND<15	ND<1.6	ND<2.5	1.7	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	ND<2.2	6.5	ND<1.9	ND<2.8	ND<2.5	ND<2.5	ND<0.26	ND<2.2	ND
SV-1	4/3/2024	5.0	ND<61	ND<1.1	ND<1.6	11	ND<15	ND<1.6	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<96	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.9	ND<2.1	ND<2.2	4.9	ND<1.9	ND<2.8	ND<2.5	ND<2.5	ND<0.26	ND<2.2	ND
SV-1	11/20/2024	5.0	ND<60	ND<1.1	ND<1.6	2.7	ND<15	ND<1.6	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	ND<2.2	7.7	ND<1.9	ND<2.8	ND<2.5	ND<2.5	ND<0.26	<4.4	ND
SV-2	3/21/2022	5.0	130	ND<1.1	25	ND<1.9	35	12	ND<2.5	ND<1.0	28	6.7	510	140	ND<2.5	ND<95	16	6.1	27	28	ND<8.8	8.7	ND<2.2	ND<3.5	35	17	22	9.8	74	70	ND
SV-2	7/19/2022	5.0												N	ot sampled o	lue to high b	ack pressure	during purgi	ng												ND
SV-2	5/17/2023	5.0						ſ	ſ					N	ot sampled c	lue to high b	ack pressure	during purgi	ng				1								ND
SSV-2	9/29/2023	sub-slab	ND<60	ND<1.1	ND<1.6	ND<1.9	ND<15	ND<1.6	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	180	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	ND<2.2	72	10	12	ND<2.5	ND<2.5	ND<0.26	7	ND
SSV-2	4/3/2024	sub-slab	ND<61	ND<1.1	ND<1.6	ND<1.9	ND<15	ND<1.6	ND<2.6	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.6	160	ND<2.2	ND<2.6	ND<21	ND<18	15	ND<2.1	ND<2.2	7.9	ND<1.9	ND<2.9	ND<2.6	ND<2.6	ND<0.27	ND<2.2	ND
SSV-2	11/20/2024	sub-slab	ND<60	ND<1.1	ND<1.6	ND<1.9	ND<15	ND<1.6	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	2.5	ND<95	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	2.4	89	ND<1.9	13	ND<2.5	ND<2.5	ND<0.26	7.3	ND
SV-3	3/21/2022	5.0												N	ot sampled c	lue to high b	ack pressure	during purgi	ng												ND
SV-3	7/19/2022	5.0												N	ot sampled c	lue to high b	ack pressure	during purgi	ng												ND
SV-3	5/17/2023	5.0													ot sampled c	iue to nign b	ack pressure	auring purgi							07	07		ND -0.5	ND -0.00		ND
SSV-3	9/29/2023	sub-slab	ND<60	ND<1.1	ND<1.6	ND<1.9	ND<15	ND<1.6	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.8	ND<2.1	ND<2.2	34	3.7	6.7	ND<2.5	ND<2.5	ND<0.26	ND<2.2	ND
SSV-3	4/3/2024	SUD-SIAD	ND<62	ND<1.1	ND<1.7	ND<2.0	ND<16	ND<1.7	ND<2.6	ND<1.0	ND<19	ND<2.1	2.4	ND<2.1	ND<2.6	150	ND<2.3	ND<2.6	ND<22	ND<19	ND<9.1	ND<2.2	ND<2.3	48	ND<2.0	9.2	ND<2.6	ND<2.6	ND<0.27	ND<2.3	ND
55V-3	11/20/2024	SUD-SIAD	ND<01	ND<1.1	ND<1.0	ND<1.9	ND<15	ND<1.0	ND<2.5	ND<1.0	ND<18	ND<2.0	ND<2.0	ND<2.0	2.0	ND<96	ND<2.2	ND<2.5	ND<21	ND<18	ND<8.9	ND<2.1	ND<2.2	190	ND<1.9	13	ND<2.5	ND<2.5	ND<0.20	ND<4.5	ND
SV-4	3/21/2022	5.0	// ND 200	0.0	15	2.3		10	ND<2.5	ND<1.0	ND<10	ND<2.0		ND<2.0	ND<2.5	ND<95	19		00	41		ND<2.1		ND<3.5	40		10	0.2	ND<0.26	70	ND
SV-4	F/19/2022	5.0			77	ND<1.9		3.0 ND <1.6	ND<2.5		00		ND<2.0		ND<2.5		13	ND<2.5		29 ND<19		ND<2.1		1.1 B	20		14	7.9 ND <2.5	ND<0.26	22	
SV-4	0/20/2022	5.0			1.1	00			ND<2.5						ND<2.5		1.2	ND<2.5							5.5		0.4 10		ND<0.20	23	
SV-4	9/29/2023	5.0			11	17		ND<1.0	ND<2.5	ND<1.0			ND<2.0	ND<2.0	ND<2.5	ND 407	12	2.9		ND<10		ND<2.1	ND<2.2	ND<3.5	1.1	ND<2.8	10	ND<2.5	ND<0.26	44	ND
SV-4	4/3/2024	5.0			9.3	25		ND<1.0	ND<2.5	ND<1.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<97	6	ND<2.5				ND<2.1	ND<2.2	ND<3.6	3.4	ND<2.8	8.4	ND<2.5	ND<0.26	24	ND
SV-4	Critorio	5.0	ND<00	ND<1.1	7.0	4.0	ND<15	1.0	ND<2.5	ND<1.0	40	ND<2.0	ND<2.0	ND<2.0	ND<2.5	ND<95	5.0	ND<2.5	ND<21	ND< 10	ND<0.0	ND<2.1	ND<2.2	5.1	3.1	ND<2.8	11	ND<2.5	ND<0.26	23	ND
	1		1 100 000	NE	2.2	170	170.000	NE	4.1	2 100	NE	2 400	280	2 800	NE	NE	27	NE	NE	NE	24	100.000	21,000	15	10,000	16	NE	NE	0.22	2 500	Various
Commorpiel E	-		4 500 000		J.Z	720	720.000		4.1	12 000		2,400	1 200	2,000			160				410	440.000	120.000	67	44.000	100		NE	5.2	15 000	Various
			4,500,000		14		130,000			13,000 NE	NE	10,000	1,200	12,000	NE	NE	1 400/2 000				410	440,000	130,000		44,000			NE	5.Z	15,000	Vallous
LICP Residen	liai/Commercial		INE	INE	85/280	NE	INE	INE	INE	INE	INE	NE	INE	NE	INE	INE	1,100/3,600	) NE	INE	INE	INE	INE	INE	INE	INE	INE	INE	INE	INE	INE	INE

Notes:

VOCs - volatile organic compous analyzed using United States Environmental Protection Agency Method TO-15

ID - identification

bgs - below ground surface

µg/m<sup>3</sup> - micrograms per cubic meter

ND<X - not detected at or above the laboratory reporting limit X

B - analyte detected in the associated Method Blank at a concentration greater than 1/10 the reported sample result

--- not analyzed

ESL - San Francisco Bay Regional Water Control Board (RWQCB) environmental screening level

LTCP - State Water Resources Control Board (SWRCB) Low-Threat Underground Storage Tank Case Closure Policy

NE - screening level not established

<sup>1</sup> = RWQCB Subslab/Soil Gas ESL, Vapor Intrusion: Human Health Risk Levels (Table SG-1), Residential, Cancer risk /non-cancer hazard, 2019 (Rev.2). Most conservative value shown.

<sup>2</sup> = RWQCB Subslab/Soil Gas ESL, Vapor Intrusion: Human Health Risk Levels (Table SG-1), Commercial, Cancer risk /non-cancer hazard, 2019 (Rev.2). Most conservative value shown.

<sup>3</sup> = SWRCB LTCP, 2012. Petroleum Vapor Intrusion to Indoor Air, Scenario 4 with no bioattenuation zone, residential/commercial

Results in Bold equal or exceed ESLs

Table 2 – Soil Vapor Analytical Results - Fixed Gases										
Sample ID	Sample Date	Depth (feet bgs)	Helium	Oxygen						
			9	6						
SV-1	3/21/2022	5.0	ND<0.050	6.4						
SV-1	7/19/2022	5.0	ND<0.050	5.0						
SV-1	5/17/2023	5.0	ND<0.050	3.4						
SV-1	9/29/2023	5.0	ND<0.050	6.6						
SV-1	4/3/2024	5.0	ND<0.050	4.1						
SV-1	11/20/2024	5.0	ND<0.050	35						
SV-2	3/21/2022	5.0	ND<0.050	1.1						
SV-2	7/19/2022	5.0	Not sampled due to high ba	ack pressure during purging						
SV-2	5/17/2023	5.0	Not sampled due to high ba	ack pressure during purging						
SSV-2	9/29/2023	sub-slab	ND<0.050	19						
SSV-2	4/3/2024	sub-slab	0.13	28						
SSV-2	11/20/2024	sub-slab	ND<0.050	35						
SV-3	3/21/2022	5.0	Not sampled due to high ba	ack pressure during purging						
SV-3	7/19/2022	5.0	Not sampled due to high ba	ack pressure during purging						
SV-3	5/17/2023	5.0	Not sampled due to high ba	ack pressure during purging						
SSV-3	9/29/2023	sub-slab	ND<0.050	0.58						
SSV-3	4/3/2024	sub-slab	ND<0.052	15						
SSV-3	11/20/2024	sub-slab	ND<0.051	35						
SV-4	3/21/2022	5.0	ND<0.050	0.98						
SV-4	7/19/2022	5.0	ND<0.050	0.77						
SV-4	5/17/2023	5.0	ND<0.050	0.44						
SV-4	9/29/2023	5.0	ND<0.050	19						
SV-4	4/3/2024	5.0	ND<0.051	0.9						
SV-4	11/20/2024	5.0	ND<0.050	35						

Notes:

Fixed gases analyzed using ASTM D 1946

ID - identification

bgs - below grou surface

% - percent

ND<X - not detected at or above the laboratory reporting limit X





403151011 I 04/25



403151011.dwg 01/15/2025 AEK

403151011 I 04/25



403151011.dwg 01/15/2025 AEK

DR SAMPLING REPORT - FOURTH QUARTER 2024 33 ARROYO DRIVE SOUTH SAN FRANCISCO, CALIFORNIA 403151011 I 04/25





01/15/2025 AEK 403151011.dwg

403151011 I 04/25

# **APPENDIX A**

Soil Vapor Sampling Sheets

Ninyo & Moore | 33 Arroyo Drive, South San Francisco, California | 403151011 | April 23, 2025



### SOIL VAPOR SAMPLING DATA SHEET

Client:	Ci	y of	Sou	the So	F	Date: //	20/24	2	Personnel: Z	-75				
Project	t No.:	43	031510	11		Weather: Low Clauds /Rainy								
Project	Name:	S	SFI	NS8		Ambient Temp (°F): 58								
Site Lo	ocation:	3	3 kin	no Da	ie Salhst	Ambient	Ambient Barometric Pressure (inHg):							
ID	:		51-1			Calcultions								
يع Dej	pth of Pro	be (ft.)		5	e. Tubing Len	gth (ft.):		7	j. Tubing Vol. =	m				
etai	Probe Dia	meter (in	.):	0.15	f. Conversion	Factor $[(a/2)^2 * 617]$ :			k. Sand Pack Vo	m				
b. H	Boring Di	ameter (i	n.):	2.25	g. Conversion	5. Conversion Factor $[(b/2)^2 * 617]$ :				l. Dry Bent. Vol = $(d * g * i)$				
Ď c. S	Sand Pack	Height (	ft.):	12	h. Sand Porosi	Sand Porosity (%):				me = (j + k + l)	518 m			
d. I	d. Dry Bentonite Height (ft.): 12 i. Bentonite P						prosity (%):			3-Purge Volumes =				
S Pre	e-Purge ch	eck for p	resence o	fmeasur	able water: /	Vo nate	r							
Ho Lea	ak Testing	g Compou	und:	Helice	พา		Leak Tes	sting Mete	er (if applicable):	MGD RO	02			
Pre-Purge Leak check using Helium Leak Detector (if applicable): % Helium Shroud Concentration:									%					
Kacaum Shut In Test (1.5 minutes): Start Time						1739	E	End Time:	9744	Duration (min.)	5			
Pre		1-111 1 0.51	(1-5 mm	1105).	Start inHg:	-21.5	I	End inHg:	-21.5	Pass or Fail:	Pass			
$\frac{g_{\rm H}}{g_{\rm H}} = \frac{g_{\rm L}}{2} \frac{g_{\rm L}}{g_{\rm H}} = \frac{g_{\rm L}}{g_{\rm L}} = g_{\rm$					Duplicate ID:		_		Sample Date:	4				
la Can	Canister ID: 1975-262				Canister ID:				COA Serial #: 316 - 145		50			
s Initi	Initial Canister Vaccum (inHg) -29				Initial Canister	· Vaccum (in	nHg)		COA Flow Rate	(ml/min.)	150			
B Pur	Purge Method: Purge Purg					te (ml/min.)	A bi	5	Calculated Dura	tion of Purge:	10.5			
JII Star	Start Purge Time: 0723				End Purge Tin	ne:	07.	33	Actual Duration	of Purge:	11			
Tim	ne Caniste	er Openeo	1:	0747	Initial Canister Vaccum (inHg)			-29	Initial Helium % in Shroud		22.3			
ling It	nterval	Time	Canister	Vaccum	Measured Helium % in Shroud		Interval	Time	Canister Vaccum	Vaccum Measured Hel				
onito	2 min	0790	(ini	1g)			35 min.		(inHg)	Shrou	a			
W 4	4 min.	0751	-/	2	210	2	40 min							
6 Cas	5 min.		2	٤	~1.0	/ 0	45 min.							
8 acer	8 min.						50 min.							
	0 min.						55 min.							
1: 1	5 min.						60 min.							
.ioj 20	0 min.						min.							
	5 min						min.							
	0 min.						min.							
d Con	nments:	<u> </u>		0950	<b>P</b> ' 10 1 1			- 6			0.9			
S Tim	Time Canister Closed: <b>9753</b> Fi				Final Canister	Vaccum (inf	lg)	-5	Final Helium % I	in Shroud	21.5			
	Time of Sample Collection:			Dup $TO_{-}17 V$	Tube ID.			Sample Flow Rat		1				
Sam	nple Start	Time:			Sample Start T	ime:			Comments:					
- Sam	ple End	Time:			Sample End Ti	me:								
H Dura	ation (min	n.):			Duration (min.)	):								
Total Volume Sampled (ml.): Total Volume Sampled (ml.):														
Laborator	ory:	1	1A1	a	10-1-2-									
Analyzed	l for:	V	OC 4	. Tet	tod 10-	15 B	Fixed	Casse	s - ASTM	-0-1996				

*Ninyo* & Moore

### SOIL VAPOR SAMPLING DATA SHEET

Cl	ient: C	the of	- Sou	th St	5	Date: /	1/20/2	9	Personnel: 6	. KS		
Pro	oject No.:	4	031510	nøi		Weather:	(	land.	1 Rainy			
Pro	piect Name:		So the	SF	MSB	Ambient	Temp (°)	F)· 8	7 100 007			
Sit	e Location:		224	wayord	ne CAR	Ambient Personatria Processing (inter):						
		CCL	» · //	o ju p	and, solars	Anoth	Daromet	110 1 1035		Coloultions		
	ID: Depth of Pi	$\frac{220}{robe(ft)}$	~~	1 A.1	to Tubing Lon	oth (ft):	1 (0)			i Tubing Vol = (e * f)		
tail	Depui or T	iometer (i	n ).	540-50		<u>3un (11.):</u> <b>7</b>			J. Tubling Vol	m		
P	h Poring D	lameter (I	(in.).	2.15	f. Conversion	Factor $[(a/2)^2 * 617]$ :			R. Salid Pack Vol	m		
Vell	D. Dornig L	Jameter (	(ff.).	0.029	g. Conversion	Factor $[(b/$	2) *617]:		1. Dry Bent. Vol	m		
1	d. Dry Bentonite Height (ft.): i. Bent					$\frac{1}{2}$			2 Durge Volut	$\frac{110 - (1 + K + 1)}{100}$	21.7 m	
s	2 Pre-Purge check for presence of measurable water						to,		3-Purge volui	nes –	65 m	
leck	Fre-Purge C	Commo	presence o	Mal.	rable water:	no ha	U asta Ta			MADOO	09	
e Ct	Dro Durco I	ig Compo	le voine II		zin Detector (if a	·.	Leak Te	sting Met	(ir applicable):	FIEDZO		
urg	Pre-Purge L	Leak chec	K using H		ak Delector (11 a			<u>%</u>	Helium Shroud	Concentration:	%	
re-P	Vaccum Sh	ut-In Test	t (1-5 min	utes):	Start Time:	0811		End Lime	1010	Duration (min.)	5	
P P			C ( ) 0		Start inHg:	19		End inHg	-19	Pass or Fail:	puss	
Dati	Sample ID:		-20-2		Duplicate ID:				Sample Date:	11/20/2	4	
ple	Canister ID:	K	1992	-2619	Canister ID:				COA Serial #:	316-13	27	
Sam	Initial Canister Vaccum (inHg)				Initial Canister	Vaccum (i	nHg)	1	COA Flow Rate	(ml/min.)	150	
ge	Purge Meth	od:	Stin	ye	Purge Flow Rat	e (ml/min.)	150	ò.	Calculated Durat	ion of Purge:	1	
Pui	Start Purge	Time:	260	35	End Purge Tim	ie:	286	26	Actual Duration	of Purge:	1	
	Time Canist	ter Opene	d:	2826	Initial Canister	Vaccum (in	nHg)	-29	Initial Helium %	in Shroud	33.9	
ring	Interval	Time	Canister	Vaccum	Measured Hel	ium % in	Interval	Time	Canister Vaccum	Measured Heli	um % in	
nito	2 min	0021	(11)	Hg)	Shrou	25		(inHg)	Shrou	1		
Mo	2 mm.	2818	- 1	2	20.0	08	35 min.					
Gas	6 min	0890		2	28.0	///	40 mm.					
cer	8 min.						50 min					
Tra	10 min.						55 min.					
and	15 min.						60 min	8				
tion	20 min.						min.	r.				
llec	25 min						min.					
S	30 min.						min.					
nple	Comments:								and a second second			
Sar	Time Caniste	er Closed:		0832	Final Canister V	accum (inF	Hg)	-5	Final Helium % in	1 Shroud	26.5	
	Time of Sam	ple Colle	ction:						End Sample Date	11/20/24		
ľ	TO-17 VI Tu	ibe ID:			Dup. TO-17 VI	Tube ID:			Sample Flow Rate	e (ml/min.)		
17	Sample Start	Time:			Sample Start Ti	me:			Comments:			
0 F	Sample End '	Time:			Sample End Tin	ne:						
۲ <u>ا</u>	Duration (min	n.):	<u></u> т		Duration (min.):		<u> </u>					
	Total Volume	e Sampleo	1 (ml.):		Total Volume Sa	ampled (ml	.):					
Jaboi	ratory:	11/		7				/	1 Carla A	Calla P		
maly	zeu for:		CS U	y 10	-D Bri	KEA DE	usses	7.	17/11 D-1	796		

*Ninyo* & Moore

SOIL VAPOR SAMPLING DATA SHEET

Project No.: <i>United States 11.56</i> Weather: <i>Clast dy / Rang</i> Project Name:Soft SFMethod:Soft SFAmbient Temp (*F):Soft SFSite Location:3 / moro proc. Soft SFAmbient Temp (*F):Soft SFSite Location:3 / moro proc. Soft SFMethod: Soft SfAmbient Temp (*F):Soft SfID:CalcultionsDepth of Probe (ft.)Soft SfCalcultionsa. Probe Diameter (in.):Soft SfConversion Factor [(a/2) <sup>2</sup> *617]:Libit Soft Soft Sfb. Boring Diameter (in.):O. Soft g. Conversion Factor [(b/2) <sup>2</sup> *617]:L. Dry Bent. Vol = (d * g * i)b. Soft g. Conversion Factor [(b/2) <sup>2</sup> *617]:L. Dry Bent. Vol = (d * g * i)c. Sand Pack Height (ft.):I. Bentonite Porosity (%):3-Purge Volume = (j + k + 1)Colspan="2">Adv colspan="2">Method:Method:Method: Soft Method:Method:Method: Soft Method:Method:Soft Method:Soft Method:Method:Method:Soft Method:Soft Method:Soft Method:Sof								
Project Name:South SF MSBAmbient Temp (*F):Site Location:South SF MSBAmbient Temp (*F):Site Location:3 Amoyo Quic, SASFAmbient Barometric Pressure (inHg):ID:CalcultionsDepth of Probe (ft.)South SFAmbient Barometric Pressure (inHg):ID:Calcultionsa. Probe Diameter (in.):A. Sub SFAmbient Barometric Pressure (inHg):Calcultionsa. Probe Diameter (in.):A. Sub SFAmbient Barometric Pressure (inHg):Calcultionsa. Probe Diameter (in.):A. Sub SFConversion Factor [(a/2) <sup>2</sup> *617]:L. Dry Bent. Vol = (a * g * i)b. Boring Diameter (in.):A. Sub Octor Sign Factor [(b/2) <sup>2</sup> *617]:L. Dry Bent. Vol = (d * g * i)c. Sand Pack Height (ft.):h. Sand Porosity (%):1-Purge Volume = (j + k + l)Colspan="2">A. Sand Pack Height (ft.):Leak Testing Meter (if applicable):Mote Sand Sa CooperOptimic Constant Bend Time:Duration (min.): 5Sample Coak check using Helium Leak Detector (if applicable):Mote Sand Concentration:Mater Sample Coak check using Helium Leak Detector (if applicable):Mote Sample Coak check using He	Weather: Clardy /Rainy							
Site Location:3 / 100 yo for colspan="2">Ambient Emp(c)Site Location:3 / 100 yo for colspan="2">Ambient Emp(c)Site Location:3 / 100 yo for colspan="2">Ambient Emp(c)Site Location:3 / 100 yo for colspan="2">CalcultionsCalcultionsDepth of Probe (ft.)Calcultionsa. Probe Diameter (in.):2.15Calcultionsa. Probe Diameter (in.):2.15Calcultionsb. Boring Diameter (in.):2.15Conversion Factor [(a/2) <sup>2</sup> *617]:L Dry Bent. Vol = (d * g * i)b. Boring Diameter (in.):0.625g. Conversion Factor [(b/2) <sup>2</sup> *617]:L Dry Bent. Vol = (d * g * i)b. Boring Diameter (in.):0.625g. Conversion Factor [(b/2) <sup>2</sup> *617]:L Dry Bent. Vol = (d * g * i)b. Boring Compound:HeliumLeak Testing Compound:HeliumLeak Testing Compound:HeliumLeak Testing Compound:HeliumVaccum Shut-In Test (1-5 minutes):Start Time:End Time:Duplicate ID:Vaccum Shut-In Test (1-5 minutes):Start Time:Sample Date:III/2 / 2 / 2Time:Sample Date: <th colsp<="" td=""><td></td></th>	<td></td>							
Since Location:Since Location:CalcultionsID:CalcultionsDepth of Probe (ft.)Super Structure (algebra for the formation of Probe (ft.)a. Probe Diameter (in.): $P.fS$ f. Conversion Factor [(a/2) <sup>2</sup> *617]:k. Sand Pack Vol = (e * f)b. Boring Diameter (in.): $P.fS$ g. Conversion Factor [(b/2) <sup>2</sup> *617]:l. Dry Bent. Vol = (d * g * h)c. Sand Pack Height (ft.):h. Sand Porosity (%):1-Purge Volume = (j + k + l) $2/$ d. Dry Bentonite Height (ft.):i. Bentonite Porosity (%):3-Purge Volumes = $65$ e. Sand Pack Height (ft.):i. Bentonite Porosity (%):3-Purge Volumes = $65$ e. Sand Pack Height (ft.):i. Bentonite Porosity (%):3-Purge Volumes = $65$ e. Sample Date: $Mellium$ Leak Testing Meter (if applicable): $Mellius StroudVaccum Shut-In Test (1-5 minutes):Start Time:End Time:Duration (min.):5Sample ID:S V - 3Duplicate ID:Sample Date:M/2 O/29effectR = 0.366Canister ID:COA Serial #:3/6 - /32.94Initial Canister Vaccum (inHg)Initial Canister Vaccum (inHg)CoA Flow Rate (ml/min.)15effect08.55Actual Duration of Purge:/effect08.55Actual Duration of Purge:/effect08.55Actual Duration of Purge:/effect08.55Actual Duration of Purge:/effect$	Ambient Barometric Pressure (inHg)							
$\begin{array}{c c c c c c c c c c c c c c c c c c c $								
Image: Depth of Problem of								
Image: Constrained of the constraint of the const	m							
D. Boring Diameter (iii.).D. Boring Diameter (iii.).D. Boring Diameter (iii.).D. Boring Diameter (iii.).c. Sand Pack Height (ft.):h. Sand Porosity (%):1-Purge Volume = (j + k + 1)2d. Dry Bentonite Height (ft.):i. Bentonite Porosity (%):3-Purge Volumes =65Pre-Purge check for presence of measurable water:No Moder1-Purge Volumes =65Pre-Purge check for presence of measurable water:No Moder1-Purge Volumes =65Pre-Purge Leak check using Helium Leak Detector (if applicable):% Helium Shroud Concentration:1Vaccum Shut-In Test (1-5 minutes):Start Time:End Time:Duration (min.):Sample ID:SSV-3Duplicate ID:-Sample Date:11/20/24Canister ID:R & 036 - 2660Canister ID:COA Serial #:3/6 - 1329Initial Canister Vaccum (inHg)Initial Canister Vaccum (inHg)Color Flow Rate (ml/min.)1/50Purge Method:SYMMP(P)Purge Flow Rate (ml/min.)150Calculated Duration of Purge:1Mark Conster Opened:08 54End Purge Time:08 55Actual Duration of Purge:1Time Canister Opened:09 54Initial Canister Vaccum (inHg)Initial Helium % in Shroud20.Time Canister Vaccum(inHe)ShroudShroudShroudShroud	m							
C. Sand Fack Height (h.):In. Sand Foreshy (vo):If funge Foreshie (fill (h.))d. Dry Bentonite Height (ft.):i. Bentonite Porosity (%):3-Purge Volumes =g. Pre-Purge check for presence of measurable water:No ModerLeak Testing Compound:HeliumLeak Testing Compound:HeliumLeak Testing Compound:HeliumVaccum Shut-In Test (1-5 minutes):Start Time:Start Time:End Time:Vaccum Shut-In Test (1-5 minutes):Start Time:Start InHg:End inHg:Pass or Fail:TimeSample ID:Sector ID:R & 0.36 - 2660Canister ID:Consister ID:Initial Canister Vaccum (inHg)Initial Canister Vaccum (inHg)Purge Method:String?Purge Flow Rate (ml/min.)IsoStart Purge Time:08 57OB 57End Purge Time:OB 57Initial Canister VaccumIntervalTimeCanister VaccumMeasured Helium % inIntervalTimeCanister VaccumMeasured Helium % inIntervalTimeCanister VaccumMeasured Helium % inIntervalTimeCanister VaccumMeasured Helium % inIntervalTimeCanister VaccumMeasured Helium % inShroudShroud	m.							
Image: Formula Structure       Image: Formula	m							
Server of the function of the secret of the data and the water.       Iter of the function of the secret of the data and the water.       Iter of the function of the secret of the data and the water.       Iter of the function of the secret of the data and the water.         Interval       Interv								
Dealer restring composition.       Interval       Time       Dealer restring composition.       Interval       Time       Canister Vaccum       Measured Helium // (in Hg)       Interval       Time       Canister Vaccum       Measured Helium // (in Hg)       Interval       Time       Canister Vaccum       Measured Helium // (in Hg)       Interval       Time       Canister Vaccum       Measured Helium // (in Hg)       Interval       Time       Canister Vaccum       Measured Helium // (in Hg)       Interval       Shroud       Shroud       Shroud								
and and and and and and and and and and	0/							
Image: Sample ID:       Im	/0							
H       Other ming.       Disk ming       Place of Yam         start Purge       Sample ID:       Sample ID:       Sample Date:       11/2.0/2.4         Canister ID:       R 2.036-2660       Canister ID:       COA Serial #:       316-1329         Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       COA Serial #:       316-1329         Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       COA Flow Rate (ml/min.)       150         Start Purge Method:       SYMME       Purge Flow Rate (ml/min.)       150       Calculated Duration of Purge:       1         Start Purge Time:       OB 54       End Purge Time:       OB 55       Actual Duration of Purge:       1         Time Canister Opened:       9920       Initial Canister Vaccum (inHg)       -20       Initial Helium % in Shroud       20.         Start Purge       Time       Canister Vaccum       Measured Helium % in Shroud       Shroud       20.								
Canister ID:       R & O36-2660       Canister ID:       COA Serial #:       3/6-1329         Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       COA Serial #:       3/6-1329         Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       COA Flow Rate (ml/min.)       150         Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       COA Flow Rate (ml/min.)       150         Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       Calculated Duration of Purge:       1         Initial Canister Opened:       0859       End Purge Time:       0855       Actual Duration of Purge:       1         Interval       Time       Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       -20       Initial Helium % in Shroud       20         Interval       Time       Canister Vaccum (inHg)       Interval       Time       Canister Vaccum Measured Helium % in Shroud       Shroud								
Canister ID:       Initial Canister ID:       Conster ID:       Initial Canister ID:       Initial Canister ID:       Initial Canister Vaccum (inHg)       Conster ID:       Iso       Iso       Conster ID:       Iso       Iso       Conster ID:       Iso       Iso       Conster ID:       Iso       Iso       Iso       Conster ID:       Iso       Iso       Iso       Conster ID:       Iso       Iso       Conster ID:       Iso       Iso       Iso       Conster Vaccum ID:       Iso       Iso <td></td>								
Initial Canister Vaccum (inHg)       Initial Canister Vaccum (inHg)       COA Flow Rate (ml/min.)       Imitial Canister Vaccum (inHg)         Initial Canister Vaccum (inHg)       Purge Method:       Initial Canister Vaccum (inHg)       Calculated Duration of Purge:       Imitial Canister Vaccum (inHg)       Imitial Helium % in Shroud       Imitial Canister Vaccum (inHg)       Imitial Canister Vaccum (inHg)       Imitial Canister Vaccum (inHg)       Imitial Canister Vaccum (inHg)       Imitial Helium % in Shroud       Imitial Canister Vaccum (inHg)       Imitial Canister Vaccum (inHg)       Imitial Helium % in Shroud       Imitial Canister Vaccum (inHg)       Imitial C								
Purge Method:       Struck       Purge Flow Rate (ml/min.)       Calculated Duration of Purge:       I         Start Purge Time:       OB 54       End Purge Time:       OB 55       Actual Duration of Purge:       I         Time Canister Opened:       Of 20       Initial Canister Vaccum (inHg)       -20       Initial Helium % in Shroud       20.         Interval       Time       Canister Vaccum (inHg)       Measured Helium % in Shroud       Interval       Time       Canister Vaccum (inHg)       Shroud	2							
A       Start Purge Time:       OB \$\$\$       End Purge Time:       OB \$\$\$       Actual Duration of Purge:       Image: Constant Purge Time         Time Canister Opened:       Of \$\$\$       Initial Canister Vaccum (inHg)       -20       Initial Helium % in Shroud       20         Interval       Time       Canister Vaccum (inHg)       Interval       Time       Canister Vaccum Measured Helium % in Shroud       Measured Helium % in Shroud								
Time Canister Opened: <b>0920</b> Initial Canister Vaccum (inHg)     -20     Initial Helium % in Shroud <b>20</b> Initial Helium %     Initial Canister Vaccum (inHg)     Initial Helium % in Shroud <b>20</b> Initial Helium % in Shroud <b>20</b> Interval     Time     Canister Vaccum (inHg)     Interval     Time     Canister Vaccum (inHg)     Shroud								
E     Interval     Time     Canister Vaccum     Measured Helium % in (inHg)     Interval     Time     Canister Vaccum     Measured Helium %	9							
	in							
$\frac{1}{12}$ 2 min. $3972 - 80$ 24.5% 35 min.								
$\frac{1}{2}$ 4 min. $2924$ - $12$ 27.3 % 40 min.								
0         6 min.         45 min.								
8 min. 50 min.								
10 min.         55 min.								
Is min.         60 min.								
<u>5</u> 20 minmin								
<u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u>min.</u><u></u><u>min.</u></u></u>								
O         30 min.        min.								
Time Canister Closed: <b>9776</b> Final Canister Vaccum (inHg) <b>-5</b> Final Helium % in Shroud <b>201</b>	1							
Time of Sample Collection: End Sample Date MADITY								
10-17 v1 1 ube ID:     Dup. 10-17 v1 1 ube ID:     Sample Flow Rate (III/IIIII.)								
Sample Start Time. Sample Start Time. Comments.								
Duration (min ):     Duration (min ):								
Total Volume Sampled (ml.): Total Volume Sampled (ml.):								
Laboratory:	-							
Analyzed for: UDC's by TO-15 & Fixed Gusses & ASTH D-1946								



### SOIL VAPOR SAMPLING DATA SHEET

Cli	ent: (	ily c	of So	wh g	SF	Date: //	20/24	1	Personnel: 4	LXS		
Pro	ject No.:	h	23/51	011		Weather:		104	Claude / A	lain		
Pro	ject Name:	5	San Fi	merilo	KSR	Ambient '	Гетр (°F	F):	56	1		
Site	E Location:	· 2	3 Al	her a A	ie Sh SF	Ambient	Barometi	ric Pressu	re (inHg):			
	ID:	5	V-4	101						Calcultions		
s	Depth of Pro	obe (ft.)		5	e. Tubing Len	gth (ft.):		2	j. Tubing Vol. =	m		
etai	a. Probe Dia	ameter (in	.):	0.15	f. Conversion	f Conversion Factor $[(a/2)^2 * 617]$ : k.				k. Sand Pack $Vol = (c * g * h)$		
	b. Boring,D	iameter (i	n.):	2.25	g Conversion Factor $[(b/2)^2 * 617]$ :				l. Dry Bent. Vol	m		
Wel	c. Sand Pacl	k Height (	(ft.):	12	h. Sand Porosi	ty (%):	· · · · · · · · · · · · · · · · · · ·		1-Purge Volur	ne = (j + k + l)	m	
	d. Dry Bento	onite Heig	ght (ft.):	12	i. Bentonite Po	. Bentonite Porosity (%):				nes =	ml	
sks	Pre-Purge cl	heck for p	resence o	f measura	able water:	No las	k					
Chec	Leak Testing	g Compoi	und:	Helica	m		Leak Tes	sting Mete	er (if applicable):	MGD 200	2	
ge (	Pre-Purge L	eak check	using He	elium Lea	k Detector (if a	pplicable):		%	Helium Shroud	Concentration:	%	
-Pur	V	4 I., T 4	(1.5	4	Start Time:	1008	H	End Time:	1013	Duration (min.):	5	
Pre	vaccum Shi	it-in Test	(1-5 mint	ites):	Start inHg:	-22	]	End inHg:	-22	Pass or Fail:	Pars	
ata	Sample ID:	5	:0-4		Duplicate ID:		-		Sample Date:	11/20/29	P	
ple D	Canister ID: 2011 - 2638				Canister ID:	_			COA Serial #:	25		
Sam	Initial Canister Vaccum (inHg) - 30				Initial Canister	· Vaccum (ii	nHg)		COA Flow Rate	(ml/min.)	150	
ge	Burge Method:				Purge Flow Rat	e (ml/min.)	15	0	Calculated Dura	tion of Purge:	10.5	
Pur	Start Purge Time: 0997				End Purge Tin	ne:	Øq	358	Actual Duration	of Purge:	11	
	Time Canist	er Openeo	1:	1017	Initial Canister	· Vaccum (in	ıHg)	-30	Initial Helium %	in Shroud	34.3	
ring	Interval	Time	Canister	Vaccum	Measured He	lium % in	Interval	Time	Canister Vaccum	Measured Hel	ium % in	
nito	2 min	1019	(ini ~2	1g) <b>?</b>	Shrou	id	35 min		(inHg)	Snrou	a	
Mc	$\frac{2}{4}$ min.	1921	-	13	26.	4'i.	40 min.					
Gas	6 min.	1001	•	/			45 min.					
acer	8 min.						50 min.					
L Tr	10 min.					,	55 min.					
1 and	15 min.						60 min.					
ctior	20 min.		•				min.					
olle	25 min				7		min.					
le C	30 min.						min.					
ump	Comments:	<u> </u>		1.00	<b>P</b> ' 10 ' / Y			F			OCA	
S	Time Caniste	er Closed:	ation :	(022	Final Canister	vaccum (inl	Hg)	-3	Final Helium %	in Shroud	26.9	
	Time of Sam	the ID:	ction:		Due TO $17 \text{ M}$	TubaTDi			End Sample Date	11/20/24		
	Sample Start	Time:			Sample Start T	i Tube ID.			Comments:			
-17	Sample End	Time:			Sample End Ti	me:			comments.			
TO	Duration (mi	$\frac{1}{n}$			Duration (min.)	)·						
	Total Volum	e Sample	d (ml.):		Total Volume S	Sampled (m	1.):					
Labo	aboratory: NOT											
Anal	yzed for:	1	jŪC's	6	70-15 B	Fixed	Cases	- 15	TH 0-1946	0		
				ľ								

# **APPENDIX B**

Laboratory Analytical Report



McCampbell Analytical, Inc.

"When Quality Counts"

# **Analytical Report**

WorkOrder:	2411F09
Report Created for:	Ninyo & Moore
	1301 Marina Village Parkway, Suite 110 Alameda, CA 94501
Project Contact:	Gregory Roberts
Project P.O.: Project:	403151011; City of SSF-MSB
Project Location: Project Received:	33 Arroyo Drive South SF 11/22/2024

Analytical Report reviewed & approved for release on 12/06/2024 by:

Jennifer Lagerbom Project Manager

McCampbell Analytical Inc. is not accredited for all the testing in this report. The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested.

1534 Willow Pass Rd. Pittsburg, CA 94565 TEL: (877) 252-9262 FAX: (925) 252-9269 www.mccampbell.com



## **Glossary of Terms & Qualifier Definitions**

Client: Ninyo & Moore

WorkOrder: 2411F09

Project:	403151011: City	of SSF-MSB
I I UJCCI.	+05151011, City	

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CCV	Continuing Calibration Verification.
CCV REC (%)	% recovery of Continuing Calibration Verification.
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 $\mu$ m filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LCS2	Second LCS for the batch. Spike level is lower than that for the first LCS; applicable to method 1633.
LQL	Lowest Quantitation Level
MB	Method Blank
MB IS/SS % Rec	% Recovery of Internal Standard or Surrogate in Method Blank, if applicable
MB SS % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit <sup>1</sup>
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit <sup>2</sup>
RPD	Relative Percent Difference
RRT	Relative Retention Time
RSD	Relative Standard Deviation
SNR	Surrogate is diluted out of the calibration range

<sup>&</sup>lt;sup>1</sup> MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016. Values are based upon our default extraction volume/amount and are subject to change.

<sup>&</sup>lt;sup>2</sup> RL is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.) Values are based upon our default extraction volume/amount and are subject to change.



## **Glossary of Terms & Qualifier Definitions**

**Client:** Ninyo & Moore WorkOrder: 2411F09

<b>Project:</b> 4031510	011; City of SSF-MSB
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TNTC	"Too Numerous to Count;" greater than 250 colonies observed on the plate.
TZA	TimeZone Net Adjustment for sample collected outside of MAI's Coordinated Universal Time (UTC). (Adjustment for Daylight Saving is not accounted.)
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

#### **Quality Control Qualifiers**

F2 LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.

F7 The LCS/LCSD recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data is reportable.



## **Case Narrative**

Client:Ninyo & MooreProject:403151011; City of SSF-MSB

**Work Order:** 2411F09 December 06, 2024

TO-15 ANALYSIS

McCampbell Analytical Inc. is currently not accredited for TO15 and ASTM D 1946m.

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.



# **Summary of Sample Pressure Report**

Lab ID	Canister ID	Lab Prep Vacuum	Field Initial Vacuum	Field Final Vacuum	Lab Received Vacuum	Lab Received Vacuum	Lab Final Vacuum / Pressure
		(psia)	(inHg)	(inHg)	(psia)	(inHg)	(psia)
2411F09-001A	1975-2602	0.22	-29	-5	13.01	-3.44	26.11
2411F09-002A	1992-2619	0.25	-29	-5	12.61	-4.26	25.3
2411F09-003A	2036-2660	0.24	-28	-5	12.16	-5.17	24.63
2411F09-004A	2011-2638	0.25	-30	-5	12.04	-5.42	24.14



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	11/26/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	ASTM D 1946-90
Analytical Method:	ASTM D 1946-90
Unit:	%

Atmospheric Gases							
Lab ID	Matrix	Date Collected	Instr	ument	Batch ID		
2411F09-001A	SoilGas	11/20/2024 07:53	GC51	2024-11-26 14-5	306790		
Final Pressure	e (psia)				Analyst(s)		
NA					PRE		
	<u>Result</u>		<u>RL</u>	DF	Date Analyzed		
	35		0.40	1	11/26/2024 14:59		
	A Lab ID 2411F09-001A Final Pressure NA	Atmospherie         Lab ID       Matrix         2411F09-001A       SoilGas         Final Pressur       (psia)         NA       Result         35       35	Atmospheric GasesLab IDMatrixDate Collected2411F09-001ASoilGas11/20/2024 07:53Final Pressure (psia)Result35	Atmospheric Gases         Lab ID       Matrix       Date Collected       Instruction         2411F09-001A       SoilGas       11/20/2024 07:53       GC51         Final Pressure (psia)       Image: Collected       Result       Result         NA       35       0.40	Atmospheric GasesLab IDMatrixDate CollectedInstrument2411F09-001ASoilGas11/20/2024 07:53GC512024-11-26 14-5Final Pressure (psia)NAResultEStateDE350.401		

SSV-2	2411F09-002A	SoilGas	11/20/2024 08:32	GC51	2024-11-26 15-4	306790
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
NA	NA					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Oxygen		35		0.40	1	11/26/2024 15:43

SSV-3	2411F09-003A SoilGa	s 11/20/2024 09:26	GC51	2024-11-26 16-2	306790
Initial Pressure (psia)	Final Pressure (psia)				Analyst(s)
NA	NA				PRE
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Oxygen	35		0.40	1	11/26/2024 16:27



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	11/26/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	ASTM D 1946-90
Analytical Method:	ASTM D 1946-90
Unit:	%

Atmospheric Gases							
Client ID	Lab ID	Matrix	Date Collected	Instr	ument	Batch ID	
SV-4	2411F09-004A	SoilGas	11/20/2024 10:22	GC51	2024-11-26 17-1	306790	
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)	
NA	NA					PRE	
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed	
Oxygen		35		0.40	1	11/26/2024 17:12	



 Client:
 Ninyo & Moore

 Date Received:
 11/22/2024 14:16

 Date Prepared:
 12/02/2024

 Project:
 403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	ASTM D 1946-90
Analytical Method:	ASTM D 1946-90
Unit:	%

		Helium				
Client ID	Lab ID	Matrix	Date Collected	Instru	ment	Batch ID
SV-1	2411F09-001A	SoilGas	11/20/2024 07:53	GC26 1	202240310.D	306976
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
13.01	26.11					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Helium		ND		0.050	1	12/02/2024 17:58

SSV-2	2411F09-002A	SoilGas	11/20/2024 08:32	GC26	1202240311.D	306976
Initial Pressure (psia)	Final Pressure (psia)			Analyst(s)		
12.61	25.30					PRE
<u>Analytes</u> Helium		<u>Result</u> ND		<u>RL</u> 0.050	<u>DF</u> 1	Date Analyzed 12/02/2024 18:11

2411F09-003A	SoilGas	11/20/2024 09:26	GC26	1202240312.D	306976
Final Pressure	e (psia)				Analyst(s)
24.63					PRE
	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
	ND		0.051	1	12/02/2024 18:24
	2411F09-003A Final Pressure 24.63	2411F09-003A SoilGas Final Pressure (psia) 24.63 Result ND	2411F09-003A         SoilGas         11/20/2024 09:26           Final Pressure (psia)         24.63         Result           Result         ND         ND	2411F09-003A         SoilGas         11/20/2024 09:26         GC26           Final Pressure (psia)         Example         Result         RL         0.051	2411F09-003A         SoilGas         11/20/2024 09:26         GC26 12/240312.D           Final Pressure (psia)         E         E         E           24.63         Result         RL         DF           ND         0.051         1



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/02/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	ASTM D 1946-90
Analytical Method:	ASTM D 1946-90
Unit:	%

Helium						
Client ID	Lab ID	Matrix	Date Collected	Instru	ıment	Batch ID
SV-4	2411F09-004A	SoilGas	11/20/2024 10:22	GC26	1202240313.D	306976
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
12.04	24.14					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Helium		ND		0.050	1	12/02/2024 18:36



Ninyo & Moore
11/22/2024 14:16
12/03/2024
403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

## Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instr	ument	Batch ID
SV-1	2411F09-001A	SoilGas	11/20/2024 07:53	GC24	12022419.D	307071
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
13.01	26.11					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Acetone		ND		60	1	12/03/2024 03:01
Acrolein		ND		5.8	1	12/03/2024 03:01
Acrylonitrile		ND		1.1	1	12/03/2024 03:01
tert-Amyl methyl ether (TAME)		ND		2.1	1	12/03/2024 03:01
Benzene		ND		1.6	1	12/03/2024 03:01
Benzyl chloride		ND		2.7	1	12/03/2024 03:01
Bromodichloromethane		ND		1.4	1	12/03/2024 03:01
Bromoform		ND		5.3	1	12/03/2024 03:01
Bromomethane		2.7		1.9	1	12/03/2024 03:01
1,3-Butadiene		ND		1.1	1	12/03/2024 03:01
2-Butanone (MEK)		ND		15	1	12/03/2024 03:01
t-Butyl alcohol (TBA)		ND		16	1	12/03/2024 03:01
Carbon Disulfide		ND		1.6	1	12/03/2024 03:01
Carbon Tetrachloride		ND		1.3	1	12/03/2024 03:01
Chlorobenzene		ND		2.4	1	12/03/2024 03:01
Chloroethane		ND		1.3	1	12/03/2024 03:01
Chloroform		ND		2.5	1	12/03/2024 03:01
Chloromethane		ND		1.0	1	12/03/2024 03:01
Cyclohexane		ND		18	1	12/03/2024 03:01
Dibromochloromethane		ND		4.4	1	12/03/2024 03:01
1,2-Dibromo-3-chloropropane		ND		0.12	1	12/03/2024 03:01
1,2-Dibromoethane (EDB)		ND		0.078	1	12/03/2024 03:01
1,2-Dichlorobenzene		ND		3.0	1	12/03/2024 03:01
1,3-Dichlorobenzene		ND		3.0	1	12/03/2024 03:01
1,4-Dichlorobenzene		ND		3.0	1	12/03/2024 03:01
Dichlorodifluoromethane		ND		2.5	1	12/03/2024 03:01
1,1-Dichloroethane		ND		2.0	1	12/03/2024 03:01
1,2-Dichloroethane (1,2-DCA)		ND		2.0	1	12/03/2024 03:01
1,1-Dichloroethene		ND		2.0	1	12/03/2024 03:01
cis-1,2-Dichloroethene		ND		2.0	1	12/03/2024 03:01
trans-1,2-Dichloroethene		ND		2.0	1	12/03/2024 03:01
1,2-Dichloropropane		ND		2.4	1	12/03/2024 03:01
cis-1,3-Dichloropropene		ND		2.3	1	12/03/2024 03:01
trans-1,3-Dichloropropene		ND		2.3	1	12/03/2024 03:01



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

	Volati	le Organic (	Compounds			
Client ID	Lab ID	Matrix	Date Collected	Instrument GC24 12022419.D		Batch ID 307071
SV-1	2411F09-001A	SoilGas	11/20/2024 07:53			
Initial Pressure (psia)	Final Pressure	Final Pressure (psia)				Analyst(s)
13.01	26.11					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane		ND		3.6	1	12/03/2024 03:01
Diisopropyl ether (DIPE)		ND		2.1	1	12/03/2024 03:01
1,4-Dioxane		ND		1.9	1	12/03/2024 03:01
Ethanol		ND		95	1	12/03/2024 03:01
Ethyl acetate		ND		1.9	1	12/03/2024 03:01
Ethyl tert-butyl ether (ETBE)		ND		2.1	1	12/03/2024 03:01
Ethylbenzene		ND		2.2	1	12/03/2024 03:01
4-Ethyltoluene		ND		2.5	1	12/03/2024 03:01
Freon 113		ND		3.9	1	12/03/2024 03:01
Heptane		ND		21	1	12/03/2024 03:01
Hexachlorobutadiene		ND		2.2	1	12/03/2024 03:01
Hexachloroethane		ND		4.9	1	12/03/2024 03:01
Hexane		ND		18	1	12/03/2024 03:01
2-Hexanone		ND		2.1	1	12/03/2024 03:01
4-Methyl-2-pentanone (MIBK)		ND		2.1	1	12/03/2024 03:01
Methyl-t-butyl ether (MTBE)		ND		1.9	1	12/03/2024 03:01
Methylene chloride		ND		8.8	1	12/03/2024 03:01
Methyl methacrylate		ND		2.1	1	12/03/2024 03:01
Naphthalene		ND		2.7	1	12/03/2024 03:01
Styrene		ND		2.2	1	12/03/2024 03:01
1,1,1,2-Tetrachloroethane		ND		3.5	1	12/03/2024 03:01
1,1,2,2-Tetrachloroethane		ND		0.70	1	12/03/2024 03:01
Tetrachloroethene		7.7		3.5	1	12/03/2024 03:01
Tetrahydrofuran		ND		3.0	1	12/03/2024 03:01
Toluene		ND		1.9	1	12/03/2024 03:01
1,2,4-Trichlorobenzene		ND		3.8	1	12/03/2024 03:01
1,1,1-Trichloroethane		ND		2.8	1	12/03/2024 03:01
1,1,2-Trichloroethane		ND		2.8	1	12/03/2024 03:01
Trichloroethene		ND		2.8	1	12/03/2024 03:01
1,2,3-Trichloropropane		ND		3.1	1	12/03/2024 03:01
Trichlorofluoromethane		ND		2.9	1	12/03/2024 03:01
1,2,4-Trimethylbenzene		ND		2.5	1	12/03/2024 03:01
1,3,5-Trimethylbenzene		ND		2.5	1	12/03/2024 03:01
Vinyl Acetate		ND		18	1	12/03/2024 03:01



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{\textbf{3}}$

	Volatil	le Organic (	Compounds				
Client ID	Lab ID	Matrix	Date Collected	Instru	ment	Batch ID	
SV-1	2411F09-001A	SoilGas	11/20/2024 07:53	GC24	12022419.D	307071	
Initial Pressure (psia)	<b>Final Pressure</b>	e (psia)				Analyst(s)	
13.01	26.11					PRE	
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed	
Vinyl Chloride		ND		0.26	1	12/03/2024 03:01	
m,p-Xylene		ND		4.4	1	12/03/2024 03:01	
o-Xylene		ND		2.2	1	12/03/2024 03:01	
Xylenes, Total		ND		4.4	1	12/03/2024 03:01	
Surrogates		<u>REC (%)</u>		<u>Limits</u>			
1,2-DCA-d4		103		70-130		12/03/2024 03:01	
Toluene-d8		96		70-130		12/03/2024 03:01	
4-BFB		91		70-130		12/03/2024 03:01	



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

## **Volatile Organic Compounds**

Client ID	Lab ID	Matrix	Date Collected	Instru	ıment	Batch ID
SSV-2	2411F09-002A	SoilGas	11/20/2024 08:32	GC24	12022420.D	307071
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
12.61	25.30					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Acetone		ND		60	1	12/03/2024 03:40
Acrolein		ND		5.8	1	12/03/2024 03:40
Acrylonitrile		ND		1.1	1	12/03/2024 03:40
tert-Amyl methyl ether (TAME)		ND		2.1	1	12/03/2024 03:40
Benzene		ND		1.6	1	12/03/2024 03:40
Benzyl chloride		ND		2.7	1	12/03/2024 03:40
Bromodichloromethane		ND		1.4	1	12/03/2024 03:40
Bromoform		ND		5.3	1	12/03/2024 03:40
Bromomethane		ND		1.9	1	12/03/2024 03:40
1,3-Butadiene		ND		1.1	1	12/03/2024 03:40
2-Butanone (MEK)		ND		15	1	12/03/2024 03:40
t-Butyl alcohol (TBA)		ND		16	1	12/03/2024 03:40
Carbon Disulfide		ND		1.6	1	12/03/2024 03:40
Carbon Tetrachloride		ND		1.3	1	12/03/2024 03:40
Chlorobenzene		ND		2.4	1	12/03/2024 03:40
Chloroethane		ND		1.3	1	12/03/2024 03:40
Chloroform		ND		2.5	1	12/03/2024 03:40
Chloromethane		ND		1.0	1	12/03/2024 03:40
Cyclohexane		ND		18	1	12/03/2024 03:40
Dibromochloromethane		ND		4.4	1	12/03/2024 03:40
1,2-Dibromo-3-chloropropane		ND		0.12	1	12/03/2024 03:40
1,2-Dibromoethane (EDB)		ND		0.078	1	12/03/2024 03:40
1,2-Dichlorobenzene		ND		3.0	1	12/03/2024 03:40
1,3-Dichlorobenzene		ND		3.0	1	12/03/2024 03:40
1,4-Dichlorobenzene		ND		3.0	1	12/03/2024 03:40
Dichlorodifluoromethane		2.5		2.5	1	12/03/2024 03:40
1,1-Dichloroethane		ND		2.0	1	12/03/2024 03:40
1,2-Dichloroethane (1,2-DCA)		ND		2.0	1	12/03/2024 03:40
1,1-Dichloroethene		ND		2.0	1	12/03/2024 03:40
cis-1,2-Dichloroethene		ND		2.0	1	12/03/2024 03:40
trans-1,2-Dichloroethene		ND		2.0	1	12/03/2024 03:40
1,2-Dichloropropane		ND		2.4	1	12/03/2024 03:40
cis-1,3-Dichloropropene		ND		2.3	1	12/03/2024 03:40
trans-1,3-Dichloropropene		ND		2.3	1	12/03/2024 03:40



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{\textbf{3}}$

	Volati	le Organic (	Compounds			
Client ID	Lab ID	Matrix	Date Collected	Instru	ıment	Batch ID
SSV-2	2411F09-002A	SoilGas	11/20/2024 08:32	GC24	12022420.D	307071
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
12.61	25.30					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane		ND		3.6	1	12/03/2024 03:40
Diisopropyl ether (DIPE)		ND		2.1	1	12/03/2024 03:40
1,4-Dioxane		ND		1.9	1	12/03/2024 03:40
Ethanol		ND		95	1	12/03/2024 03:40
Ethyl acetate		ND		1.9	1	12/03/2024 03:40
Ethyl tert-butyl ether (ETBE)		ND		2.1	1	12/03/2024 03:40
Ethylbenzene		ND		2.2	1	12/03/2024 03:40
4-Ethyltoluene		ND		2.5	1	12/03/2024 03:40
Freon 113		ND		3.9	1	12/03/2024 03:40
Heptane		ND		21	1	12/03/2024 03:40
Hexachlorobutadiene		ND		2.2	1	12/03/2024 03:40
Hexachloroethane		ND		4.9	1	12/03/2024 03:40
Hexane		ND		18	1	12/03/2024 03:40
2-Hexanone		ND		2.1	1	12/03/2024 03:40
4-Methyl-2-pentanone (MIBK)		ND		2.1	1	12/03/2024 03:40
Methyl-t-butyl ether (MTBE)		ND		1.9	1	12/03/2024 03:40
Methylene chloride		ND		8.8	1	12/03/2024 03:40
Methyl methacrylate		ND		2.1	1	12/03/2024 03:40
Naphthalene		ND		2.7	1	12/03/2024 03:40
Styrene		2.4		2.2	1	12/03/2024 03:40
1,1,1,2-Tetrachloroethane		ND		3.5	1	12/03/2024 03:40
1,1,2,2-Tetrachloroethane		ND		0.70	1	12/03/2024 03:40
Tetrachloroethene		89		3.5	1	12/03/2024 03:40
Tetrahydrofuran		ND		3.0	1	12/03/2024 03:40
Toluene		ND		1.9	1	12/03/2024 03:40
1,2,4-Trichlorobenzene		ND		3.8	1	12/03/2024 03:40
1,1,1-Trichloroethane		ND		2.8	1	12/03/2024 03:40
1,1,2-Trichloroethane		ND		2.8	1	12/03/2024 03:40
Trichloroethene		13		2.8	1	12/03/2024 03:40
1,2,3-Trichloropropane		ND		3.1	1	12/03/2024 03:40
Trichlorofluoromethane		ND		2.9	1	12/03/2024 03:40
1,2,4-Trimethylbenzene		ND		2.5	1	12/03/2024 03:40
1,3,5-Trimethylbenzene		ND		2.5	1	12/03/2024 03:40
Vinvl Acetate		ND		18	1	12/03/2024 03:40



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

#### **Volatile Organic Compounds Client ID** Lab ID Matrix **Date Collected Instrument Batch ID** SSV-2 2411F09-002A SoilGas 11/20/2024 08:32 GC24 12022420.D 307071 **Initial Pressure (psia) Final Pressure (psia)** Analyst(s) 12.61 25.30 PRE Result <u>RL</u> <u>DF</u> Analytes Date Analyzed Vinyl Chloride ND 0.26 12/03/2024 03:40 1 m,p-Xylene 4.4 4.4 1 12/03/2024 03:40 o-Xylene 2.9 2.2 1 12/03/2024 03:40 Xylenes, Total 2.2 12/03/2024 03:40 7.3 1 **Surrogates** REC (%) <u>Limits</u> 1,2-DCA-d4 104 70-130 12/03/2024 03:40 Toluene-d8 95 70-130 12/03/2024 03:40 4-BFB 101 70-130 12/03/2024 03:40



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

## Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instr	ument	Batch ID
SSV-3	2411F09-003A	SoilGas	11/20/2024 09:26	GC24	12022421.D	307071
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
12.16	24.63					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Acetone		ND		61	1	12/03/2024 04:20
Acrolein		ND		5.9	1	12/03/2024 04:20
Acrylonitrile		ND		1.1	1	12/03/2024 04:20
tert-Amyl methyl ether (TAME)		ND		2.1	1	12/03/2024 04:20
Benzene		ND		1.6	1	12/03/2024 04:20
Benzyl chloride		ND		2.7	1	12/03/2024 04:20
Bromodichloromethane		ND		1.4	1	12/03/2024 04:20
Bromoform		ND		5.4	1	12/03/2024 04:20
Bromomethane		ND		1.9	1	12/03/2024 04:20
1,3-Butadiene		ND		1.1	1	12/03/2024 04:20
2-Butanone (MEK)		ND		15	1	12/03/2024 04:20
t-Butyl alcohol (TBA)		ND		16	1	12/03/2024 04:20
Carbon Disulfide		ND		1.6	1	12/03/2024 04:20
Carbon Tetrachloride		ND		1.3	1	12/03/2024 04:20
Chlorobenzene		ND		2.4	1	12/03/2024 04:20
Chloroethane		ND		1.3	1	12/03/2024 04:20
Chloroform		ND		2.5	1	12/03/2024 04:20
Chloromethane		ND		1.0	1	12/03/2024 04:20
Cyclohexane		ND		18	1	12/03/2024 04:20
Dibromochloromethane		ND		4.5	1	12/03/2024 04:20
1,2-Dibromo-3-chloropropane		ND		0.12	1	12/03/2024 04:20
1,2-Dibromoethane (EDB)		ND		0.079	1	12/03/2024 04:20
1,2-Dichlorobenzene		ND		3.0	1	12/03/2024 04:20
1,3-Dichlorobenzene		ND		3.0	1	12/03/2024 04:20
1,4-Dichlorobenzene		ND		3.0	1	12/03/2024 04:20
Dichlorodifluoromethane		2.6		2.5	1	12/03/2024 04:20
1,1-Dichloroethane		ND		2.0	1	12/03/2024 04:20
1,2-Dichloroethane (1,2-DCA)		ND		2.0	1	12/03/2024 04:20
1,1-Dichloroethene		ND		2.0	1	12/03/2024 04:20
cis-1,2-Dichloroethene		ND		2.0	1	12/03/2024 04:20
trans-1,2-Dichloroethene		ND		2.0	1	12/03/2024 04:20
1,2-Dichloropropane		ND		2.4	1	12/03/2024 04:20
cis-1,3-Dichloropropene		ND		2.3	1	12/03/2024 04:20
trans-1,3-Dichloropropene		ND		2.3	1	12/03/2024 04:20



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

Volatile Organic Compounds						
Client ID	Lab ID	Matrix	Date Collected	Instru	ıment	Batch ID
SSV-3	2411F09-003A	SoilGas	11/20/2024 09:26	GC24	12022421.D	307071
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
12.16	24.63					PRE
Analytes		<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane		ND		3.6	1	12/03/2024 04:20
Diisopropyl ether (DIPE)		ND		2.1	1	12/03/2024 04:20
1,4-Dioxane		ND		1.9	1	12/03/2024 04:20
Ethanol		ND		96	1	12/03/2024 04:20
Ethyl acetate		ND		1.9	1	12/03/2024 04:20
Ethyl tert-butyl ether (ETBE)		ND		2.1	1	12/03/2024 04:20
Ethylbenzene		ND		2.2	1	12/03/2024 04:20
4-Ethyltoluene		ND		2.5	1	12/03/2024 04:20
Freon 113		ND		3.9	1	12/03/2024 04:20
Heptane		ND		21	1	12/03/2024 04:20
Hexachlorobutadiene		ND		2.2	1	12/03/2024 04:20
Hexachloroethane		ND		5.0	1	12/03/2024 04:20
Hexane		ND		18	1	12/03/2024 04:20
2-Hexanone		ND		2.1	1	12/03/2024 04:20
4-Methyl-2-pentanone (MIBK)		ND		2.1	1	12/03/2024 04:20
Methyl-t-butyl ether (MTBE)		ND		1.9	1	12/03/2024 04:20
Methylene chloride		ND		8.9	1	12/03/2024 04:20
Methyl methacrylate		ND		2.1	1	12/03/2024 04:20
Naphthalene		ND		2.7	1	12/03/2024 04:20
Styrene		ND		2.2	1	12/03/2024 04:20
1,1,1,2-Tetrachloroethane		ND		3.5	1	12/03/2024 04:20
1,1,2,2-Tetrachloroethane		ND		0.71	1	12/03/2024 04:20
Tetrachloroethene		190		3.5	1	12/03/2024 04:20
Tetrahydrofuran		ND		3.0	1	12/03/2024 04:20
Toluene		ND		1.9	1	12/03/2024 04:20
1,2,4-Trichlorobenzene		ND		3.8	1	12/03/2024 04:20
1,1,1-Trichloroethane		ND		2.8	1	12/03/2024 04:20
1,1,2-Trichloroethane		ND		2.8	1	12/03/2024 04:20
Trichloroethene		13		2.8	1	12/03/2024 04:20
1,2,3-Trichloropropane		ND		3.1	1	12/03/2024 04:20
Trichlorofluoromethane		ND		2.9	1	12/03/2024 04:20
1,2,4-Trimethylbenzene		ND		2.5	1	12/03/2024 04:20
1,3,5-Trimethylbenzene		ND		2.5	1	12/03/2024 04:20
Vinvl Acetate		ND		18	1	12/03/2024 04:20



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{\textbf{3}}$

### Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instr	rument	Batch ID
SSV-3	2411F09-003A	SoilGas	11/20/2024 09:26	GC24	12022421.D	307071
Initial Pressure (psia)	Final Pressu	re (psia)				Analyst(s)
12.16	24.63					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Vinyl Chloride		ND		0.26	1	12/03/2024 04:20
m,p-Xylene		ND		4.5	1	12/03/2024 04:20
o-Xylene		ND		2.2	1	12/03/2024 04:20
Xylenes, Total		ND		4.5	1	12/03/2024 04:20
Surrogates		<u>REC (%)</u>		<u>Limits</u>	i	
1,2-DCA-d4		104		70-13	0	12/03/2024 04:20
Toluene-d8		95		70-13	0	12/03/2024 04:20
4-BFB		94		70-13	0	12/03/2024 04:20



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

### **Volatile Organic Compounds**

	Datti ID
SV-4 2411F09-004A SoilGas 11/20/2024 10:22 GC24 12022422.D	307071
Initial Pressure (psia)Final Pressure (psia)Ana	alyst(s)
12.04 24.14 PRE	E
Analytes Result Result DF Date	e Analyzed
Acetone ND 60 1 12/0	3/2024 05:00
Acrolein ND 5.8 1 12/0	3/2024 05:00
Acrylonitrile ND 1.1 1 12/0	3/2024 05:00
tert-Amyl methyl ether (TAME) ND 2.1 1 12/0	3/2024 05:00
Benzene <b>7.8</b> 1.6 1 12/0	3/2024 05:00
Benzyl chloride ND 2.7 1 12/0	3/2024 05:00
Bromodichloromethane ND 1.4 1 12/0	3/2024 05:00
Bromoform ND 5.3 1 12/0	3/2024 05:00
Bromomethane 4.0 1.9 1 12/0	3/2024 05:00
1,3-Butadiene ND 1.1 1 12/0	3/2024 05:00
2-Butanone (MEK) ND 15 1 12/0	3/2024 05:00
t-Butyl alcohol (TBA) ND 16 1 12/0	3/2024 05:00
Carbon Disulfide <b>1.8</b> 1.6 1 12/0	3/2024 05:00
Carbon Tetrachloride ND 1.3 1 12/0	3/2024 05:00
Chlorobenzene ND 2.4 1 12/0	3/2024 05:00
Chloroethane ND 1.3 1 12/0	3/2024 05:00
Chloroform ND 2.5 1 12/0	3/2024 05:00
Chloromethane ND 1.0 1 12/0	3/2024 05:00
Cyclohexane 46 18 1 12/0	3/2024 05:00
Dibromochloromethane ND 4.4 1 12/0	3/2024 05:00
1,2-Dibromo-3-chloropropane ND 0.12 1 12/0	3/2024 05:00
1,2-Dibromoethane (EDB) ND 0.078 1 12/0	3/2024 05:00
1,2-Dichlorobenzene ND 3.0 1 12/0	3/2024 05:00
1,3-Dichlorobenzene ND 3.0 1 12/0	3/2024 05:00
1,4-Dichlorobenzene ND 3.0 1 12/0	3/2024 05:00
Dichlorodifluoromethane ND 2.5 1 12/0	3/2024 05:00
1,1-Dichloroethane ND 2.0 1 12/0	3/2024 05:00
1,2-Dichloroethane (1,2-DCA) ND 2.0 1 12/0	3/2024 05:00
1,1-Dichloroethene ND 2.0 1 12/0	3/2024 05:00
cis-1,2-Dichloroethene ND 2.0 1 12/0	3/2024 05:00
trans-1,2-Dichloroethene ND 2.0 1 12/0	3/2024 05:00
1,2-Dichloropropane ND 2.4 1 12/0	3/2024 05:00
cis-1,3-Dichloropropene ND 2.3 1 12/0	3/2024 05:00
trans-1,3-Dichloropropene ND 2.3 1 12/0	3/2024 05:00



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{3}$

Volatile Organic Compounds						
Client ID	Lab ID	Matrix	Date Collected	Instru	iment	Batch ID
SV-4	2411F09-004A	SoilGas	11/20/2024 10:22	GC24	12022422.D	307071
Initial Pressure (psia)	Final Pressure	e (psia)				Analyst(s)
12.04	24.14					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane		ND		3.6	1	12/03/2024 05:00
Diisopropyl ether (DIPE)		ND		2.1	1	12/03/2024 05:00
1,4-Dioxane		ND		1.9	1	12/03/2024 05:00
Ethanol		ND		95	1	12/03/2024 05:00
Ethyl acetate		ND		1.9	1	12/03/2024 05:00
Ethyl tert-butyl ether (ETBE)		ND		2.1	1	12/03/2024 05:00
Ethylbenzene		5.6		2.2	1	12/03/2024 05:00
4-Ethyltoluene		ND		2.5	1	12/03/2024 05:00
Freon 113		ND		3.9	1	12/03/2024 05:00
Heptane		ND		21	1	12/03/2024 05:00
Hexachlorobutadiene		ND		2.2	1	12/03/2024 05:00
Hexachloroethane		ND		4.9	1	12/03/2024 05:00
Hexane		ND		18	1	12/03/2024 05:00
2-Hexanone		ND		2.1	1	12/03/2024 05:00
4-Methyl-2-pentanone (MIBK)		ND		2.1	1	12/03/2024 05:00
Methyl-t-butyl ether (MTBE)		ND		1.9	1	12/03/2024 05:00
Methylene chloride		ND		8.8	1	12/03/2024 05:00
Methyl methacrylate		ND		2.1	1	12/03/2024 05:00
Naphthalene		ND		2.7	1	12/03/2024 05:00
Styrene		ND		2.2	1	12/03/2024 05:00
1,1,1,2-Tetrachloroethane		ND		3.5	1	12/03/2024 05:00
1,1,2,2-Tetrachloroethane		ND		0.70	1	12/03/2024 05:00
Tetrachloroethene		5.1		3.5	1	12/03/2024 05:00
Tetrahydrofuran		ND		3.0	1	12/03/2024 05:00
Toluene		3.1		1.9	1	12/03/2024 05:00
1,2,4-Trichlorobenzene		ND		3.8	1	12/03/2024 05:00
1,1,1-Trichloroethane		ND		2.8	1	12/03/2024 05:00
1,1,2-Trichloroethane		ND		2.8	1	12/03/2024 05:00
Trichloroethene		ND		2.8	1	12/03/2024 05:00
1,2,3-Trichloropropane		ND		3.1	1	12/03/2024 05:00
Trichlorofluoromethane		ND		2.9	1	12/03/2024 05:00
1,2,4-Trimethylbenzene		11		2.5	1	12/03/2024 05:00
1,3,5-Trimethylbenzene		ND		2.5	1	12/03/2024 05:00
Vinyl Acetate		ND		18	1	12/03/2024 05:00



Client:	Ninyo & Moore
Date Received:	11/22/2024 14:16
Date Prepared:	12/03/2024
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^{\textbf{3}}$

Volatile Organic Compounds						
Client ID	Lab ID	Matrix	Date Collected	Instr	ument	Batch ID
SV-4	2411F09-004A	SoilGas	11/20/2024 10:22	GC24	12022422.D	307071
Initial Pressure (psia)	<b>Final Pressure</b>	e (psia)				Analyst(s)
12.04	24.14					PRE
Analytes		<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Vinyl Chloride		ND		0.26	1	12/03/2024 05:00
m,p-Xylene		16		4.4	1	12/03/2024 05:00
o-Xylene		6.7		2.2	1	12/03/2024 05:00
Xylenes, Total		23		2.2	1	12/03/2024 05:00
Surrogates		<u>REC (%)</u>		<u>Limits</u>		
1,2-DCA-d4		104		70-13	0	12/03/2024 05:00
Toluene-d8		89		70-13	0	12/03/2024 05:00
4-BFB		125		70-13	0	12/03/2024 05:00

Ninyo & Moore
11/26/2024
11/26/2024
GC51
SoilGas
403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	306790
<b>Extraction Method:</b>	ASTM D 1946-90
Analytical Method:	ASTM D 1946-90
Unit:	%
Sample ID:	MB/LCS/LCSD-306790

### QC Summary Report for ASTM D1946-90

Analyte	MB Result		MDL	RL					
Oxygen	ND		0.027	0.40		-	-	-	
Analyte	LCS Result	LCSD Result	SPK Val		LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Oxygen	3.5	3.5	4.2		83	83	70-130	0.276	20

Ninyo & Moore
12/02/2024
12/02/2024
GC26
Soilgas
403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	306976
<b>Extraction Method:</b>	ASTM D 1946-90
Analytical Method:	ASTM D 1946-90
Unit:	%
Sample ID:	MB/LCS/LCSD-306976

### QC Summary Report for ASTM D1946-90

Analyte	MB Result		MDL	RL					
Helium	ND		0.050	0.050		-	-	-	
Analyte	LCS Result	LCSD Result	SPK Val		LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Helium	0.18	0.18	0.20		90	90	60-140	0.00955	20

Ninyo & Moore
12/02/2024 - 12/03/2024
12/02/2024 - 12/03/2024
GC24
SoilGas
403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	307071
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^3$
Sample ID:	MB/LCS/LCSD-307071

Analyte	MB Result	MDL	RL	SPK Val	MB IS/SS %REC	MB IS/SS Limits
Acetone	ND	4.3	60	-	-	-
Acrolein	ND	1.1	5.8	-	-	-
Acrylonitrile	ND	0.66	1.1	-	-	-
tert-Amyl methyl ether (TAME)	ND	1.3	2.1	-	-	-
Benzene	ND	0.79	1.6	-	-	-
Benzyl chloride	ND	1.7	2.7	-	-	-
Bromodichloromethane	ND	0.13	1.4	-	-	-
Bromoform	ND	1.1	5.3	-	-	-
Bromomethane	ND	0.41	1.9	-	-	-
1,3-Butadiene	ND	0.98	1.1	-	-	-
2-Butanone (MEK)	ND	2.0	15	-	-	-
t-Butyl alcohol (TBA)	ND	1.9	16	-	-	-
Carbon Disulfide	ND	1.1	1.6	-	-	-
Carbon Tetrachloride	ND	0.19	1.3	-	-	-
Chlorobenzene	ND	0.59	2.4	-	-	-
Chloroethane	ND	0.35	1.3	-	-	-
Chloroform	ND	0.58	2.5	-	-	-
Chloromethane	ND	0.52	1.0	-	-	-
Cyclohexane	ND	1.6	18	-	-	-
Dibromochloromethane	ND	1.1	4.4	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.074	0.12	-	-	-
1,2-Dibromoethane (EDB)	ND	0.025	0.078	-	-	-
1,2-Dichlorobenzene	ND	0.95	3.0	-	-	-
1,3-Dichlorobenzene	ND	0.94	3.0	-	-	-
1,4-Dichlorobenzene	ND	0.97	3.0	-	-	-
Dichlorodifluoromethane	ND	0.56	2.5	-	-	-
1,1-Dichloroethane	ND	0.50	2.0	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.58	2.0	-	-	-
1,1-Dichloroethene	ND	0.40	2.0	-	-	-
cis-1,2-Dichloroethene	ND	0.43	2.0	-	-	-
trans-1,2-Dichloroethene	ND	0.45	2.0	-	-	-
1,2-Dichloropropane	ND	0.59	2.4	-	-	-
cis-1,3-Dichloropropene	ND	0.71	2.3	-	-	-
trans-1,3-Dichloropropene	ND	0.86	2.3	-	-	-
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	1.8	3.6	-	-	-
Diisopropyl ether (DIPE)	ND	0.55	2.1	-	-	-
1,4-Dioxane	ND	0.71	1.9	-	-	-
Ethanol	ND	3.8	95	-	-	-

Ninyo & Moore
12/02/2024 - 12/03/2024
12/02/2024 - 12/03/2024
GC24
SoilGas
403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	307071
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^3$
Sample ID:	MB/LCS/LCSD-307071

Analyte	MB Result	MDL	RL	SPK Val	MB IS/SS %REC	MB IS/SS Limits
Ethyl acetate	ND	0.63	1.9	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.68	2.1	-	-	-
Ethylbenzene	ND	0.51	2.2	-	-	-
4-Ethyltoluene	ND	0.61	2.5	-	-	-
Freon 113	ND	1.0	3.9	-	-	-
Heptane	ND	2.4	21	-	-	-
Hexachlorobutadiene	ND	0.38	2.2	-	-	-
Hexachloroethane	ND	2.7	4.9	-	-	-
Hexane	ND	2.2	18	-	-	-
2-Hexanone	ND	1.6	2.1	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.94	2.1	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.43	1.9	-	-	-
Methylene chloride	ND	0.82	8.8	-	-	-
Methyl methacrylate	ND	0.65	2.1	-	-	-
Naphthalene	ND	1.9	2.7	-	-	-
Styrene	ND	0.62	2.2	-	-	-
1,1,1,2-Tetrachloroethane	ND	1.2	3.5	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.10	0.70	-	-	-
Tetrachloroethene	ND	1.1	3.5	-	-	-
Tetrahydrofuran	ND	0.82	3.0	-	-	-
Toluene	ND	0.89	1.9	-	-	-
1,2,4-Trichlorobenzene	ND	2.7	3.8	-	-	-
1,1,1-Trichloroethane	ND	0.71	2.8	-	-	-
1,1,2-Trichloroethane	ND	0.85	2.8	-	-	-
Trichloroethene	ND	0.69	2.8	-	-	-
1,2,3-Trichloropropane	ND	0.89	3.1	-	-	-
Trichlorofluoromethane	ND	0.78	2.9	-	-	-
1,2,4-Trimethylbenzene	ND	1.2	2.5	-	-	-
1,3,5-Trimethylbenzene	ND	0.73	2.5	-	-	-
Vinyl Acetate	ND	1.1	18	-	-	-
Vinyl Chloride	ND	0.14	0.26	-	-	-
m,p-Xylene	ND	1.1	4.4	-	-	-
o-Xylene	ND	0.39	2.2	-	-	-

Client:	Ninyo & Moore
Date Prepared:	12/02/2024 - 12/03/2024
Date Analyzed:	12/02/2024 - 12/03/2024
Instrument:	GC24
Matrix:	SoilGas
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	307071
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^3$
Sample ID:	MB/LCS/LCSD-307071

Analyte	MB Result	MDL	RL	SPK Val	MB IS/SS %REC	MB IS/SS Limits
Surrogate Recovery						
1,2-DCA-d4	1100			1000	106	70-130
Toluene-d8	980			1000	98	70-130
4-BFB	880			1000	88	70-130

Client:	Ninyo & Moore
Date Prepared:	12/02/2024 - 12/03/2024
Date Analyzed:	12/02/2024 - 12/03/2024
Instrument:	GC24
Matrix:	SoilGas
Project:	403151011; City of SSF-MSB
Matrix: Project:	SoilGas 403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	307071
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^3$
Sample ID:	MB/LCS/LCSD-307071

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	19	16	12	157,F7	136	60-140	14.2	25
Acrolein	8.2	8.5	11.6	71	73	60-140	3.18	25
Acrylonitrile	14	13	11	125	120	60-140	4.42	25
tert-Amyl methyl ether (TAME)	19	20	21	90	95	60-140	4.66	25
Benzene	13	14	16	82	89	60-140	8.03	25
Benzyl chloride	29	25	26.6	110	95	60-140	14.9	25
Bromodichloromethane	38	41	35	108	117	60-140	7.81	25
Bromoform	57	59	52.6	108	112	60-140	3.49	25
Bromomethane	17	19	19.6	87	96	60-140	10.7	25
1,3-Butadiene	5.3	5.9	11	48,F2	54,F2	60-140	11.0	25
2-Butanone (MEK)	16	15	15	108	101	60-140	6.44	25
t-Butyl alcohol (TBA)	16	15	15.6	101	96	60-140	5.11	25
Carbon Disulfide	12	14	16	72	88	60-140	20.3	25
Carbon Tetrachloride	35	38	32	109	118	60-140	8.14	25
Chlorobenzene	26	27	23.6	108	113	60-140	3.84	25
Chloroethane	8.6	9.4	13.6	63	69	60-140	9.40	25
Chloroform	27	29	24.6	108	118	60-140	8.32	25
Chloromethane	9.2	9.8	10.6	87	92	60-140	5.87	25
Cyclohexane	16	17	17.6	89	95	60-140	6.18	25
Dibromochloromethane	44	46	43.6	100	105	60-140	4.73	25
1,2-Dibromo-3-chloropropane	86	76	49	175,F7	156,F7	60-140	11.7	25
1,2-Dibromoethane (EDB)	45	47	39	116	121	60-140	4.42	25
1,2-Dichlorobenzene	45	45	30.6	146,F7	147,F7	60-140	0.297	25
1,3-Dichlorobenzene	40	40	30.6	132	130	60-140	1.43	25
1,4-Dichlorobenzene	36	36	30.6	118	117	60-140	1.03	25
Dichlorodifluoromethane	25	27	25	100	109	60-140	7.89	25
1,1-Dichloroethane	19	21	20.6	93	103	60-140	9.89	25
1,2-Dichloroethane (1,2-DCA)	22	23	20.6	105	113	60-140	7.77	25
1,1-Dichloroethene	19	20	20	94	99	60-140	4.96	25
cis-1,2-Dichloroethene	19	21	20	95	104	60-140	8.73	25
trans-1,2-Dichloroethene	18	19	20	92	97	60-140	5.90	25
1,2-Dichloropropane	21	23	23.6	90	98	60-140	8.27	25
cis-1,3-Dichloropropene	24	25	23	102	108	60-140	5.29	25
trans-1,3-Dichloropropene	24	25	23	105	107	60-140	2.54	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	32	35	35.6	91	99	60-140	8.61	25
Diisopropyl ether (DIPE)	20	21	21	94	100	60-140	6.21	25
1,4-Dioxane	21	21	18.6	111	114	60-140	2.89	25
Ethanol	10	7.2	9.6	 107	75	60-140	35.8,F2	25

Client:	Ninyo & Moore
Date Prepared:	12/02/2024 - 12/03/2024
Date Analyzed:	12/02/2024 - 12/03/2024
Instrument:	GC24
Matrix:	SoilGas
Project:	403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	307071
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^3$
Sample ID:	MB/LCS/LCSD-307071

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Ethyl acetate	20	21	18.6	108	112	60-140	3.49	25
Ethyl tert-butyl ether (ETBE)	19	21	21	93	98	60-140	5.40	25
Ethylbenzene	22	23	22	98	104	60-140	5.22	25
4-Ethyltoluene	26	27	25	103	107	60-140	3.62	25
Freon 113	37	40	39	94	103	60-140	8.93	25
Heptane	20	21	21	94	100	60-140	6.80	25
Hexachlorobutadiene	77	77	54	143,F7	143,F7	60-140	0.507	25
Hexachloroethane	52	50	49.2	105	102	60-140	3.51	25
Hexane	15	16	18	85	91	60-140	6.55	25
2-Hexanone	22	25	21	106	121	60-140	13.4	25
4-Methyl-2-pentanone (MIBK)	22	22	21	103	106	60-140	3.17	25
Methyl-t-butyl ether (MTBE)	16	17	18.6	87	94	60-140	7.47	25
Methylene chloride	18	19	17.6	101	107	60-140	6.10	25
Methyl methacrylate	20	21	20.8	96	99	60-140	2.76	25
Naphthalene	45	42	26.5	169,F7	160,F7	60-140	5.69	25
Styrene	24	24	21.6	110	111	60-140	0.613	25
1,1,1,2-Tetrachloroethane	41	43	35	117	123	60-140	5.03	25
1,1,2,2-Tetrachloroethane	36	38	35	104	108	60-140	4.18	25
Tetrachloroethene	35	38	34.4	102	110	60-140	7.63	25
Tetrahydrofuran	15	16	15	103	104	60-140	1.41	25
Toluene	18	19	19	96	101	60-140	4.84	25
1,2,4-Trichlorobenzene	72	67	37.6	193,F7	178,F7	60-140	7.79	25
1,1,1-Trichloroethane	27	30	27.6	98	108	60-140	9.09	25
1,1,2-Trichloroethane	29	30	27.6	103	110	60-140	6.43	25
Trichloroethene	26	28	27.6	94	103	60-140	8.86	25
1,2,3-Trichloropropane	36	36	30.64	118	118	60-140	0.676	25
Trichlorofluoromethane	35	38	28.6	121	133	60-140	9.67	25
1,2,4-Trimethylbenzene	28	29	25	112	115	60-140	2.25	25
1,3,5-Trimethylbenzene	25	26	25	101	104	60-140	2.74	25
Vinyl Acetate	19	19	18	103	108	60-140	4.11	25
Vinyl Chloride	7.2	7.8	13	56,F2	60	60-140	7.64	25
m,p-Xylene	42	43	44	95	99	60-140	3.73	25
o-Xylene	23	23	22	103	105	60-140	1.59	25

Ninyo & Moore
12/02/2024 - 12/03/2024
12/02/2024 - 12/03/2024
GC24
SoilGas
403151011; City of SSF-MSB

WorkOrder:	2411F09
BatchID:	307071
<b>Extraction Method:</b>	TO15
Analytical Method:	TO15
Unit:	$\mu g/m^3$
Sample ID:	MB/LCS/LCSD-307071

	QC Su	mmary H	Report for <b>T</b>	015				
Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
1,2-DCA-d4	1100	1100	1000	105	107	70-130	1.74	25
Toluene-d8	940	930	1000	94	93	70-130	1.08	25
4-BFB	1100	1100	1000	111	107	70-130	3.28	25

#### McCampbell Analytical, Inc. 1534 Willow Pass Rd



Page 1 of 1

□J-flag

11/22/2024

11/22/2024

11

12

5 days;

ThirdParty

10

Pittsburg, CA 94565-1701			WorkOrd	ler: 2411F0	9	Client	tCode:	NMC	)		
(925) 252-9262	WaterTrax		DF EQuIS	B Dry-W	eight	🖌 Email	[	Hard	Сору	Th	nirdPa
			Detect	tion Summary		Excel	[A1_St	tandar	d_QC	l	
Report to:				Bill to:					Requ	lested	TAT:
Gregory Roberts Ninyo & Moore 1301 Marina Village Parkway, S Alameda, CA 94501 (408) 435-9000 FAX: (510) 63	Email: gro cc/3rd Party: uite 110 PO: Project: 403 33-5646	berts@ninyoandmoore 3151011; City of SSF-N	.com ISB	Accounts Ninyo & M 1301 Mari Alameda, nmaccour	Payable loore na Villag CA 9450 ntspayab	ge Parkwa )1 Ie@ninyo	ay, Suit bandmo	te 110 pore.c	Date Date	e Rece e Logg	ived: ged:
						Req	uested	Tests (	See le	gend b	elow)
Lab ID	ClientSampID	Matrix	Collection Date	Hold 1	2	3 4	5	6	7	8	9
[								1		1	1

2411F09-001	SV-1	SoilGas	11/20/2024 07:53	А	А	А			
2411F09-002	SSV-2	SoilGas	11/20/2024 08:32	А	A	А			
2411F09-003	SSV-3	SoilGas	11/20/2024 09:26	А	A	Α			
2411F09-004	SV-4	SoilGas	11/20/2024 10:22	А	A	Α			
2411F09-005	Unused Summa	SoilGas	<not provided=""></not>		A				

#### Test Legend:

1	ATMOSPHERICGAS_SG(%)
5	
9	

2	HELIUM_LC_SOILGAS(%)
6	
10	

3	PRUNUSEDSUMMA
7	
11	

4	TO15_Scan-SIM_SOIL(UG/M3)
8	
12	

#### **Project Manager: Jennifer Lagerbom**

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup TO15He\_\_O2\_SG(UG/M3).

#### **Comments:**

NOTE: Soil samples are discarded 60 days after receipt unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

#### Prepared by: Valerie Alfaro



### WORK ORDER SUMMARY

Client Name:NINClient Contact:GreeContact's Email:gro	Projec Comm	t: 40315	Work O QC I Date Lo	Work Order: 2411F09 QC Level: LEVEL 2 Date Logged: 11/22/2024							
	WaterT	rax CLIP	EDF	✓	Excel	EQuIS	<b>∢</b> Ema	ail 🗌 HardCopy	Third	IParty ⊡J-flaç	9
LabID ClientSamp	ID Matrix	Test Name		Cont./ Comp.	Bottle & Preservative	U** Head e Space	Dry- Weight	Collection Date t & Time	TAT	Test Due Date	Sediment Hold Sub Content Out
001A SV-1	SoilGas	TO15 w/ Helium plus O2		1	1L Summa			11/20/2024 7:53	5 days	12/3/2024	
002A SSV-2	SoilGas	TO15 w/ Helium plus O2		1	1L Summa			11/20/2024 8:32	5 days	12/3/2024	
003A SSV-3	SoilGas	TO15 w/ Helium plus O2		1	1L Summa			11/20/2024 9:26	5 days	12/3/2024	
004A SV-4	SoilGas	TO15 w/ Helium plus O2		1	1L Summa			11/20/2024 10:22	5 days	12/3/2024	

NOTES: \* STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- ISM prep requires 5 to 10 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 6 to 11 days from sample submission). Due date listed on WO summary will not accurately reflect the time needed for sample preparation.

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

U<sup>\*\*</sup> = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.

#### Summa COC

	2111	FAQ
MAI Work Order #	641	100

McCAMPBELL ANALYTICAL, INC.						CHAIN OF CUSTODY RECORD															
	534 Will	ow Pass R	d. Pittsbu	ırg, Ca. 94565-170	1	Turn .	Aroun	l Time	:1 Day	Rush		2 Day	Rush		3 Day	Rush		STD	$\times$	Quote #	
Т	elephone	: (877) 25	2-9262 / 1	Fax: (925) 252-926	59	J-Flag / MDL ESL			ESL		Cleanup Approved				Bottle Order #						
www.mcca	ampbell.	com		main@mccampb	ell.com	Deliv	ery Fo	rmat:	PDF	×	Geo	Tracke	r EDF		EDD	×	Wr	ite On	(DW)	1	EQuIS
Report To: Gregory Roll	icts		Bill To:	Gregory A	Roleits				A	nalys	is Re	quest	ed				Helium	n Shroud	I SN#		
Company: Ningo and Hoose									o,	, an		le						Leal	k Chec	ek Default is	IPA
Email: groberts@ninyoc	and mos	R. CON	า						le, C	Cthyle		(circ		-			Notes	: Please	e speci	fy units if di	fferent than
Alt Email:			Tele:	4084359	000	Notes			H, Formaldehyc	fethane, Ethane, F CO) %		Aromatic		1, 1,			defaul	lt: VOC	Cs is re	ported in µg	/m <sup>3</sup> , fixed
Project Name: CITY OF SSFI	Mari C	THER	Project#:	403151011		See								flora			×H	elium	n Vi	ealt Ch	eck
Project Location: 33 ANDYO	Drive	Suth ?	SF PO #			m <sup>3</sup> )-	g/m <sup>3</sup> )				2) %	ıd/or	ck %	Nor m <sup>3</sup>							
Sampler Signature:						/Brl) (	15 (µ	n <sup>3</sup> )	4PCI	O2. M	Ο <sub>2</sub> , Ν	tic ar	Che	(IPA,				Matrix	:	Can	ister
SAMPLE ID	Sampli	ng Start	End	Canister SN#	Sample Kit / Manifold #	TO-15	-OT to	u/đrl) (ž	vOCs) (inc.	Gas (C :ne,Prop	Gas: ((	Alipha g/m <sup>3</sup>	n Leak	Check ( oethane			lgas	or Air		Pressure	Vacuum
Location / Field Point	Date	Time	Time	Cumster or m		vocs	80101	()HAT	LEED Total	Fixed Acetyle	Fixed	APH: one) µ	Heliun	Leak			Soi	Indo		Initial	Final
50-1	11/20/29	0748	0753	1975-2622	316-1450	×					×						X			-29	-5
551-2	Í	0826	0832	R 1992-2619	316 -1327	×					×						×			-29	-5
558-3		0920	0926	R 2,036-260	316-1329	×					$\times$						×			-28	-5
5 V-4	V	1016	1022	2011-2633	316-675	$\times$					$\times$						$\times$			-30	-5
**MAL cliente MUCT disclose onu denorme	ahamiaalal	un a sum ta ba								·	<i>c</i> .	L				1				L	

ts MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI MAI chie staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	Comments / Instructions
Lev Shnaider Minyo on & Morre	11/20 (94	1425	Alingo ous Hose Moucha office	11/20/20	24 14;	26
(Then Ramos INingo & Moure	11/22/24	11:25an	montonas	11/2-2/24	1125	]
ManhAr	11/22/24	146	Aldri Ch	11/22/2	1416	]
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			V			



## Sample Receipt Checklist

Client Name: Project:	Ninyo & Moore 403151011; City of SSF-MSB				D D R	Date and Time Received: Date Logged: Received by:	11/22/2024 14:16 11/22/2024 Valerie Alfaro
WorkOrder №: Carrier:	2411F09 <u>Antonio Mason (MAI</u>	Matrix: <u>SoilGas</u> Courier)			L	ogged by:	Valerie Alfaro
Chain of Custody (COC) Information							
Chain of custody present?				✓	No		
Chain of custody signed when relinquished and received?			Yes	✓	No		
Chain of custody agrees with sample labels?			Yes	✓	No	]	
Sample IDs noted by Client on COC?			Yes	✓	No	]	
Date and Time of collection noted by Client on COC?			Yes	✓	No	]	
Sampler's name noted on COC?			Yes		No 🗸		
COC agrees with Quote?			Yes		No 🗌	□ NA 🗹	
Sample Receipt Information							
Custody seals intact on shipping container/cooler?			Yes		No 🗌	□ NA 🗹	
Custody seals intact on sample bottles?			Yes		No 🗌	□ NA 🗹	
Shipping container/cooler in good condition?			Yes		No 🗌	]	
Samples in proper containers/bottles?			Yes	$\checkmark$	No 🗌	]	
Sample containers intact?			Yes	✓	No 🗌	]	
Sufficient sample volume for indicated test?			Yes	✓	No	]	
Sample Preservation and Hold Time (HT) Information							
All samples received within holding time?			Yes	✓	No	. NA □	
Samples Received on Ice?			Yes		No 🗸	•	
Sample/Temp Blank temperature				Temp:			
			Ves		No		
requirement (VO	Cs, TPHg/BTEX, RSK	()?	163				
Sample labels checked for correct preservation?			Yes	✓	No		
pH acceptable upon receipt (Metal: <2)?			Yes		No	NA 🗹	
pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?			Yes		No 🗌	NA 🗹	
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?			Yes		No	NA 🗹	



1301 Marina Village Parkway, Suite 110 | Alameda, California 94501 | p. 510.343.3000

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ninyoandmoore.com

