

AllWest Environmental

INDOOR AIR QUALITY MONITORING REPORT

2550 Irving Street, San Francisco, California 94122



PREPARED FOR:

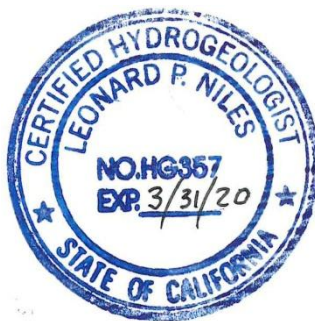
San Francisco Police Credit Union
2550 Irving Street
San Francisco, CA 94122

ALLWEST PROJECT 19086.28
August 29, 2019

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INDOOR AIR QUALITY MONITORING REPORT

2550 Irving Street, San Francisco, California 94122

I. EXECUTIVE SUMMARY

AllWest Environmental, Inc. (AllWest) conducted an indoor air quality monitoring event on August 19 and 20, 2019 at the subject site referenced above (Figures 1 and 2). The purpose of the investigation was to further assess the potential impact to indoor air quality at the subject property by soil vapor intrusion resulting from the release of the dry cleaning solvent tetrachloroethene (PCE) and its breakdown products from former dry cleaning activities in the site vicinity.

This executive summary is provided solely for the purpose of overview. Any party who relies on this report must read the full report. The executive summary may omit details, any one of which could be crucial to the proper understanding and risk assessment of the subject matter.

To assess potential vapor intrusion impact to the subject property building, four indoor air quality (IAQ) samples (IAQ-1 to IAQ-4) were collected within the first floor of the San Francisco Police Credit Union (SFPCU) building. IAQ-1 was located behind the bank teller counter, IAQ-2 was located in the central portion of the bank floor, IAQ-3 was located in the bathroom, and IAQ-4 was located near the southwest corner of the SFPCU building. One outdoor ambient air (OAA) control sample (OAA-1) was also collected within a fenced-in area situated adjacent to the western exterior wall of the SFPCU building. The IAQ and OAA samples were collected over a 24-hour period from August 19 to August 20, 2019. IAQ and OAA sample locations are shown on Figure 2.

The IAQ and OAA samples were analyzed by EPA Method TO-15 SIM for PCE and its breakdown products trichloroethene (TCE), 1,1-Dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE) and vinyl chloride.

PCE was detected in all four of the IAQ samples and in the OAA sample at concentrations ranging from 0.305 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in sample OAA-1 to 3.85 $\mu\text{g}/\text{m}^3$ in IAQ-1 and IAQ-2. Detected PCE concentrations in all four IAQ samples exceeded the applicable San Francisco Regional Water Quality Control Board (SFRWQCB) commercial/industrial indoor air Environmental Screening Level (ESL) of 2.0 $\mu\text{g}/\text{m}^3$ (based on direct exposure human health risk). The PCE breakdown products TCE and 1,1-DCE were detected in all OAA and IAQ samples at low concentrations not exceeding applicable ESLs. The PCE breakdown products cis-1,2-DCE, trans-1,2-DCE and vinyl chloride were not detected in any OAA or IAQ samples.

AllWest concludes that PCE soil vapor intrusion has impacted the indoor air quality of the subject site building and is a potential human health risk to building occupants.

AllWest recommends additional semiannual indoor air quality and sub-slab vapor monitoring of existing Vapor Pin™ probes be conducted during the winter season in accordance with Department of Toxic Substances Control (DTSC) protocols (DTSC, 2011). AllWest recommends this report and others assessing soil and groundwater conditions be submitted to the San Francisco Department of Public Health (SFPDH).

II. PROJECT BACKGROUND

A. Site Location and Description

The subject property, addressed as 2500-2500 Irving Street, is an irregularly-shaped parcel totaling approximately 0.44 acre, located in a mixed residential and commercial area in the Sunset district of San Francisco. The subject property is bound by 26th Avenue to the east, 27th Avenue to the west, Irving Street to the south and residential homes to the north. Access to the property is from Irving Street and/or 27th Avenue. The subject property is developed with a two-story approximately 18,561 square-foot office building and parking lot. The subject building is occupied by the San Francisco Police Credit Union (SFPCU). The subject property also includes two contiguous, rectangular undeveloped parcels, together comprising 0.12 acres, on the south side of Irving Street (employee parking lot parcels) between 26th and 27th Avenues at 2525 Irving Street. A site vicinity map is presented as Figure 1, and a site plan as Figure 2.

B. Previous Investigations

Phase I Environmental Site Assessment for 2525 and 2550 Irving Street, San Francisco, CA, AllWest Environmental (February 2019)

AllWest performed a Phase I Environmental Site Assessment (ESA) at the subject property in January and February 2019. The ESA conclusions were presented in the AllWest report titled *Environmental Site Assessment, 2525 & 2550 Irving Street, San Francisco, CA 94122* dated February 8, 2019. AllWest's land use review for the property indicates the SFPCU employee parking lot parcels on the south side of Irving Street as undeveloped prior to paving and striping as a parking lot in the early-1960s.

The credit union parcel was undeveloped prior to construction of two commercial structures on the middle of the parcel circa 1927 with occupancies including a variety of stores/shops and a clothes cleaner. Another building was constructed on the credit union parcel between the late-1920 and 1932, housing an undertaker through at least the mid-1950s.

From at least 1940 to the mid-1960s, gas stations operated at the 26th (2500 Irving) and 27th Avenue (2550 Irving) corners of the credit union parcel. In 1965, the original, eastern portion of the existing building was constructed on the parcel, occupied by a mortuary/funeral chapel. By 1968, the building increased in size to the current configuration and the customer parking lot added. The mortuary operated at the parcel through the mid-1980s. In 1988, the SFPCU initiated occupancy on the credit union parcel.

Significant quantities of hazardous materials are not present at the subject property; hazardous waste is not generated. Previous operators of the two gas stations, clothes cleaner and mortuary/undertaker at the subject property are expected to have stored/used hazardous materials in their site operations, although no documentation was available to confirm these assertions. There is no documentation or visual evidence of existing underground storage tanks (USTs) at the subject property.

With the exception of one building permit for installation of a waste oil UST at the 2550 Irving Street gas station (27th Avenue corner) in 1941, no records were available related to UST installations or removals at either subject property gas station. Following cessation of gas station operations, a 1963 aerial photograph of the 2550 Irving Street gas station location showed the concrete slabs associated with the former building and pump island(s) remaining but the structures removed. Subsequently, this area of the property was paved for the customer parking lot. The former location of the 2500 Irving Street gas station was redeveloped with the existing building (AllWest, 2019).

The approximate location of the former service station buildings, concrete slabs and presumed former USTs on the subject property are shown in Figure 2.

AllWest identified Recognized Environmental Conditions (REC) at the property from its historical land use activities as two gas stations (1940 – 1963) and clothes cleaner (1928 – 1949). AllWest also identified a REC on the subject property from an off-site concern, the former operation of a dry cleaning facility on an up-gradient/adjoining property (2511 Irving Street) for nearly 75 years. Based on the period of time in operation, as well as operation into the 2010s, AllWest assess possibility a dry cleaning solvent release has

occurred. Based on the location of the site with respect to the subject property, there is a moderately-low likelihood that impacted ground water from the subject property has migrated beneath the subject property.

Although not considered RECs, AllWest identified a moderate likelihood that USTs remain present on the 2550 Irving Street portion (27th Avenue/Irving Street corner) of the parcel, because concrete slab foundations of the station remained present following demolition of the gas station structures prior to paving of the area as the existing parking lot, and no construction has been completed on that area of the subject property.

AllWest recommended further assessment be performed at the subject property (AllWest, 2019).

Phase II Environmental Site Assessment for 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (May 2019)

AllWest conducted a subsurface investigation at the subject property on May 21, 2019, consisting of the advancement of five soil borings (B-1 through B-5) to 10 feet bgs and the installation of two temporary sub-slab Vapor Pin™ type probes inside the subject building (San Francisco Police Credit Union). Five selected soil samples (collected from each of the borings at approximately 4.5-5 feet bgs) were analyzed for total petroleum hydrocarbons as diesel and motor oil (TPH-d and TPH-mo) with silica gel cleanup, total petroleum hydrocarbons as gasoline (TPH-g), volatile organic compounds (VOCs), polynuclear aromatics (PNAs) and polyaromatic hydrocarbons (PAHs), and LUFT-5 metals (cadmium, chromium, lead, nickel and zinc). The two soil vapor samples were analyzed for tetrachloroethene (PCE) and its degradation products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE) and vinyl chloride, and the leak detection gas helium.

No COCs were detected in any soil samples at concentrations exceeding applicable SFRWQCB ESLs and/or State of California Title 22 TTLC, STLC or TCLP levels. PCE was detected in the sub-slab soil vapor samples collected from VP-1 and VP-2 at 530 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and $480 \mu\text{g}/\text{m}^3$ exceeding the applicable commercial/industrial SFRWQCB ESL of $67 \mu\text{g}/\text{m}^3$. None of the other analyzed constituents were detected above their respective laboratory detection limits.

A ground penetrating radar (GPR) scan of the western parking lot at 2550 Irving Street revealed no evidence of current or former underground storage tanks (USTs); however, a long, narrow anomaly was detected in the southwest corner that may be the former fuel dispenser island concrete slab.

AllWest recommended additional investigation at the subject property to delineate the extent and origin of PCE detected in soil vapor samples.

Phase II Environmental Site Assessment for 2525 Irving Street, San Francisco, CA, AllWest Environmental (August 2019)

AllWest conducted a subsurface investigation of the employee parking lot parcels on the south side of Irving Street at 2525 Irving Street on July 17, 2019, consisting of the advancement of two borings (B-6 and B-7) to 12 feet below ground surface (bgs) in the central portion of the parking lot and one boring (B-8) to approximately 47 feet bgs in the northeast corner of the parking lot. Two additional borings (SVP-1 and SVP-2) were advanced to 5.5 feet bgs on the northeast side of the parking lot adjacent to the former dry cleaner at 2511 Irving Street. Two temporary soil vapor probes were installed at a depth of 5 feet bgs within these borings. Groundwater was not encountered in any of the borings.

Sixteen soil samples were collected from the five borings. Ten selected soil samples collected from borings B-6, B-7, SVP-1 and SVP-2 at depth intervals of 1-1.5 feet bgs and 4.5-5 feet bgs, and from borings B-6 and B-7 at depth intervals of 9.5-10 feet bgs, were analyzed for TPH-d and TPH-mo with silica gel cleanup, total petroleum TPH-g, VOCs and LUFT-5 metals. Two selected soil samples collected from boring B-8 at depth intervals of 4.5-5 feet bgs and 9.5-10 feet bgs were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride. Soil vapor samples collected from temporary probes SVP-1 and SVP-2 were analyzed for PCE, its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride, and the leak detection gas helium.

No constituents of concern (COCs) were detected in any soil samples at concentrations exceeding applicable San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening

Level (ESLs) and/or State of California Title 22 Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) or Toxic Characteristic Leaching Procedure (TCLP levels).

PCE was detected in soil vapor samples collected from borings SVP-1 and SVP-2 at 1,800 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and 1,300 $\mu\text{g}/\text{m}^3$, exceeding the applicable commercial/industrial SFRWQCB ESL of 67 $\mu\text{g}/\text{m}^3$. No other COCs were detected in soil vapor samples.

AllWest concluded the subject 2525 Irving Street parcel had been impacted by a PCE soil vapor plume likely originating from the adjacent former dry cleaner at 2511 Irving Street. AllWest recommended additional investigation to delineate the extent and origin of the PCE soil vapor plume and potential impact to groundwater at the subject 2525 Irving Street parcel.

Phase II Environmental Site Assessment for 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (August 2019)

AllWest conducted a subsurface investigation on July 17 and 18, 2019 at 2500-2550 Irving Street. On July 17, 2019, boring B-9 was advanced to a depth of approximately 52 feet bgs in the northeast corner of the driveway west of the SFPCU building (2550 Irving Street). Boring B-8 was advanced to approximately 47 feet bgs at the northeast corner of the 2525 Irving Street employee parking lot parcel.

On July 18, 2019, four semi-permanent sub-slab Vapor Pins™ (VP-1A, VP-2A, VP-3 and VP-4) were installed within the SFPCU building at 2550 Irving Street and one soil boring (B-10) was advanced to approximately 40 feet bgs within the landscaped sidewalk area of the subject site parcel (2550 Irving Street). Boring and vapor pin locations are shown on Figure 2. Groundwater was not encountered during the investigation.

Soil samples were collected from borings B-8, B-9 and B-10 at depth intervals of 1-1.5 feet bgs, 4-4.5 feet bgs, 9.5-10 feet bgs, 19.5-20 feet bgs, 29.5-30 feet bgs and 39.5-40 feet bgs. Samples were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride. No COCs were detected in analyzed soil samples. No groundwater samples were collected or analyzed.

One soil vapor sample was collected from each sub-slab Vapor Pin™ probe (VP-1A, VP-2A, VP-3 and VP-4) on July 19, 2019. Collected soil vapor samples were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride and the leak detection gas helium. PCE was detected in all soil vapor samples at concentrations ranging from 270 to 1,100 $\mu\text{g}/\text{m}^3$, exceeding the applicable commercial/industrial SFRWQCB sub-slab soil gas vapor intrusion ESL of 67 $\mu\text{g}/\text{m}^3$.

No other COCs were detected in any soil vapor samples at concentrations exceeding applicable ESLs.

In addition to collecting semi-annual sub slab soil vapor samples in early 2020, AllWest recommended an indoor air quality assessment be conducted at the property to evaluate PCE concentrations above the slab within the Credit Union building. AllWest also recommended another attempt be made to collect groundwater samples at the property.

III. PURPOSE AND SCOPE OF WORK

The purpose of the performed work was to further evaluate a potential vapor intrusion impact to indoor air quality due to the release of PCE dry cleaning solvents as recommended in our *Phase II Subsurface Investigation* report dated August 19, 2019.

The scope of work as performed consisted of the following tasks:

- 1) Collected four indoor air quality (IAQ) samples (IAQ-1 through IAQ-4) on the first floor of the SFPCU building and one outdoor ambient air (OAA) control sample (OAA-1). IAQ-1 was located behind the bank teller counter, IAQ-2 was located in the central portion of the bank floor, IAQ-3 was located in the bathroom, and IAQ-4 was located near the southwest corner of the SFPCU building. The OAA sample OAA-1 was collected from within a fenced-in area situated adjacent to the western exterior wall of the

SFPCU building. Sample locations are shown on Figure 2. The IAQ and OAA samples were collected over a 24-hour period per procedures outlined in the DTSC *Final – Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, October 2011;

- 2) Maintained samples under chain-of-custody and transported the samples to a California SWRCB, ELAP certified analytical laboratory (Torrent Laboratory, LLC of Milpitas, California) for chemical analyses. Analyzed IAQ and OAA samples for PCE and its degradation products TCE, 1,1-dichloroethene (1,1-DCE), cis-1,2-DCE, trans-1,2-DCE and vinyl chloride.
- 3) Prepared a written report describing the field activities, summarizing the laboratory data, presenting investigation findings, and providing conclusions and recommendations.

IV. MONITORING ACTIVITIES

A. Indoor Air Quality and Outdoor Ambient Air Sampling

Prior to indoor air quality sampling activities, AllWest surveyed building characteristics and household chemicals and hazardous materials potentially containing VOCs stored at the subject property. Several chemical products were stored in a janitorial closet and break room located on the second floor of the SFPCU. Products included household cleaners, paint, rust remover, etc. The products contained various VOCs, but were not observed to contain PCE or its breakdown products. Building survey forms are included in Appendix B. Hazardous material survey forms are included in Appendix C.

To further evaluate the potential indoor air quality impact of VOC soil vapor intrusion from beneath the concrete building floor slabs, four IAQ samples (IAQ-1 through IAQ-4) were collected from the first floor of the SFPCU building. IAQ-1 was located behind the bank teller counter in the western portion of the building, IAQ-2 was located in the central portion of the bank floor, IAQ-3 was located in the bathroom, and IAQ-4 was located near the southeast corner of the SFPCU building.

One OAA control sample (OAA-1) was collected within a fenced-in area situated adjacent to the western exterior wall of the SFPCU building.

AllWest collected air quality samples in laboratory prepared 6-liter capacity SUMMA canisters. Flow rates of approximately 3.47 milliliters per minute (ml/min) were used to fill the canisters over an 24-hour period. The canisters were filled to approximately 80% of capacity, or 5 inches of mercury (in Hg) vacuum.

Pertinent field observations, pressure, times and readings were recorded. Air quality field sampling logs are included in Appendix B. Sampling was conducted in general accordance with the DTSC *Final, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)* (DTSC, 2011).

B. Sample Preservation, Storage and Handling

To prevent the loss of constituents of interest, all SUMMA canisters were removed from the manifold, labeled with sampling information, including initial and final vacuum pressures, and placed in a dark container for transport to the analytical laboratory.

C. Chain-Of-Custody Program

All samples collected for this project were transported under chain-of-custody protocol. The chain-of-custody program allows for the tracing of possession and handling of individual samples from the time of field collection through laboratory analysis. The document includes the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, SUMMA canister and flow controller ID numbers, initial and final SUMMA

canister vacuums, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. Upon delivery to the laboratory the document will also include the name of the person receiving the samples, and date and time samples were received. Chain of custody documents are included in Appendix D.

V. ASSESSMENT FINDINGS

A. Laboratory Analyses and Sampling Data

All air sample analysis was performed by a State of California ELAP certified independent analytical laboratory, Torrent Laboratory, LLC of Milpitas, California. Four IAQ samples and one OAA control sample were analyzed for PCE and its degradation products TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride.

- PCE was detected in all four of the IAQ samples at concentrations ranging from 2.67 $\mu\text{g}/\text{m}^3$ in sample IAQ-2 to 3.85 $\mu\text{g}/\text{m}^3$ in samples IAQ-1 and IAQ-2. PCE was detected in OAA sample OAQ-1 at a concentration of 0.305 $\mu\text{g}/\text{m}^3$.
- 1,1- DCE and TCE were detected in all five air samples, but at concentrations below their respective applicable ESLs.

No other COCs were detected in any indoor air samples analyzed. Indoor and outdoor air analytical data is summarized in Table 1. The laboratory analytical report is included in Appendix D.

B. Laboratory Quality Assurance and Quality Control

A review of laboratory internal QA/QC report indicates the method blank and sample spike data for all analyses were within the laboratory recovery limits. The samples were also analyzed within the acceptable EPA holding times. The data from Torrent Laboratory is considered to be of good quality. Laboratory QA/QC reports and chain-of-custody records are included in Appendix D.

VI. DISCUSSION

A. Environmental Screening Levels

To assess if the identified COCs in indoor air pose a risk to human health and the environment, AllWest compared analytical data generated during this investigation to ESLs for commercial/industrial land use. The ESLs are compiled by the Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) in *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs)*, Interim Final – January 23, 2019. ESLs used in this investigation were established using *Table IA-1: Indoor Air: Direct Exposure Human Health Risk Levels*, and *Table IA-2: Indoor Air: Odor Nuisance Levels*, (SFRWQCB, 2019).

Under most circumstances, the presence of a chemical at a concentration below the corresponding ESL is presumed to not pose a significant risk to human health or the environment. The ESLs for the subject site were established with the assumption of commercial/industrial property use.

B. Indoor Air Analytical Data Compared to Screening Levels

- PCE was detected in all four of the IAQ samples at concentrations ranging from 2.67 $\mu\text{g}/\text{m}^3$ in sample IAQ-2 to 3.85 $\mu\text{g}/\text{m}^3$ in samples IAQ-1 and IAQ-2. PCE was detected in OAA sample OAQ-1 at a concentration of 0.305 $\mu\text{g}/\text{m}^3$. All four IAQ samples exceeded the applicable commercial/industrial ESL of 2.0 $\mu\text{g}/\text{m}^3$ for PCE.

- 1,1- DCE and TCE were detected in all five air samples, but at respective maximum concentrations of 2.63 µg/m³ and 0.161 µg/m³, below their respective applicable ESLs of 310 µg/m³ and 3.0 µg/m³.

Analytical data are summarized in Table 1 and the laboratory analytical report is included in Appendix D.

VII. CONCLUSIONS AND RECOMMENDATIONS

Indoor air quality within the subject property building is impacted to levels above commercial/industrial ESLs by soil vapor intrusion of PCE, and presents a potential human health risk to subject building occupants. Although PCE concentrations in indoor air at the subject property have likely resulted from soil vapor intrusion; it has not been established whether the soil vapor contaminant plume originated from a former neighboring dry cleaning facility or from historical subject property land use including a gas station and potential dry cleaner. Further subsurface investigation is necessary to establish the source of the PCE soil vapor plume.

During our sub-slab soil vapor investigation in July 2019, the highest concentration of PCE was detected in the sample collected near the building's southwest corner (VP-1). However, the results of the IAQ sampling show the highest PCE concentrations were detected in samples collected in the western (IAQ-1) and central (IAQ-2) portions of the SFPCU building. The PCE distribution in indoor air may be influenced by the building ventilation system and may not necessarily correlate with locations of soil vapor samples containing elevated PCE concentrations.

AllWest recommends additional semiannual indoor air quality and sub-slab vapor monitoring of existing Vapor Pin™ probes be conducted during the winter season in accordance with the Department of Toxic Substances Control (DTSC) protocols (DTSC, 2011). AllWest recommends this report and other assessing soil and groundwater conditions be submitted to the San Francisco Department of Public Health (SFDPH).

VIII. LIMITATIONS

The work described in this report was performed in accordance with the Environmental Consulting Agreement between San Francisco Police Credit Union (Client) and AllWest Environmental, Inc, dated August 9, 2019. AllWest has prepared this report for the exclusive use of the Client for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representations, either expressed or implied are made as to the professional advice offered. The services provided for the Client were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions. No matter how much research and sampling may be performed, the only way to know about the actual composition and condition of the subsurface of a site is through excavation.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest is not responsible for the accuracy of the test data from an independent laboratory, or for any analyte quantities falling below the recognized standard detection limits or for the method utilized by the independent laboratories.

Background information that AllWest has used in preparing this report, including but not limited to previous field measurements, analytical results, site plans, and other data, has been furnished to AllWest by the Client, its previous consultants, and/or third parties. AllWest has relied on this information as furnished. AllWest is not responsible, for nor has it confirmed, the accuracy of this information.

IX. REFERENCES

AllWest Environmental, Inc. (AllWest), *Phase II Subsurface Investigation Report, 2525 Irving Street, San Francisco, California 94122*, August 19, 2019.

AllWest, *Phase II Subsurface Investigation Report, 2500-2550 Irving Street, San Francisco, California 94122*, August 19, 2019.

AllWest, *Environmental Site Assessment, 2525 & 2550 Irving Street, San Francisco, California 94122*, February 8, 2019.

State of California Department of Toxics Substance Control (DTSC) and California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), *Advisory – Active Soil vapor Investigations*. July 2015.

DTSC, *Frequently Asked Questions, 2012 Advisory – Active Soil Gas Investigations (ASGI)*, March 2013.

DTSC, *Final, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, October 2011.

State of California San Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB), *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs)*, Interim Final – January 24, 2019.

TABLES

Table 1
Summary of Indoor and Outdoor Air Analytical Data
2550 Irving Street
San Francisco, California 94122
AllWest Project No. 19086.28

Sample ID	Air Sample Start Date	Air Sample End Date	1,1-Dichloroethene (1,1-DCE) $\mu\text{g}/\text{m}^3$	cis-1,2-Dichloroethene (cis-1,2-DCE) $\mu\text{g}/\text{m}^3$	trans-1,2-Dichloroethene (trans-1,2-DCE) $\mu\text{g}/\text{m}^3$	Tetrachloroethane (PCE) $\mu\text{g}/\text{m}^3$	Trichloroethene (TCE) $\mu\text{g}/\text{m}^3$	Vinyl Chloride $\mu\text{g}/\text{m}^3$
OAQ-1	8/19/2019	8/20/2019	0.0357	ND (<0.0198)	ND (<0.0198)	0.305	0.0483	ND (<0.00768)
IAQ-1	8/19/2019	8/20/2019	1.70	ND (<0.0198)	ND (<0.0198)	3.85	0.0644	ND (<0.00768)
IAQ-2	8/19/2019	8/20/2019	1.56	ND (<0.0198)	ND (<0.0198)	3.85	0.161	ND (<0.00768)
IAQ-3	8/19/2019	8/20/2019	2.63	ND (<0.0198)	ND (<0.0198)	2.67	0.0859	ND (<0.00768)
IAQ-4	8/19/2019	8/20/2019	1.41	ND (<0.0198)	ND (<0.0198)	2.87	0.0698	ND (<0.00768)
SFRWQCB Tier 2 Commercial/Industrial ESLs, Direct Exposure			310	35	350	2.0	3.0	0.16

Notes:

Laboratory analyses by Eurofins Calscience, LLC, Garden Grove, CA

OAQ = Outdoor Air Quality (ambient air control sample)

IAQ = Indoor Air Quality

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

1,1-DCE = 1,1-Dichloroethene by EPA Method TO-15

cis-1,2-DCE = cis-1,2-Dichloroethene by EPA Method TO-15

trans-1,2-DCE = trans-1,2-Dichloroethene by EPA Method TO-15

PCE = perchloroethylene / tetrachloroethene by EPA Method TO-15

TCE = Trichloroethene by EPA Method TO-15

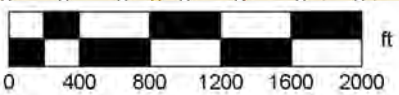
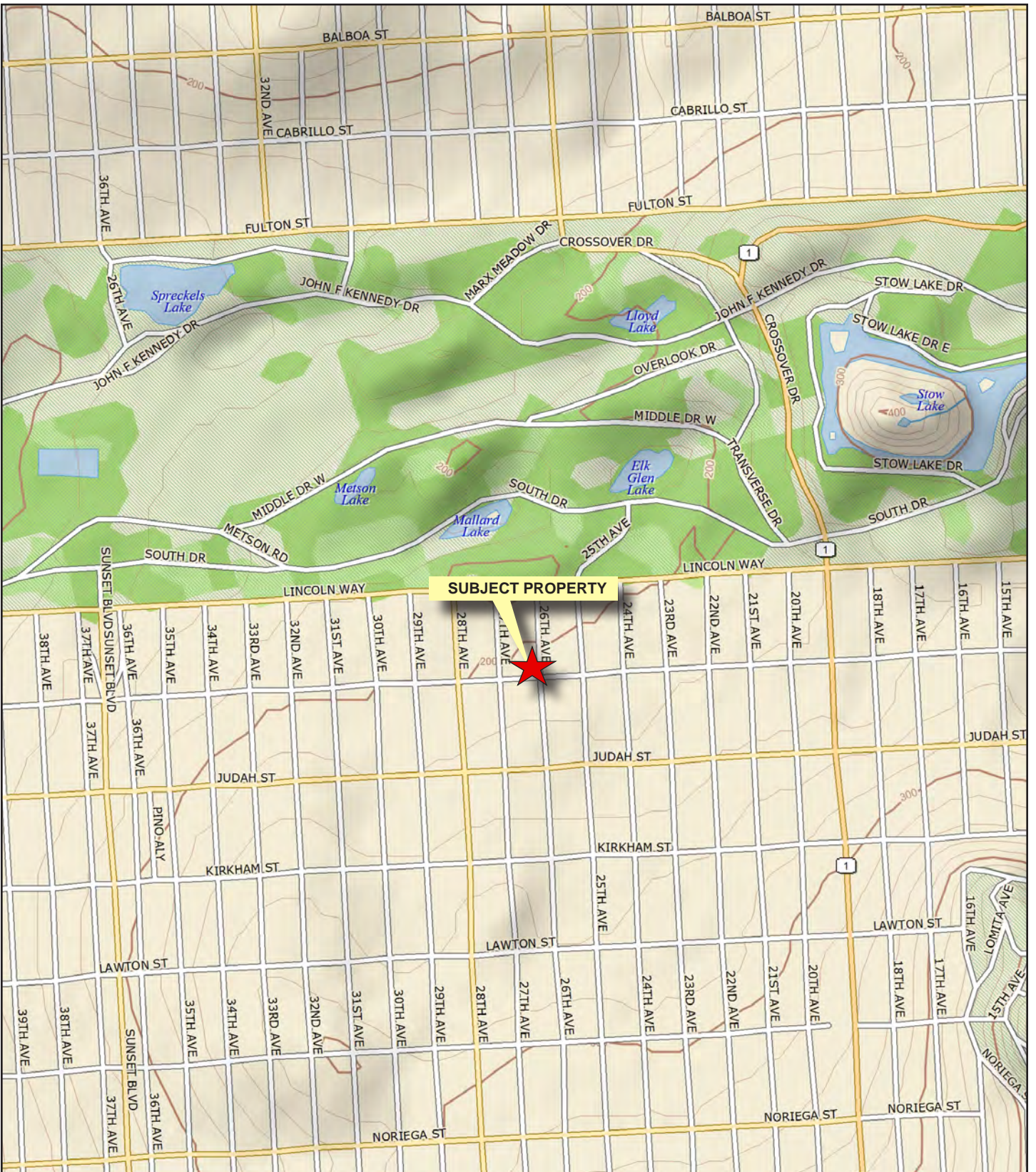
Vinyl chloride by EPA Method TO-15

ND = Not detected above the listed reporting limit

Bold Font = Detected values exceed regulatory screening levels.

SFRWQCB Tier 2 ESLs = San Francisco Regional Water Quality Control Board, *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Tier 2 ESLs from Table IA-1 - Indoor Air Direct Exposure: Human Health Risk Levels*, Interim Final - January 23, 2019.

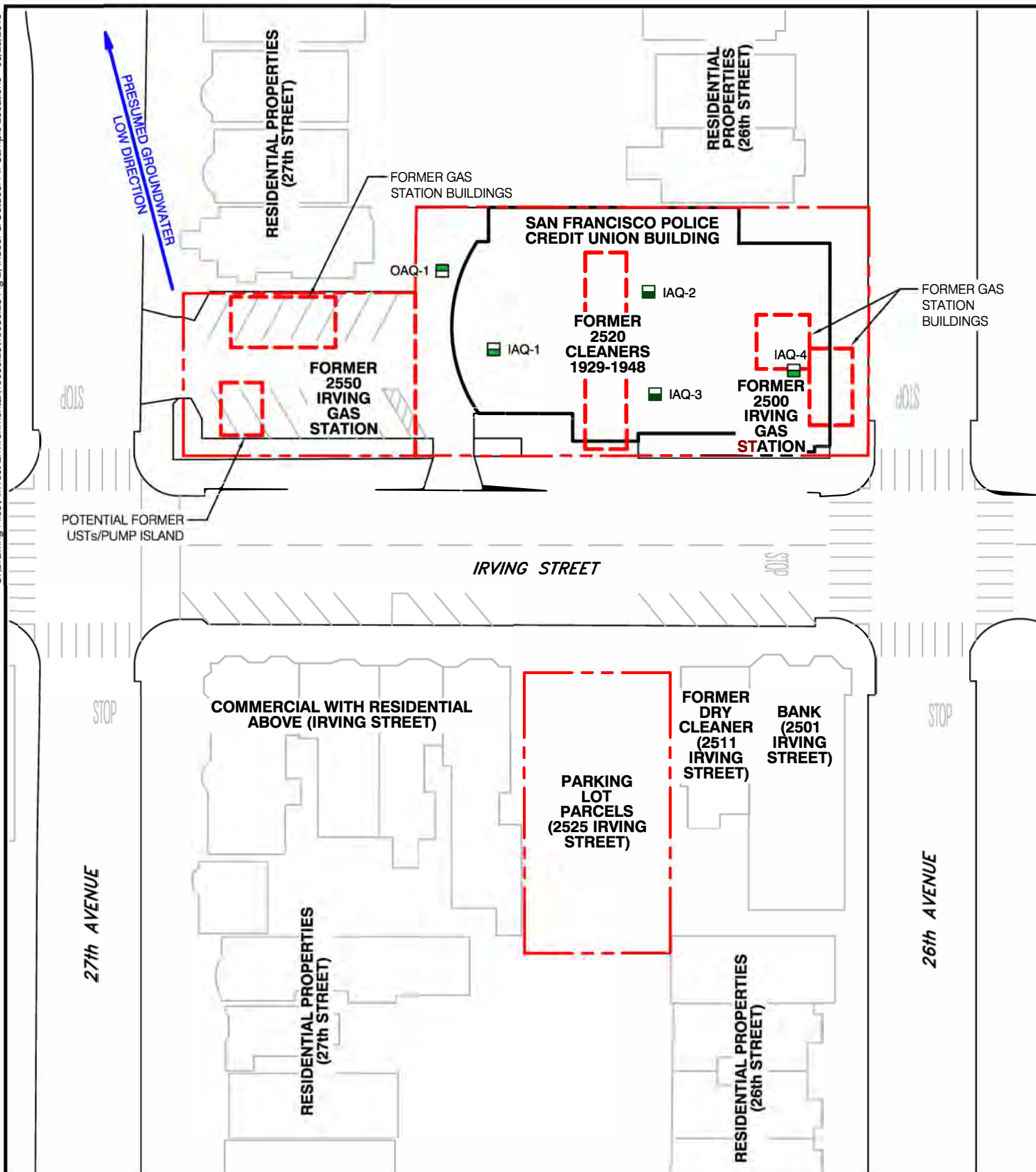
FIGURES






★
MN (13.8° E)

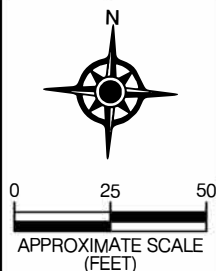

AllWest
PROJECT NO.
19086.28

VICINITY MAP
FIGURE 1
2550 IRVING STREET
SAN FRANCISCO, CA 94122
SOURCE: DELORME TOPO
PREPARED BY: D. CAMACHO
DATE: 8/29/19



LEGEND

- OAQ-4  Indoor Air Sample (AllWest, 8/19/19)
- OAQ-1  Outdoor Air Sample (AllWest, 8/19/19)
-  Approximate Property Boundaries



PROJECT NO.
19086.28

**FIGURE 2
INDOOR AND OUTDOOR
AIR SAMPLE LOCATIONS**

2500-2550 Irving Street
San Francisco, California

SOURCE: AllWest

DRAWN BY: CM

(08/28/2019)

APPENDIX A



STANDARD INDOOR AIR QUALITY SAMPLING PROCEDURES

Indoor air quality (IAQ) sampling is conducted in general accordance with the DTSC *Final, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, October 2011. Prior to collecting IAQ samples, AllWest will perform a survey of the building layout and conditions to determine optimum IAQ sample locations, and conduct an inventory of chemicals at the site that may affect IAQ sample data. Building and chemical survey forms per the DTSC *Vapor Intrusion Guidance* will be utilized.

To evaluate the potential indoor air quality impact of intrusion of petroleum hydrocarbons and VOCs in the vapor phase from soil beneath the concrete floor slab in site buildings, IAQ samples and typically one outdoor ambient air (OAA) control sample will be collected during two semiannual monitoring events at the subject site. IAQ samples will typically be located in the center of building spaces to evaluate conditions in primary work areas, addition to locations in restrooms or near floor drains to evaluate preferential pathway conduits such as sewer lines. IAQ and OAA samples will be collected in approximately the same locations during both sampling events.

During each sampling event, at least one outdoor OAA sample will be collected in a secure exterior area in the presumed upwind direction away from building walls or foundation slabs, inaccessible to the public, chosen to ensure that the SUMMA canister is not stolen or tampered with overnight. The OAA sample will be secured by lock and chain to an immovable object. OAA sample collection will start at least 30 minutes prior to the start of IAQ sampling, and will be terminated 30 minutes after the last IAQ sample.

AllWest will collect air quality samples in laboratory prepared SIM-certified 6-liter capacity SUMMA canisters. Flow rates of approximately 3.5 milliliters per minute (ml/min) are used to fill the canisters over a 24 hour period. The canisters are filled to approximate 80% of capacity. All pertinent field observations, pressure, times and readings are recorded. Sample containers are labeled, placed in a dark container and transported under chain-of-custody control to the California State-certified analytical laboratory, Calscience Environmental Laboratories, Inc. (Calscience) in Garden Grove, California. Other certified analytical laboratories may be used if necessary. An example of an indoor air quality field sampling log is included in Appendix C.

A second IAQ monitoring event will be performed approximately six months from the first event in order to evaluate any seasonal variability in sub-slab vapor conditions, as recommended in the DTSC *Vapor Intrusion Guidance* (DTSC, October 2011). The scope of work, number of samples and sampling methodology will be similar to those described above, except that samples will be collected over an 8-hour period at flow rates of 10.4 ml/min.

APPENDIX B

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: Sam Calloway Date/Time Prepared: 8/16/19
 Affiliation: Project manager Phone Number: 616-485-1448

Occupant Information

Occupant Name: SFPCU Interviewed: ☐ Yes ☐ No
 Mailing Address: 2550 Irving st., SF, CA
 City: SF State: CA Zip Code: 94123
 Phone: _____ Email: _____

Owner/Landlord Information (Check if same as occupant ☒)

Occupant Name: _____ Interviewed: ☐ Yes ☐ No
 Mailing Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Email: _____

Building Type (Check appropriate boxes)

☐ Residential ☐ Residential Duplex ☐ Apartment Building ☐ Mobile Home ☒ Commercial (office)
☐ Commercial (warehouse) ☐ Industrial ☐ Strip Mall ☐ Split Level ☐ Church ☐ School

Building Characteristics

Approximate Building Age (years): 55 Number of Stories: 2
 Approximate Building Area (square feet): 18,561 Number of Elevators: 1

Foundation Type (Check appropriate boxes)

☒ Slab-on-Grade ☐ Crawl Space ☐ Basement

Basement Characteristics (Check appropriate boxes)

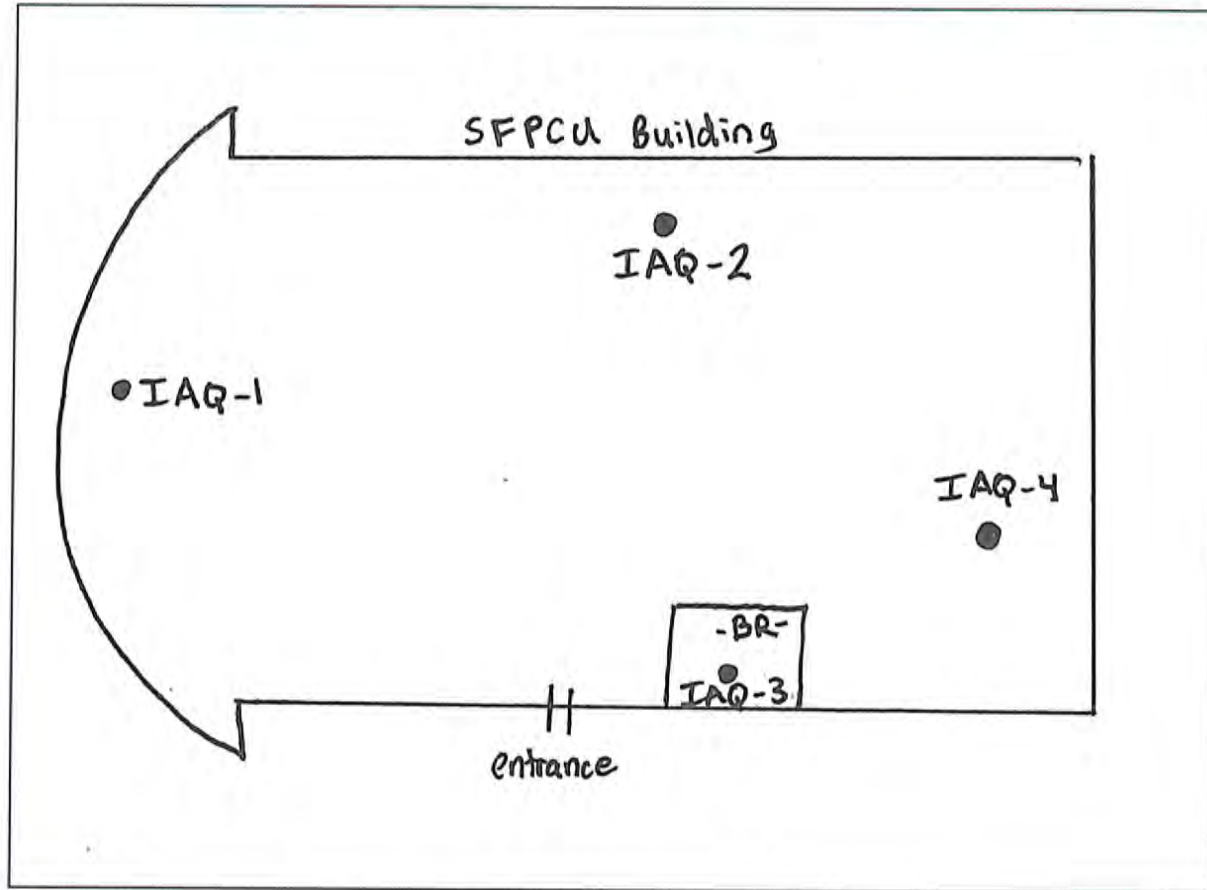
☐ Dirt Floor ☐ Sealed ☐ Wet Surfaces ☐ Sump Pump ☐ Concrete Cracks ☐ Floor Drains

Factors Influencing Indoor Air Quality

Is there an attached garage?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is there smoking in the building?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is there new carpet or furniture?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Have clothes or drapes been recently dry cleaned?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Has painting or staining been done with the last six months?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Has the building been recently remodeled?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Has the building ever had a fire?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Is there a hobby or craft area in the building?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Is gun cleaner stored in the building?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is there a fuel oil tank on the property?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is there a septic tank on the property?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Has the building been fumigated or sprayed for pests recently?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe: _____
Do any building occupants use solvents at work?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Describe: <u>cleaning solvents</u>

Sampling Locations

Draw the general floor plan of the building and denote locations of sample collection. Indicate locations of doors, windows, indoor air contaminant sources and field instrument readings.



Primary Type of Energy Used (Check appropriate boxes)

☐ Natural Gas ☐ Fuel Oil ☐ Propane ☒ Electricity ☐ Wood ☐ Kerosene

Meteorological Conditions

Describe the general weather conditions during the indoor air sampling event.

Sunny, $\approx 70^{\circ}\text{F}$

General Comments

Provide any other information that may be of importance in understanding the indoor air quality of this building.

INDOOR/AMBIENT AIR SAMPLING FIELD LOG

Project No: 19086.28 Project Name: IRVING AIR SAMPLING
Date: 8/19-20/19 Site Location: 2550 IRVING STREET, SF, CA
Sample ID No: IAQ-1 Canister Type: 6L SUMMA Serial No: 32747
Regulatory Agencies: _____ Contractor: ALLWEST
Indoor/Outdoor: INDOOR Building Name/Location: SFPCU - 2550 IRVING STREET, SF, CA
Initial Vacuum: -30 ("Hg) Final Vacuum: -3 ("Hg) Canister Volume: 6 (L)
Sampling Interval (hrs): 24 Flow Regulator: _____ (ml/min) Regulator Serial No: 4J17
Laboratory Name and Location: EUROFINS
Laboratory Analyses: PCE & BREAKDOWNS

SAMPLE COLLECTION

Start/Stop Time	Time Elapsed	Pressure	Remarks
0740		-30	start sample
0830		-3	stop sample

Remarks: _____

Sampler: SAM CALLOWAY

INDOOR/AMBIENT AIR SAMPLING FIELD LOG

Project No: 19086.28 Project Name: IRVING AIR SAMPLING
Date: 8/19-20/19 Site Location: 2550 IRVING STREET, SF, CA
Sample ID No: IAQ-2 Canister Type: 6L SUMMA Serial No: 15569
Regulatory Agencies: _____ Contractor: ALLWEST
Indoor/Outdoor: INDOOR Building Name/Location: SFPCU - 2550 IRVING STREET, SF, CA
Initial Vacuum: -30 ("Hg) Final Vacuum: -3 ("Hg) Canister Volume: 6 (L)
Sampling Interval (hrs): 24 Flow Regulator: _____ (ml/min) Regulator Serial No: 4J19
Laboratory Name and Location: EUROFINS
Laboratory Analyses: PCE & BREAKDOWNS

SAMPLE COLLECTION

Start/Stop Time	Time Elapsed	Pressure	Remarks
0745		-30	start sample
0835		-3	stop sample

Remarks: _____

Sampler: SAM CALLOWAY

INDOOR/AMBIENT AIR SAMPLING FIELD LOG

Project No: 19086.28 Project Name: IRVING AIR SAMPLING
Date: 8/19-20/19 Site Location: 2550 IRVING STREET, SF, CA
Sample ID No: IAQ-3 Canister Type: 6L SUMMA Serial No: 22075
Regulatory Agencies: _____ Contractor: ALLWEST
Indoor/Outdoor: INDOOR Building Name/Location: SFPCU - 2550 IRVING STREET, SF, CA
Initial Vacuum: -30 ("Hg) Final Vacuum: -4 ("Hg) Canister Volume: 6 (L)
Sampling Interval (hrs): 24 Flow Regulator: _____ (ml/min) Regulator Serial No: 4J2
Laboratory Name and Location: EUROFINS
Laboratory Analyses: PCE & BREAKDOWNS

SAMPLE COLLECTION

Start/Stop Time	Time Elapsed	Pressure	Remarks
0750		-30	Start sample
0840		-4	Stop sample

Remarks: Sample located in bathroom

Sampler: SAM CALLOWAY

INDOOR/AMBIENT AIR SAMPLING FIELD LOG

Project No: 19086.28 Project Name: IRVING AIR SAMPLING
Date: 8/19-20/19 Site Location: 2550 IRVING STREET, SF, CA
Sample ID No: IAQ-4 Canister Type: 6L SUMMA Serial No: 30572
Regulatory Agencies: _____ Contractor: ALLWEST
Indoor/Outdoor: INDOOR Building Name/Location: SFPCU - 2550 IRVING STREET, SF, CA
Initial Vacuum: -30 ("Hg) Final Vacuum: -8 ("Hg) Canister Volume: 6 (L)
Sampling Interval (hrs): 24 Flow Regulator: _____ (ml/min) Regulator Serial No: 4J4
Laboratory Name and Location: EUROFINS
Laboratory Analyses: PCE & BREAKDOWNS

SAMPLE COLLECTION

Start/Stop Time	Time Elapsed	Pressure	Remarks
0755		-30	Start Sample
0845		-8	Stop Sample

Remarks: _____

Sampler: SAM CALLOWAY

INDOOR/AMBIENT AIR SAMPLING FIELD LOG

Project No: 19086.28 Project Name: IRVING AIR SAMPLING
Date: 8/19-20/19 Site Location: 2550 IRVING STREET, SF, CA
Sample ID No: OQA-1 Canister Type: 6L SUMMA Serial No: 23160
Regulatory Agencies: _____ Contractor: ALLWEST
Indoor/Outdoor: OUTDOOR Building Name/Location: 2550 IRVING STREET, SF, CA
Initial Vacuum: -30 ("Hg) Final Vacuum: -4 ("Hg) Canister Volume: 6 (L)
Sampling Interval (hrs): 24 Flow Regulator: _____ (ml/min) Regulator Serial No: 4J27
Laboratory Name and Location: EUROFINS
Laboratory Analyses: PCE & BREAKDOWNS

SAMPLE COLLECTION

Start/Stop Time	Time Elapsed	Pressure	Remarks
0735		-30	Start Sample
0850		-4	Stop Sample

Remarks: _____

Sampler: SAM CALLOWAY

APPENDIX C

APPENDIX M - BUILDING SCREENING FORM

Occupant of Building SFPCUAddress 2550 Irving St, SF, CACity San FranciscoField Investigator Sam Calloway Date 8-16-19

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
	elevator room has tank	
	WD-40 (1) 8oz	
	Dust remover (1) 12oz	
	sanitizing spray (3) 16oz.	
	2 boxes urinal cakes	
	5 Soap bottles - 32 oz	
	2 hand sanitizer bottles - 2L	
	1 simple cleaner - 1g	
	1 Cascade Soap - 125 oz.	
	1 Mr. Clean - 1g	
	3 cans of Spray paint	
	8 29oz. paint/primer cans	
	4 1g paint cans	
	~20 fluorescent bulbs	
	1 can of acetone - 32oz.	

Comments: The list above was all in the janitors closet,
backside list is Breakroom

Breakroom

3 1g cascade soaps

1 12oz windex

2 42oz non-toxic cleaner

1 16oz rubbing alcohol

APPENDIX D



Sam Calloway
AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, California 94110
Tel: O: (415) 391-2510/C: (616) 485-1448
Email: sam@allwest1.com
RE: 2550 Irving St, SF, CA

Work Order No.: 1908170

Dear Sam Calloway:

Torrent Laboratory, Inc. received 5 sample(s) on August 22, 2019 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink that reads "Kathie Evans". The signature is written in a cursive, flowing style.

Kathie Evans
Project Manager

August 23, 2019

Date



Date: 8/23/2019

Client: AllWest Environmental, Inc.

Project: 2550 Irving St, SF, CA

Work Order: 1908170

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected:

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Note for method TO15SIM: Method Blank is only used for Instrument purpose. Canisters are self-certified, and the report for the individually tested canisters can be found on work order "1908171"



Sample Result Summary

Report prepared for: Sam Calloway
AllWest Environmental, Inc.

Date Received: 08/22/19

Date Reported: 08/23/19

OAQ-1

1908170-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
1,1-Dichloroethene	TO15SIM	1	0.00671	0.0199	0.0357
Trichloroethylene	TO15SIM	1	0.0112	0.0269	0.0483
Tetrachloroethylene	TO15SIM	1	0.0257	0.0678	0.305

IAQ-1

1908170-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
1,1-Dichloroethene	TO15SIM	1	0.00671	0.0199	1.70
Trichloroethylene	TO15SIM	1	0.0112	0.0269	0.0644
Tetrachloroethylene	TO15SIM	1	0.0257	0.0678	3.85

IAQ-2

1908170-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
1,1-Dichloroethene	TO15SIM	1	0.00671	0.0199	1.56
Trichloroethylene	TO15SIM	1	0.0112	0.0269	0.161
Tetrachloroethylene	TO15SIM	1	0.0257	0.0678	3.85

IAQ-3

1908170-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
1,1-Dichloroethene	TO15SIM	1	0.00671	0.0199	2.63
Trichloroethylene	TO15SIM	1	0.0112	0.0269	0.0859
Tetrachloroethylene	TO15SIM	1	0.0257	0.0678	2.67

IAQ-4

1908170-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
1,1-Dichloroethene	TO15SIM	1	0.00671	0.0199	1.41
Trichloroethylene	TO15SIM	1	0.0112	0.0269	0.0698
Tetrachloroethylene	TO15SIM	1	0.0257	0.0678	2.87



SAMPLE RESULTS

Report prepared for: Sam Calloway
AllWest Environmental, Inc.

Date/Time Received: 08/22/19, 12:00 pm
Date Reported: 08/23/19

Client Sample ID:	OAQ-1	Lab Sample ID:	1908170-001A
Project Name/Location:	2550 Irving St, SF, CA	Sample Matrix:	Ambient Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/20/19 / 8:50	Received PSI :	14.0
Canister/Tube ID:	23160	Corrected PSI :	
Collection Volume (L):			
SDG:			

Prep Method: TO-15SIM-P	Prep Batch Date/Time: 8/22/19 11:00:00AM
Prep Batch ID: 1116049	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Chloride	TO15SIM	1.00	0.00366	0.00768	ND	ND		08/22/19	15:34	BA	441881
1,1-Dichloroethene	TO15SIM	1.00	0.00671	0.0199	0.0357	0.01		08/22/19	15:34	BA	441881
trans-1,2-Dichloroethene	TO15SIM	1.00	0.00372	0.0198	ND	ND		08/22/19	15:34	BA	441881
cis-1,2-Dichloroethene	TO15SIM	1.00	0.00404	0.0198	ND	ND		08/22/19	15:34	BA	441881
Trichloroethylene	TO15SIM	1.00	0.0112	0.0269	0.0483	0.01		08/22/19	15:34	BA	441881
Tetrachloroethylene	TO15SIM	1.00	0.0257	0.0678	0.305	0.04		08/22/19	15:34	BA	441881



SAMPLE RESULTS

Report prepared for: Sam Calloway
AllWest Environmental, Inc.

Date/Time Received: 08/22/19, 12:00 pm
Date Reported: 08/23/19

Client Sample ID:	IAQ-1	Lab Sample ID:	1908170-002A
Project Name/Location:	2550 Irving St, SF, CA	Sample Matrix:	Ambient Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/20/19 / 8:30	Received PSI :	13.4
Canister/Tube ID:	32747	Corrected PSI :	
Collection Volume (L):			
SDG:			

Prep Method: TO-15SIM-P	Prep Batch Date/Time: 8/22/19 11:00:00AM
Prep Batch ID: 1116049	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Chloride	TO15SIM	1.00	0.00366	0.00768	ND	ND		08/22/19	16:10	BA	441881
1,1-Dichloroethene	TO15SIM	1.00	0.00671	0.0199	1.70	0.43		08/22/19	16:10	BA	441881
trans-1,2-Dichloroethene	TO15SIM	1.00	0.00372	0.0198	ND	ND		08/22/19	16:10	BA	441881
cis-1,2-Dichloroethene	TO15SIM	1.00	0.00404	0.0198	ND	ND		08/22/19	16:10	BA	441881
Trichloroethylene	TO15SIM	1.00	0.0112	0.0269	0.0644	0.01		08/22/19	16:10	BA	441881
Tetrachloroethylene	TO15SIM	1.00	0.0257	0.0678	3.85	0.57		08/22/19	16:10	BA	441881



SAMPLE RESULTS

Report prepared for: Sam Calloway
AllWest Environmental, Inc.

Date/Time Received: 08/22/19, 12:00 pm
Date Reported: 08/23/19

Client Sample ID:	IAQ-2	Lab Sample ID:	1908170-003A
Project Name/Location:	2550 Irving St, SF, CA	Sample Matrix:	Ambient Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/20/19 / 8:35	Received PSI :	14.2
Canister/Tube ID:	15569	Corrected PSI :	
Collection Volume (L):			
SDG:			

Prep Method: TO-15SIM-P	Prep Batch Date/Time: 8/22/19 11:00:00AM
Prep Batch ID: 1116049	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Chloride	TO15SIM	1.00	0.00366	0.00768	ND	ND		08/22/19	16:51	BA	441881
1,1-Dichloroethene	TO15SIM	1.00	0.00671	0.0199	1.56	0.39		08/22/19	16:51	BA	441881
trans-1,2-Dichloroethene	TO15SIM	1.00	0.00372	0.0198	ND	ND		08/22/19	16:51	BA	441881
cis-1,2-Dichloroethene	TO15SIM	1.00	0.00404	0.0198	ND	ND		08/22/19	16:51	BA	441881
Trichloroethylene	TO15SIM	1.00	0.0112	0.0269	0.161	0.03		08/22/19	16:51	BA	441881
Tetrachloroethylene	TO15SIM	1.00	0.0257	0.0678	3.85	0.57		08/22/19	16:51	BA	441881



SAMPLE RESULTS

Report prepared for: Sam Calloway
AllWest Environmental, Inc.

Date/Time Received: 08/22/19, 12:00 pm
Date Reported: 08/23/19

Client Sample ID:	IAQ-3	Lab Sample ID:	1908170-004A
Project Name/Location:	2550 Irving St, SF, CA	Sample Matrix:	Ambient Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/20/19 / 8:40	Received PSI :	13.2
Canister/Tube ID:	22075	Corrected PSI :	
Collection Volume (L):			
SDG:			

Prep Method: TO-15SIM-P	Prep Batch Date/Time: 8/22/19 11:00:00AM
Prep Batch ID: 1116049	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Chloride	TO15SIM	1.00	0.00366	0.00768	ND	ND		08/22/19	17:27	BA	441881
1,1-Dichloroethene	TO15SIM	1.00	0.00671	0.0199	2.63	0.66		08/22/19	17:27	BA	441881
trans-1,2-Dichloroethene	TO15SIM	1.00	0.00372	0.0198	ND	ND		08/22/19	17:27	BA	441881
cis-1,2-Dichloroethene	TO15SIM	1.00	0.00404	0.0198	ND	ND		08/22/19	17:27	BA	441881
Trichloroethylene	TO15SIM	1.00	0.0112	0.0269	0.0859	0.02		08/22/19	17:27	BA	441881
Tetrachloroethylene	TO15SIM	1.00	0.0257	0.0678	2.67	0.39		08/22/19	17:27	BA	441881



SAMPLE RESULTS

Report prepared for: Sam Calloway
AllWest Environmental, Inc.

Date/Time Received: 08/22/19, 12:00 pm
Date Reported: 08/23/19

Client Sample ID:	IAQ-4	Lab Sample ID:	1908170-005A
Project Name/Location:	2550 Irving St, SF, CA	Sample Matrix:	Ambient Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/20/19 / 8:45	Received PSI :	12.9
Canister/Tube ID:	30572	Corrected PSI :	
Collection Volume (L):			
SDG:			

Prep Method: TO-15SIM-P	Prep Batch Date/Time: 8/22/19 11:00:00AM
Prep Batch ID: 1116049	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Chloride	TO15SIM	1.00	0.00366	0.00768	ND	ND		08/22/19	18:06	BA	441881
1,1-Dichloroethene	TO15SIM	1.00	0.00671	0.0199	1.41	0.36		08/22/19	18:06	BA	441881
trans-1,2-Dichloroethene	TO15SIM	1.00	0.00372	0.0198	ND	ND		08/22/19	18:06	BA	441881
cis-1,2-Dichloroethene	TO15SIM	1.00	0.00404	0.0198	ND	ND		08/22/19	18:06	BA	441881
Trichloroethylene	TO15SIM	1.00	0.0112	0.0269	0.0698	0.01		08/22/19	18:06	BA	441881
Tetrachloroethylene	TO15SIM	1.00	0.0257	0.0678	2.87	0.42		08/22/19	18:06	BA	441881



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1908170	Prep Method:	TO-15SIM-P	Prep Date:	08/22/19	Prep Batch:	1116049
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	8/22/2019	Analytical Batch:	441881
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.011	0.0050		0.100	117	115	1.72	65 - 135	30	
Benzene	0.0021	0.020		0.100	96.0	96.0	0.000	65 - 135	30	
Trichloroethylene	0.0011	0.0050		0.100	92.0	94.0	2.15	65 - 135	30	
Toluene	0.00050	0.0050		0.100	69.0	71.0	2.86	65 - 135	30	
Chlorobenzene	0.0017	0.0050		0.100	92.0	92.0	0.000	65 - 135	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg/m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: AllWest Environmental, Inc.

Date and Time Received: 8/22/2019 12:00:00PM

Project Name: 2550 Irving St, SF, CA

Received By: Katherene Evans

Work Order No.: 1908170

Physically Logged By: Katherene Evans

Checklist Completed By: Katherene Evans

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	<u>Yes</u>
Chain of custody signed when relinquished and received?	<u>Yes</u>
Chain of custody agrees with sample labels?	<u>Yes</u>
Custody seals intact on sample bottles?	<u>Not Present</u>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	<u>Not Present</u>
Shipping Container/Cooler In Good Condition?	<u>Yes</u>
Samples in proper container/bottle?	<u>Yes</u>
Samples containers intact?	<u>Yes</u>
Sufficient sample volume for indicated test?	<u>Yes</u>

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	<u>Yes</u>	
Container/Temp Blank temperature in compliance?		Temperature: °C
Water-VOA vials have zero headspace?	<u>No VOA vials submitted</u>	
Water-pH acceptable upon receipt?	<u>N/A</u>	
pH Checked by: na	pH Adjusted by: na	

Comments:



Login Summary Report

Client ID: TL6708 AllWest Environmental, Inc.

Project Name: 2550 Irving St, SF, CA

Project # :

Report Due Date: 8/23/2019

QC Level: II

TAT Requested: 1 Day Rush:1

Date Received: 8/22/2019

Time Received: 12:00 pm

Comments:

Work Order # : 1908170

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1908170-001A	OAQ-1	08/20/19 8:50	Air				VOC_A_TO15SIM	
<u>Sample Note:</u> PCE & Breakdowns								
1908170-002A	IAQ-1	08/20/19 8:30	Air				VOC_A_TO15SIM	
1908170-003A	IAQ-2	08/20/19 8:35	Air				VOC_A_TO15SIM	
1908170-004A	IAQ-3	08/20/19 8:40	Air				VOC_A_TO15SIM	
1908170-005A	IAQ-4	08/20/19 8:45	Air				VOC_A_TO15SIM	



RESET

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

1908170

Company Name: ALLWEST ENVIRONMENTAL			Location of Sampling: 2550 IRVING ST, SF, CA	
Address: 2141 MISSION ST			Purpose: IAQ SAMPLING	
City: SAN FRANCISCO	State: CA	Zip Code: 94110	Special Instructions / Comments:	
Telephone: 415-391-2510		FAX:		
REPORT TO: SAM CALLOWAY		SAMPLER: SAM CALLOWAY	P.O. #: 19086.28	EMAIL: SAM/LEONARD@ALLWEST1.COM



SAMPLE TYPE:

REPORT FORMAT:

☐ Storm Water ☒ Air
☐ Waste Water ☐ Other
☐ Ground Water
☐ Soil

☒ QC Level IV
☐ EDF
☐ Excel / EDD

ANALYSIS
REQUESTED[illegible]

1	Relinquished By: 	Print: Sam Calloway	Date: 8/22/19	Time: 1200	Received By: 	Print: Latane	Date: 8-22-19	Time: 1200
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☐ Yes ☒ NO Method of Shipment D/O Eff Sample seals intact? ☐ Yes ☐ NO ☒ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrange

Log In By: _____ Date: _____ Log In Reviewed By: _____

Method of Shipment D/O FF Sample seals intact? ☐ Yes ☐ NO ☒ N/A

[illegible]

Summarized
Date: _____ Page: _____ of: _____

D/O ff

Sample Goals Indict: ☐ YES ☐ NO ☒ N/A

Summary record (a) Page 1 of 1

Sample seals intact? ☐ Yes ☐ NO ☒ N/A

Sample seals intact: ☐ YES ☒ NO ☐ N/A

Page 1 of 1

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APPENDIX E



APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE: **INDOOR AIR QUALITY MONITORING REPORT**

2550 Irving Street
San Francisco, CA 94122

PROJECT NUMBER: 19086.28

To: AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110

From (Applicant): _____

(Please clearly identify name and address of person/entity applying for permission to use or copy this document)

Ladies and Gentlemen:

Applicant states they have thoroughly reviewed the report and had the opportunity to discuss with AllWest the report's methodology, findings and conclusion(s).

Applicant hereby applies for permission to rely upon AllWest's work product, as described above, for the purpose of (state here the purpose for which you wish to rely upon the work product):

Applicant only can accept and rely upon AllWest work product under the strict understanding that Applicant is bound by all provisions in the General Conditions to the Work Authorization Agreement provided below. Every report, recommendation, finding, or conclusion issued by AllWest shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. AllWest may withhold permission at its sole discretion or require additional re-use fees or terms.

FEES: A \$1,650 coordination and reliance fee, payable in advance, will apply. If desired, for an additional \$150 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

REQUESTED BY

APPROVED BY

Applicant Company

AllWest Environmental, Inc.

Print Name and Title

Print Name and Title

Signature and Date

Signature and Date

GENERAL CONDITIONS TO THE WORK AUTHORIZATION AGREEMENT

It is hereby agreed that the Client retains AllWest to provide services as set forth in the Work Authorization attached hereto (the "Work"). This contract shall be controlled by the following terms and conditions, and these terms and conditions shall also control any further assignments performed pursuant to this Work Authorization. Client's signature on this Work Authorization constitutes Client's agreement to the all terms to this contract, including these General Conditions.

FEES AND COSTS

1. AllWest shall charge for work performed by its personnel at the rates identified in the Work Authorization. These rates are subject to reasonable increases by AllWest upon giving Client 30 days advance notice. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services (defined below) under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of fifty- eight cents (\$0.58) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Reimbursable costs will be charged to the client only as outlined in the Work Authorization if the scope of work is for Phase I Environmental Site Assessment, Property Condition Assessment, Seismic Assessment or ALTA survey. Invoices for work performed shall be submitted monthly. Payment will be due upon receipt of invoice. Client shall pay interest on the balance of unpaid invoices which are overdue by more than 30 days, at a rate of 18% per annum as well as all attorney fees and costs incurred by AllWest to secure payment of unpaid invoices. AllWest may waive such fees at its sole discretion.

STANDARD OF CARE

2. AllWest will perform its work in accordance with the standard of care of its industry, as it is at the time of the work being performed, and applicable in the locale of the work being performed. AllWest makes no other warranties, express or implied regarding its work.

LIMITATION OF REMEDIES

3. Client expressly agrees that to the fullest extent permitted by law, Client's remedies for any liability incurred by AllWest, and/or its employees or agents, for any and all claims arising from AllWest's services, shall be \$50,000 or its fees, whichever is greater.

Client may request a higher limitation of remedies, but must do so in writing. Upon such written request, AllWest may agree to increase this limit in exchange for a mutually negotiated higher fee commensurate with the increased risk to AllWest. Any such agreed increase in fee and limitation of remedies amount must be memorialized by written agreement which expressly amends the terms of this clause.

As used in this section, the term "limitation of remedies" shall apply to claims of any kind, including, but not limited to, claims brought in contract, tort, strict liability, or otherwise, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to AllWest's services or the services of AllWest's subcontractors, consultants, agents, officers, directors, and employees from any cause(s). AllWest shall not be liable for any claims of loss of profits or any other indirect, incidental, or consequential damages of any nature whatsoever. Client & AllWest have specifically negotiated this limitation.

INDEMNIFICATION

4. Notwithstanding any other provision of this Agreement, Client agrees, to the fullest extent permitted by law, to waive any claim against, release from any liability or responsibility for, and , indemnify and hold harmless AllWest, its employees, agents and sub-consultants (collectively, Consultant) from and against any and all damages, liabilities, claims, actions or costs of any kind, including reasonable attorney's fees and defense costs, arising or alleged to arise out of or to be in any way connected with the Project or the performance or non-performance of Consultant of any services under this Agreement, excepting only any such liabilities determined by a court or other forum of competent jurisdiction to have been caused by the negligence or willful misconduct of Consultant. This provision shall be in addition to any rights of indemnity that Consultant may have under the law and shall survive and remain in effect following the termination of this Agreement for any reason. Should any part of this provision be determined to be unenforceable, AllWest and Client agree that the rest of the provision shall apply to the maximum extent permitted by law. The Client's duty to defend AllWest shall arise immediately upon tender of any matter potentially covered by the above obligations to indemnify and hold harmless.

MEDIATION & JUDICIAL REFERENCE

5. In an effort to resolve any conflicts or disputes that arise regarding the performance of this agreement, the Client & AllWest agree that all such disputes shall be submitted to non-binding mediation, using a mutually agreed upon mediation service experienced in the resolution of construction disputes. Unless the parties mutually agree otherwise, such mediation shall be a condition precedent to the initiation of any other adjudicative proceedings. It is further agreed that any dispute that is not settled pursuant to such mediation shall be adjudicated by a court appointed referee in accordance with the Judicial Reference procedures as set forth in California Code of Civil Procedure Section 638 et seq. The parties hereby mutually agree to waive any right to a trial by jury regarding any dispute arising out of this agreement.

The parties further agree to include a similar mediation, Judicial Reference & waiver of jury trial provision in their agreements with other independent contractors & consultants retained for the project and require them to similarly agree to these dispute resolution procedures. The cost of said Mediation shall be split equally between the parties. This agreement to mediate shall be specifically enforceable under the prevailing law of the jurisdiction in which this agreement was signed.

HAZARDOUS WASTE

6. Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of performing the services set out in the scope of work within this Agreement, which may include, but is not necessarily limited to such services as assisting the Client in assessing any problem which may exist and in assisting the

Client in formulating a remedial program. Client acknowledges that while necessary for investigations, commonly used exploration methods employed by AllWest may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout or other means, according to a state of practice design is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest will not sign or execute hazardous waste manifests or other waste tracking documents on behalf of Client unless Client specifically establishes AllWest as an express agent of Client under a written agency agreement approved by AllWest. In addition, Client agrees that AllWest shall not be required to sign any documents, no matter requested by whom, that would have the effect of AllWest providing any form of certification, guarantee, or warranty as to any matter or to opine on conditions for which the existence AllWest cannot ascertain. Client also agrees that it shall never seek or otherwise attempt to have AllWest provide any form of such certification, guarantee or warranty in exchange for resolution of any disputes between Client and AllWest, or as a condition precedent to making payment to AllWest for fees and costs owing under this Agreement.

Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter, arranger or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake and arrange for the removal, treatment, storage, disposal and/or treatment of hazardous material and investigation derived waste (such as drill cuttings) and further, assumes full responsibility for such wastes to the complete exclusion of any responsibility, duty or obligation upon AllWest. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

FORCE MAJUERE

7. Neither party shall be responsible for damages or delays in performance under this Agreement caused by acts of God, strikes, lockouts, accidents or other events or condition (other than financial inability) beyond the other Party's reasonable control.

TERMINATION

8. This Agreement may be terminated by either party upon ten (10) days' written notice should the other party substantially fail to perform in accordance with its duties and responsibilities as set forth in this Agreement and such failure to perform is through no fault of the party initiating the termination. Client agrees that if it chooses to terminate AllWest for convenience, and AllWest has otherwise satisfactorily performed its obligations under this Agreement to that point, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client, and Client agrees to pay AllWest's reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

Upon notice of termination by Client to AllWest, AllWest may issue notice of such termination to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project, and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

DOCUMENTS

9. Any documents prepared by AllWest, including, but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are instruments of service and shall remain the property of AllWest and AllWest retains copyrights to these instruments of service. AllWest grants to Client a non-exclusive license to use these instruments of service for the purpose of completing and maintaining the Project. The Client shall be permitted to retain a copy of any instruments of service, but Client expressly agrees and acknowledges that the instruments of service may not be used by the Client on other projects, or for any other purpose, except the project for which they were prepared, unless Client first obtains a written agreement expanding the license to such use from AllWest, and with appropriate compensation to AllWest. Client further agrees that such instruments of service shall not be provided to any third parties without the express written permission of AllWest.

Client shall furnish, or cause to be furnished to AllWest all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. If Client fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in its possession during the period that AllWest is actively providing its services (including up to 30 days after its final invoice), Client shall release AllWest from any and all liability for risks and damages the Client incurs resulting from its reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for the accuracy or completeness of Client-provided documents. Client-provided documents will remain the property of the Client.

ACCESS TO PROJECT

10. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest. Client's failure to provide such timely access and permission shall constitute a material breach of this Agreement excusing AllWest from performance of its duties under this Agreement.

CONFIDENTIAL INFORMATION

11. Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the

research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

INDEPENDENT CONTRACTOR

12. Both Client and AllWest agree that AllWest is an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

ENTIRE AGREEMENT

13. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes and replaces in its entirety all prior and contemporaneous proposals, agreements, representations and understandings of the Parties. The Parties have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act.

INTEGRATION

14. This is a fully integrated Agreement. The terms of this Agreement may be modified only by a writing signed by both Parties. The terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language in an effort to reach the intended result.

MODIFICATION / WAIVER / PARTIAL INVALIDITY

15. Failure on the part of either party to complain of any act or omission of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or its application be unenforceable to any extent, the Parties agree that the remainder of this Agreement shall not be affected and shall be enforced to the greatest extent permitted by law.

INUREMENT / TITLES

16. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. , et al., incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled.

AUTHORITY

17. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture, limited liability company or a partnership, the signatories below warrant that said entity is properly and duly organized and existing under the laws of the state of its formation and pursuant to the organizational and operating document of the entity, and the laws of the state of its formation, said signatory has authority act on behalf of and commit the entity to this Agreement.

COUNTERPARTS

18. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document.

THIRD PARTY BENEFICIARIES / CONTROLLING LAW

19. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.

TIME BAR TO LEGAL ACTION

20. Any legal actions by either party against the other related to this Agreement, shall be barred after one year has passed from the time the claimant knew or should have known of its claim, and under no circumstances shall be initiated after two years have passed from the date by which AllWest completes its services.