EAST BAY ASIAN LOCAL
DEVELOPMENT CORPORATION

BUILDING HEALTHY, VIBRANT AND SAFE NEIGHBORHOODS

NeighborWorks
CHARTERED MEMBER

September 13, 2017

Ms. Karel Detterman, P.G.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502
karel.detterman@acgov.org

RE: Addendum Report, Ground Water and Soil Vapor Investigation, Properties at 760 22nd Street and 2201 Brush Street, Oakland, California 94612

Dear Ms. Detterman:

Please find attached for your review the following document:

Preliminary Report, Properties at 760 22nd Street and 2201 Brush Street, Oakland, California 94612 (ACEH Document No. **RO3153_SWI_SCM_R_2017-09-05**

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please call me at (510) 287-5353 ext. 339 if you have any questions.

Sincerely;

Everett Cleveland Jr.
Senior Project Manager
East Bay Asian Local Development Corporation
1825 San Pablo Avenue, Suite 200
Oakland, CA 94612

Attachment

Essel Environmental Consulting
351 California Street, Suite 615
San Francisco, CA 94104
1-800-595-7616 Phone
510-380-6610 Fax

September 5, 2017

Mr. Everett Cleveland
Senior Project Manager
East Bay Asian Local Development Corporation
1825 San Pablo Avenue, Suite 200
Oakland, California 94612

RE: Addendum Report, Ground Water and Soil-Vapor Investigation, Properties at 760 22nd Street and 2201 Brush Street, Oakland, California 94612.
Fuel Leak Case No. RO0003153
GeoTracker Global ID T10000006348

Mr. Cleveland:

Essel Environmental Consulting (Essel) performed additional soil-vapor sampling at the properties located at 760 22nd Street and 2201 Brush Street in Oakland, California to supplement data presented in Essel's report of ground water and soil-vapor investigation, dated August 22, 2017. The soil-vapor investigation was performed at the west-central edge of the property at and near a location referred to as the geophysical anomaly. Soil-vapor probes SV-8 through SV-11 were installed on July 28, 2017 and sampled on August 2 and 15, 2017. Laboratory analytical results for soil-vapor samples collected from vapor probes SV-10 and SV-11 showed uniform concentrations of oxygen (20 percent) and nitrogen (80 percent) and relatively high concentrations (33,000 and 50,000 micrograms per cubic meter) of the leak check tracer gas isopropyl alcohol (2-propanol). The results indicated the sampling systems were not sufficiently airtight at these two vapor probes.

On August 25, 2017, Essel purged and re-collected samples from soil-vapor probes SV-10 and SV-11 in 1-liter Summa canisters using procedures described in the August 22, 2017 ground water and soil-vapor investigation report. Plate 1 shows the locations of SV-10 and SV-11. Soil-vapor samples SV-10 and SV-11 were submitted to Eurofins Air Toxics, Inc. laboratory in Folsom, California (Certificate No. CA 300005) under chain-of-custody and were analyzed for methane, oxygen, nitrogen, and carbon dioxide using American Society for Testing & Materials Method D-1946 and for 2-propanol using United States Environmental Protection Agency Method TO-15.

Laboratory analytical results show methane was detected at concentrations of 150 and 56 parts per million vapor (ppmv) in vapor probes SV-10 and SV-11, respectively. These concentrations are well below the action level (explosive hazard) for methane of 5,000 ppmv. Oxygen was detected at concentrations of 2.7 and 4.8 percent, nitrogen was detected at 93 and 91 percent, and carbon dioxide was detected at 4.6 and 4.1 percent in samples from the two respective vapor probes. These results are consistent with results obtained in samples from vapor probes SV-8 and SV-9 and are considered more representative of subsurface conditions in the geophysical anomaly area. The tracer 2-propanol was not detected in the vapor sample from SV-10 and was detected at a moderate concentration of 6,000 micrograms per cubic meter in the vapor sample from SV-11. Table 1 presents the cumulative laboratory analytical results for naphthalene; methane, oxygen, nitrogen, and carbon dioxide; and 2-propanol in the soil-vapor samples collected from vapor probes SV-8 through SV-11. Copies of the Chain-of-Custody forms and laboratory analytical reports for the soil-vapor samples collected from SV-10 and SV-11 on August 25, 2017 are included in Appendix A.

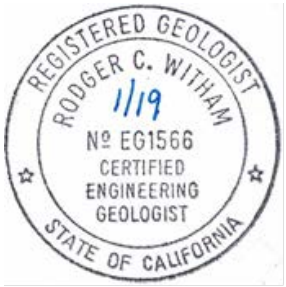
Essel Environmental Consulting
351 California Street, Suite 615
San Francisco, CA 94104
1-800-595-7616 Phone
510-380-6610 Fax

The results of sampling and analysis of soil-vapor probes SV-8 through SV-11 in August 2017 show that methane is not present in the geophysical anomaly area or at the western edge of the site at concentrations that present a potential explosive hazard at the site or at the west-adjacent residential property.

Limitations to this investigation are included in Appendix B.

ESSEL ENVIRONMENTAL CONSULTING

Rodger C. Witham, P.G., C.E.G.
Senior Geologist



Nik Lahiri
Principal

Table 1 - Methane, Fixed Gases, and Naphthalene Concentrations in Soil-Vapor Samples, Geophysical Anomaly Area

Plate 1 – Soil Vapor Probe Locations, Geophysical Anomaly Area

Appendix A – Chain-of-Custody Forms and Laboratory Analytical Reports for Soil Vapor Samples Collected August 25, 2017
Appendix B – Limitations

TABLE 1
Methane, Fixed Gases, and Naphthalene Concentrations in Soil-Vapor Samples
Geophysical Anomaly Area
Properties at 760 22nd Street and 2201 Brush Street, Oakland, California

Soil Probe	SV-8	SV-9		SV-10			SV-11			SFBRWQCB Screening Level	DTSC Action Le
Date	08/02/17	08/02/17	08/15/17	08/02/17	08/15/17	08/25/17	08/02/17	08/15/17	08/25/17		
Sample Number	SV-8	SV-9	SV-9	SV-10	SV-10	SV-10	SV-11	SV-11	SV-11		
Depth of Sample (feet)	7.50	7.50		7.50			9.50			Residential	Residenti
Analyte											
Naphthalene	<17	<17	--	<17	--	--	<17	--	--	41	
Methane (percent)	**0.16**	**0.00022**	<0.00021	**0.00090**	**0.0099**	**0.015**	**0.010**	**0.0092**	**0.0056**	--	--
Methane (ppmv)	**1,600**	**2.2**	<2.1	**9.0**	**99**	**150**	**100**	**92**	**56**	--	5,000
Oxygen (percent)	**11**	**20**	**6.8**	**20**	**20**	**2.7**	**20**	**20**	**4.8**	--	--
Nitrogen (percent)	**88**	**80**	**89**	**80**	**80**	**93**	**80**	**80**	**91**	--	--
Carbon Dioxide (percent)	**0.77**	**0.049**	**4.4**	**0.050**	**0.15**	**4.6**	**0.13**	**0.22**	**4.1**	--	--
2-propanol (isopropyl alcohol)	**710**	--	**26**	--	**33,000**	<40	--	**50,000**	**6,000**	--	--

Results for volatile organic compounds and screening levels are in micrograms per cubic meter.

Action level for methane is in parts per million vapor (ppmv).

Detectable concentrations are in boldface type.

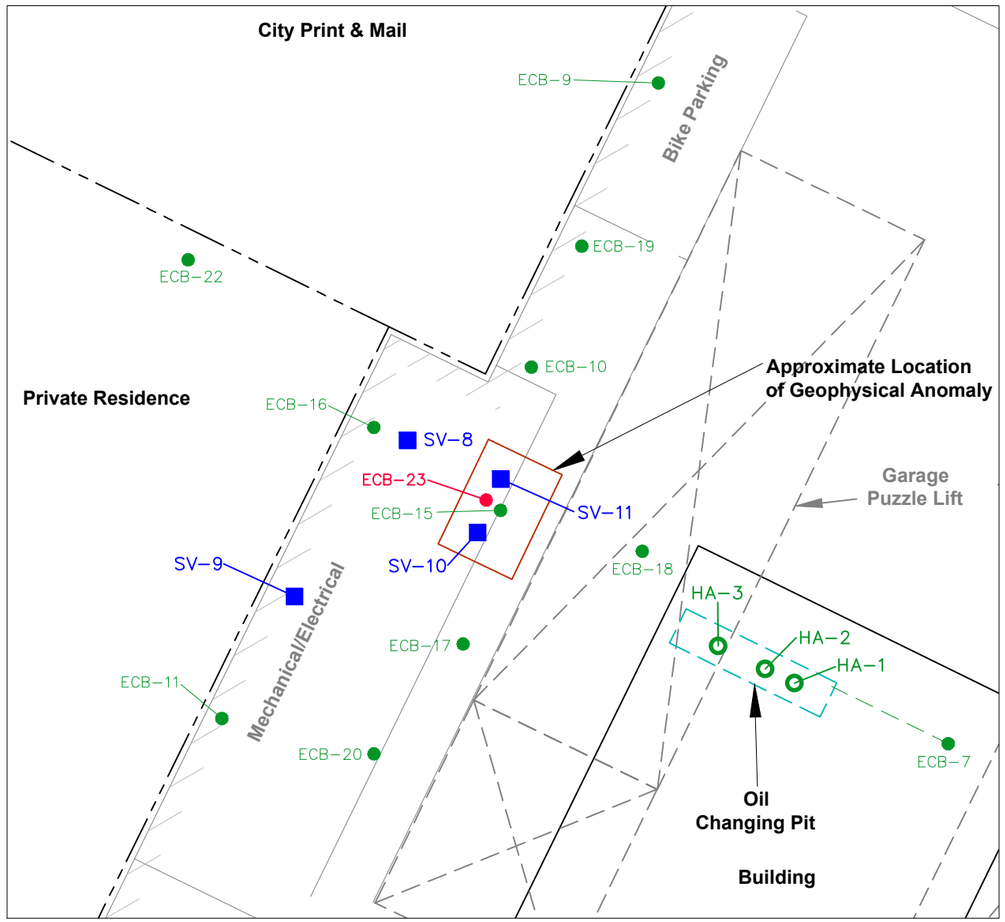
Representative analytical results are shaded light green.

< = less than the laboratory reporting limit shown.

-- = not analyzed.

SFBRWQCB = San Francisco Bay Regional Water Quality Control Board

DTSC = California Department of Toxic Substances Control



EXPLANATION

- APPROXIMATE PROPERTY BOUNDARY
- SOIL BORING LOCATION (ESSEL 2015, 2016)
- SOIL BORING LOCATION (ESSEL 2017)
- SOIL VAPOR PROBE LOCATION (ESSEL, 2017)
- HAND AUGER LOCATION (ESSEL, 2016)

NOTE: FUTURE BUILDING FEATURES ARE IN HALF TONE

N

Approximate Scale
0 14 28
feet

PROJECT NO.	DRAWN BY	REPORT DATE
15166	EC	September 2017

Essel Environmental Consulting
351 California Street, Suite 615
San Francisco, California 94104
1–800–595–7616

Soil Vapor Probe Locations
Geophysical Anomaly Area

760 22nd Street and
2201 Brush Street
Oakland, California

PLATE 1

APPENDIX A

CHAIN-OF-CUSTODY FORMS
AND
LABORATORY ANALYTICAL REPORTS
FOR SOIL-VAPOR SAMPLES
COLLECTED AUGUST 25, 2017

eurofins | Air Toxics

8/29/2017

Mr. Rodger Witham
Essel Environmental Consultants
44448 Martingale Ct.

Fremont CA 94539

Project Name: West Grand & Brush
Project #: 15166
Workorder #: 1708481B

Dear Mr. Rodger Witham

The following report includes the data for the above referenced project for sample(s) received on 8/25/2017 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Rachel Selenis

Project Manager

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WORK ORDER #: 1708481B

Work Order Summary

CLIENT:	Mr. Rodger Witham Essel Environmental Consultants 44448 Martingale Ct. Fremont, CA 94539	**BILL TO:**	Mr. Rodger Witham Essel Environmental Consultants 44448 Martingale Ct. Fremont, CA 94539
PHONE:	415-767-6375	**P.O. #**	15166
FAX:		**PROJECT #**	15166 West Grand & Brush
DATE RECEIVED:	08/25/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	08/29/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-10	Modified ASTM D-1946	22.5 "Hg	15 psi
02A	SV-11	Modified ASTM D-1946	24.0 "Hg	15 psi
03A	Lab Blank	Modified ASTM D-1946	NA	NA
04A	LCS	Modified ASTM D-1946	NA	NA
04AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 08/29/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified ASTM D-1946
Essel Environmental Consultants
Workorder# 1708481B

Two Client Canister samples were received on August 25, 2017. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

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

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

Samples SV-10 and SV-11 were received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SV-10

Lab ID#: 1708481B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.81	2.7
Nitrogen	0.81	93
Methane	0.00081	0.015
Carbon Dioxide	0.081	4.6

Client Sample ID: SV-11

Lab ID#: 1708481B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	1.0	4.8
Nitrogen	1.0	91
Methane	0.0010	0.0056
Carbon Dioxide	0.10	4.1

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Client Sample ID: SV-10

Lab ID#: 1708481B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10082706**	**Date of Collection: 8/25/17 9:30:00 AM**	
Dil. Factor:	**8.08**	**Date of Analysis: 8/27/17 07:47 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.81	2.7
Nitrogen	0.81	93
Methane	0.00081	0.015
Carbon Dioxide	0.081	4.6

Container Type: Client Canister

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Client Sample ID: SV-11

Lab ID#: 1708481B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10082707**	**Date of Collection: 8/25/17 10:39:00 AM**	
Dil. Factor:	**10.1**	**Date of Analysis: 8/27/17 08:24 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	1.0	4.8
Nitrogen	1.0	91
Methane	0.0010	0.0056
Carbon Dioxide	0.10	4.1

Container Type: Client Canister

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Client Sample ID: Lab Blank

Lab ID#: 1708481B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10082704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/17 06:45 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: LCS

Lab ID#: 1708481B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10082702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/17 05:21 PM**	

Compound	%Recovery	Method Limits
Oxygen	102	85-115
Nitrogen	88	85-115
Methane	100	85-115
Carbon Dioxide	99	85-115

Container Type: NA - Not Applicable

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Client Sample ID: LCSD

Lab ID#: 1708481B-04AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10082720**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/17 02:11 PM**	

Compound	%Recovery	Method Limits
Oxygen	98	85-115
Nitrogen	88	85-115
Methane	99	85-115
Carbon Dioxide	99	85-115

Container Type: NA - Not Applicable

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Rodger Witham

Collected by: (Print and Sign) Rodger Witham Rodger C. Witham

Company Essel Environmental Email

Address 351 California St. City San Francisco State CA Zip 94104

Phone Fax

Project Info:
P.O. # 15166
Project # 15166
Project Name West Ground & Brush

Turn Around Time:
☐ Normal
☒ Rush 2-day
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SV-10	SSAT-0412	8/25/17	9:30	Methane, O_2, N_2, CO_2 ASTM D-1946				
					2-propanol EPA TO-15				
02A	SV-11	SSAT-0435	8/25/17	10:39 a.m.	Methane, O_2, N_2, CO_2 ASTM D-1946				
					2-propanol EPA TO-15				

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Rodger C. Witham 8/25/17 1:20 p.m.	Kelly Buchta EATL 8/25/17 1320
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	HD		NA	Good	Yes No (None)	1708481

Form 1293 rev.11

eurofins | Air Toxics

8/29/2017

Mr. Rodger Witham
Essel Environmental Consultants
44448 Martingale Ct.

Fremont CA 94539

Project Name: West Grand & Brush
Project #: 15166
Workorder #: 1708481A

Dear Mr. Rodger Witham

The following report includes the data for the above referenced project for sample(s) received on 8/25/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Rachel Selenis

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1708481A

Work Order Summary

CLIENT:	Mr. Rodger Witham Essel Environmental Consultants 44448 Martingale Ct. Fremont, CA 94539	**BILL TO:**	Mr. Rodger Witham Essel Environmental Consultants 44448 Martingale Ct. Fremont, CA 94539
PHONE:	415-767-6375	**P.O. #**	15166
FAX:		**PROJECT #**	15166 West Grand & Brush
DATE RECEIVED:	08/25/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	08/29/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-10	TO-15	22.5 "Hg	15 psi
02A	SV-11	TO-15	24.0 "Hg	15 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 08/29/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
EPA Method TO-15
Essel Environmental Consultants
Workorder# 1708481A

Two Client Canister samples were received on August 25, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Samples SV-10 and SV-11 were received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

Dilution was performed on sample SV-11 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

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

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SV-10

Lab ID#: 1708481A-01A

No Detections Were Found.

Client Sample ID: SV-11

Lab ID#: 1708481A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	40	2500	99	6000

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Client Sample ID: SV-10

Lab ID#: 1708481A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082607**	**Date of Collection:**	**8/25/17 9:30:00 AM**
Dil. Factor:	**8.08**	**Date of Analysis:**	**8/26/17 03:05 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	16	Not Detected	40	Not Detected

Container Type: Client Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: SV-11

Lab ID#: 1708481A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082608**	**Date of Collection: 8/25/17 10:39:00 AM**	
Dil. Factor:	**20.2**	**Date of Analysis: 8/26/17 03:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	40	2500	99	6000

Container Type: Client Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1708481A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082606**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/17 01:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1708481A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/17 10:15 AM**	

Compound	%Recovery
2-Propanol	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1708481A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/17 10:41 AM**	

Compound	%Recovery	Method Limits
2-Propanol	89	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1708481A-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/17 11:07 AM**	

Compound	%Recovery	Method Limits
2-Propanol	90	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Rodger Witham

Collected by: (Print and Sign) Rodger Witham Rodger C. Witham

Company Essel Environmental Email

Address 351 California St. City San Francisco State CA Zip 94104

Phone Fax

Project Info:
P.O. # 15166
Project # 15166
Project Name West Ground & Brush

Turn Around Time:
☐ Normal
☒ Rush 2-day
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SV-10	SSAT-0412	8/25/17	9:30	Methane, O_2, N_2, CO_2 ASTM D-1946				
					2-propanol EPA TO-15				
02A	SV-11	SSAT-0435	8/25/17	10:39 a.m.	Methane, O_2, N_2, CO_2 ASTM D-1946				
					2-propanol EPA TO-15				

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Rodger C. Witham 8/25/17 1:20 p.m.	Kelly Buchta EATL 8/25/17 1320
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	HD		NA	Good	Yes No (None)	1708481

Form 1293 rev.11

APPENDIX B

LIMITATIONS

LIMITATIONS

The environmental investigation described in this report has been conducted in accordance with current regulatory guidance and the standards of environmental and geological practice performed in the general project area. No warranty, expressed or implied, is made regarding the professional opinions presented in the report.

Essel Environmental Consulting's descriptions, conclusions, and recommendations in the report, with respect to environmental conditions, are based on a limited number of sampling points and chemical analyses. Field observations made during the investigation and the samples collected and submitted for testing are considered to be representative of the area evaluated. Subsurface soil and ground-water conditions; however, may vary between and beyond sampling or observation points. Additional work, including further subsurface investigation, can reduce the inherent uncertainties associated with this type of investigation.

The 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 subject site. Chemical testing was conducted by an analytical laboratory that is certified by the state of California to perform the analyses requested for this investigation. Essel Environmental Consulting is not associated with the laboratory that performed the analyses and claims no responsibility for any inaccuracy in laboratory results.

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

This report; furthermore, is intended for the exclusive use by the client. Any use of the contents of this report by parties other than the client is undertaken at those parties' sole risk.