WATERSTONE ENVIRONMENTAL, INC.

2936 E. CORONADO STREET * ANAHEIM * CA 92806
714-414-1122 * FAX: 714-414-1166

January 25, 2016

Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Street, 21st Floor
Los Angeles, California 90017-5156

Re: Air Testing Results for Beckford Avenue Elementary School in Porter Ranch, California

Waterstone Environmental, Inc. (Waterstone) is pleased to submit this letter report detailing the results of recent air testing and sample collection at the Beckford Avenue Elementary School located at 19130 Tulsa Street, Porter Ranch, California.

Waterstone has collected air samples and conducted real time air monitoring using various handheld monitors. This report summarizes the results of air sample analysis for samples collected on January 19, 2015.

Sample Collection and Analysis

Sample collection consisted of both grab samples (approximately 2 minute sample filling period) in tedlar bags as well as 8-hour samples collected in summa canisters in the indoor health office. The summa canisters were placed in the breathing zone and allowed to sit undisturbed for a period of 8 hours.

One tedlar bag sample and one summa canister sample were delivered to Quantum Analytical Services Inc., a laboratory certified by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). Both samples were submitted for analysis of sulfur compounds by SCAQMD Method 307-91, and hydrocarbon speciation by modified EPA 18. The complete laboratory report with analysis results is attached.

One tedlar bag sample and one summa canister sample were delivered to Air Technology Laboratories, Inc., a laboratory accredited by the National Environmental Laboratory Accreditation Program (NELAP). Samples were submitted for analysis of BTEX by EPA Method TO-15. The complete laboratory report with analysis results is attached.

Real time air monitoring was conducted in indoor and outdoor spaces using a Jerome J631X for hydrogen sulfide detection; dräger tubes for benzene, toluene, ethylbenzene, and xylenes; a multi RAE monitor to measure percent lower explosive limit (%LEL) as an indicator of the potential presence of methane; and an ultra RAE monitor used to measure volatile organic compounds (VOCs) as an indicator of the potential presence of benzene as well as for taking benzene specific reading using a benzene sensor tube.

Analytical Results

The sample IDs created to refer to Beckford Avenue Elementary School are designated with a "BF" in the sample ID. The analytical results for Beckford Avenue Elementary School presented in the attached laboratory reports are summarized as follows:

- No sulfur compounds were detected at concentrations above laboratory detection limits.
- Methane was detected at a maximum concentration of 5,050 parts per billion by volume (ppbv) and below the environmental screening limits for methane of 500,000 ppbv used by the Department of Toxic Substances Control (DTSC) and 1,000,000 ppbv used by the National Institute for Occupational Safety (NIOSH). Additionally, methane was not detected at a concentration that requires a fire contingency plan (8,800,000 ppbv) as required by the Los Angeles County Building Code.
- The maximum concentration of benzene detected was 0.49 ppbv and below the environmental screening limits for benzene of 8 ppbv used by OEHHA for a 1-hour acute exposure.
- The maximum concentration of toluene detected was 1.8 ppbv and below the environmental screening limits for toluene of 9,640 ppbv used by OEHHA for a 1-hour acute exposure.
- The maximum concentration of ethylbenzene detected was 0.55 ppbv and below the environmental screening limits for ethylbenzene of 450 ppbv used by OEHHA for a chronic (lifetime) exposure.
- The maximum concentration of xylene (sum of p-xylene, m-xylene and o-xylene) detected was 3.7 ppbv and below the environmental screening limits for xylene of 4,970 ppbv used by OEHHA for a 1-hour acute exposure.

Analyte	**Maximum On-site Detection (ppbv)**	**Environmental Regulatory Limit (ppbv)**	**Environmental Regulatory Limit Description**
Sulfide Compounds	None	30 (Hydrogen Sulfide) 7 (Hydrogen Sulfide)	California Ambient Air – 1 hour and OEHHA Acute REL (42 ug/m^3)* OEHHA Chronic REL (10 ug/m^3)*
Methane	5,050	500,000 1,000,000	DTSC Site-Specific Screening Level (for ambient indoor and outdoor air). http://www.hawaiidoh.org/references/CalEPA%202005b.pdf NIOSH maximum recommended safe methane concentration for workers during an 8-hour period. http://www.cdc.gov/niosh/ipcsneng/neng0291.html

Analyte	Maximum On-site Detection (ppbv)	Environmental Regulatory Limit (ppbv)	Environmental Regulatory Limit Description
Ethane, Ethylene	None	1,000,000 2,000,000	NIOSH maximum recommended safe ethane concentration for workers during an 8-hour period. http://www.cdc.gov/niosh/ipcsneng/neng0266.html NIOSH maximum recommended safe ethylene concentration for workers during an 8-hour period. http://www.cdc.gov/niosh/ipcsneng/neng0475.html
Other Hydrocarbon Speciations by EPA 18	None	1,950 (Hexane)	OEHHA Chronic REL (7,000 ug/m^3)*
Benzene	0.49	8 1	OEHHA Acute REL (27 ug/m^3)* 8-hour and chronic OEHHA RELs (3 ug/m^3)*
Toluene	1.8	9,640 80	OEHHA Acute REL (37,000 ug/m^3)* OEHHA Chronic REL (300 ug/m^3)*
Ethylbenzene	0.55	450	OEHHA Chronic REL (2,000 ug/m^3)*
Xylenes	3.7	4,970 160	OEHHA Acute REL (22,000 ug/m^3)* OEHHA Chronic REL (700 ug/m^3)*

* OEHHA RELs listed in micrograms per cubic meter (ug/m^3) have been converted to ppbv using the molecular weight of each specific chemical. http://oehha.ca.gov/air/allrels.html

Real Time Monitoring Results

The real time monitoring logs are attached. In-field air monitoring results are summarized as follows:

- Methane (as indicated by %LEL), VOCs, benzene, toluene, ethylbenzene, and xylenes were not detected during field monitoring.
- Hydrogen sulfide was detected at a maximum concentration of 0.003 ppmv, well below the OEHHA acute REL of 0.03 ppmv.

The majority of the regulatory limits we are comparing against are Reference Exposure Levels (RELs) developed and published by California's Office of Environmental Health Hazards (OEHHA). OEHHA is one of six agencies under the umbrella of the California Environmental Protection Agency (Cal/EPA). OEHHA's overall mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.

OEHHA evaluates health effects of chemicals found in indoor air, including developing Reference Exposure Levels for use with indoor air exposure scenarios. OEHHA participates in a number of inter-Agency activities designed to evaluate indoor air quality health issues and to move California toward safer indoor air quality. OEHHA provides health-related assistance to health officers.

Methane was compared to the DTSC Site-Specific Screening Level for ambient indoor and outdoor air as well as the NIOSH maximum recommended safe methane concentration for workers during an 8-hour period.

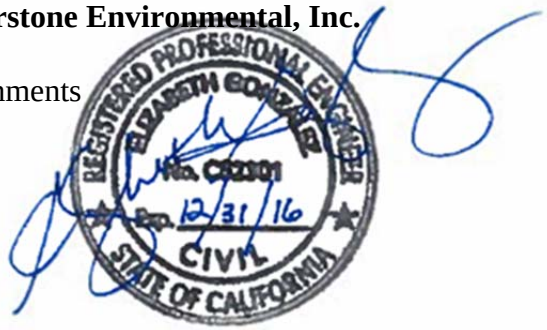
As shown in the table above, the maximum on-site detections are well below the published environmental regulatory limits.

Sincerely,

Elizabeth Gonzalez, P.E.
Principal Engineer
Waterstone Environmental, Inc.

Grace Rinck, CIH
Principal Industrial Hygienist
Aurora Industrial Hygiene

Attachments



DIRECT READING
WEATHER MONITORING LOG

CLIENT: **Los Angeles Unified School District** DATE: 01/19/2016

INSTRUMENT: **Vantage Pro 2 Weather Station** BY: Rob Pitzer

LOCATION: **Beckford Avenue Elementary School**

TIME	Wind Speed (mph)	Wind Direction	Temperature (*F)	Humidity (%)	Daily Rain (in)	Rain Rate (per day)	Barometric Pressure (in Hg)	Task
0811	0	E	56	80	0	0.00	29.19	First Read After Set up
0838	2	SE	56	82	0	0.00	29.19	
1135	1	S	58	77	0	0.00	29.18	
1259	5	SE	60	74	0	0.00	29.14	
1337	0	S	59	78	0	0.00	29.14	Starting to Drizzle
1437	0	SW	57	91	0.05	0.008	29.15	

COMMENTS: mph = miles per hour; *F = degrees Fahrenheit; in = inches; in Hg = inches of Mercury; % = percent

SSW = south to southwest

DIRECT READING
AIR MONITORING LOG

CLIENT: Los Angeles Unified School District DATE: 01/19/16 PAGE 1 of 4

LOCATION: Beckford Avenue Elementary School BY: Rob Pitzer

INSTRUMENT: **Ultra RAE 3000 Photo Ionization Detector**

BENZENE FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

BENZENE SENSOR CALIBRATION VALUE: ____ ppmv CALIBRATION READING: ____ ppmv

INSTRUMENT: **Multi RAE**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

CALIBRATION VALUE: H2S ____ ppmv CO ____ ppmv LEL ____ % O2 ____ % IB ____ ppmv

CALIBRATION READING: H2S ____ ppmv CO ____ ppmv LEL ____ % O2 ____ % IB ____ ppmv

INSTRUMENT: **Jerome J631X Hydrogen Sulfide Analyzer**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Return to Manufacturer for Calibration)

CALIBRATION VALUE: N/A Factory Calibrated CALIBRATION READING: Manufacturer Calibration Only

TIME	VOCs (ppmv)	Benzene (ppmv)	% LEL	Hydrogen Sulfide (ppmv)	Drager Tubes				Location
					Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)	
0705	0.00	--	0	0.000	--	--	--	--	Main Office Area
0713	0.00	--	0	0.000	--	--	--	--	Quad Area by Flag
0738	0.00	--	0	0.000	--	--	--	--	Kindergarten Playground
0741	0.00	--	0	0.000	--	--	--	--	Lower Lab
0816	0.00	--	0	0.001	--	--	--	--	Upper Lab
0819	0.00	--	0	0.002	--	--	--	--	Auditorium
0852	--	--	--	--	ND	ND	ND	ND	Main Office Area
0915	0.00	--	0	0.002	--	--	--	--	Auditorium
0918	0.00	--	0	0.003	--	--	--	--	Lunch Pavilion
1923	0.00	--	0	0.002	--	--	--	--	SW Corner of Playground
0926	0.00	--	0	0.001	--	--	--	--	SE Corner of Playground

Weather Conditions: Partly Cloudy Wind Speed: 0 mph Wind Direction: East Temperature: 56 ° F

Comments: The UltraRAE is used for measuring Volatile Organic Compound (VOC) and Benzene. The MultiRae is used for measuring VOCs and %LEL (used as an indicator of the potential presence of methane). The Jerome J631X is used for measuring Hydrogen Sulfide. Drager tubes are used for measuring Benzene, Toluene, Xylene and Ethylbenzene. %LEL is used as an indicator of methane but is not chemical specific. VOC readings are an indicator of all volatile constituents and are not chemical specific. Real time readings are used to guide sample collection. Samples collected daily are submitted to a laboratory for analyses.

H2S = Hydrogen Sulfide; **O2** = Oxygen; **%** = percent; **CO** = Carbon Monoxide; **LEL** = Lower Explosive Limit; **IB** = Isobutylene **ND** = Not Detected; **ppmv** = parts per million by volume; **N/A** = Not Applicable; **--** = No Reading (no measurement taken at this time)

DIRECT READING
AIR MONITORING LOG

CLIENT: Los Angeles Unified School District DATE: 01/19/16 PAGE 2 of 4

LOCATION: Beckford Avenue Elementary School BY: Rob Pitzer

INSTRUMENT: **Ultra RAE 3000 Photo Ionization Detector**

BENZENE FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

BENZENE SENSOR CALIBRATION VALUE: ____ ppmv CALIBRATION READING: ____ ppmv

INSTRUMENT: **Multi RAE**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

CALIBRATION VALUE: H2S ____ ppmv CO ____ ppmv LEL ____ % O2 ____ % IB ____ ppmv

CALIBRATION READING: H2S ____ ppmv CO ____ ppmv LEL ____ % O2 ____ % IB ____ ppmv

INSTRUMENT: **Jerome J631X Hydrogen Sulfide Analyzer**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Return to Manufacturer for Calibration)

CALIBRATION VALUE: N/A Factory Calibrated CALIBRATION READING: Manufacturer Calibration Only

TIME	VOCs (ppmv)	Benzene (ppmv)	% LEL	Hydrogen Sulfide (ppmv)	Drager Tubes				Location
					Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)	
0930	0.00	--	0	0.001	--	--	--	--	Inside Bungalow 25
0934	0.00	--	0	0.003	ND	ND	ND	ND	Kindergarten Playground
0951	0.00	--	0	0.003	--	--	--	--	Lower Lab
0953	0.00	--	0	0.002	--	--	--	--	Quad Area by Flag
1109	0.00	--	0	0.002	ND	ND	ND	ND	Lunch Pavilion
1130	0.00	--	0	0.001	--	--	--	--	SW Corner of Playground
1134	0.00	--	0	0.001	--	--	--	--	SE Corner of Playground
1136	0.00	--	0	0.000	--	--	--	--	Inside Bungalow 19
1140	0.00	--	0	0.001	--	--	--	--	Kindergarten Playground
1142	0.00	--	0	0.001	--	--	--	--	Lower Lab
1205	0.00	0.00	0	0.001	--	--	--	--	Auditorium

Weather Conditions: Cloudy Wind Speed: 1 mph Wind Direction: South Temperature: 58 ° F

Comments: The UltraRAE is used for measuring Volatile Organic Compound (VOC) and Benzene. The MultiRae is used for measuring VOCs and %LEL (used as an indicator of the potential presence of methane). The Jerome J631X is used for measuring Hydrogen Sulfide. Drager tubes are used for measuring Benzene, Toluene, Xylene and Ethylbenzene. %LEL is used as an indicator of methane but is not chemical specific. VOC readings are an indicator of all volatile constituents and are not chemical specific. Real time readings are used to guide sample collection. Samples collected daily are submitted to a laboratory for analyses.

H2S = Hydrogen Sulfide; **O2** = Oxygen; **%** = percent; **CO** = Carbon Monoxide; **LEL** = Lower Explosive Limit; **IB** = Isobutylene **ND** = Not Detected; **ppmv** = parts per million by volume; **N/A** = Not Applicable; **--** = No Reading (no measurement taken at this time)

ES = Elementary School

DIRECT READING
AIR MONITORING LOG

CLIENT: Los Angeles Unified School District DATE: 01/19/16 PAGE 3 of 4

LOCATION: Beckford Avenue Elementary School BY: Rob Pitzer

INSTRUMENT: **Ultra RAE 3000 Photo Ionization Detector**

BENZENE FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

BENZENE SENSOR CALIBRATION VALUE: _____ ppmv CALIBRATION READING: _____ ppmv

INSTRUMENT: **Multi RAE**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

CALIBRATION VALUE: H2S _____ ppmv CO _____ ppmv LEL _____ % O2 _____ % IB _____ ppmv

CALIBRATION READING: H2S _____ ppmv CO _____ ppmv LEL _____ % O2 _____ % IB _____ ppmv

INSTRUMENT: **Jerome J631X Hydrogen Sulfide Analyzer**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Return to Manufacturer for Calibration)

CALIBRATION VALUE: N/A Factory Calibrated CALIBRATION READING: Manufacturer Calibration Only

TIME	VOCs (ppmv)	Benzene (ppmv)	% LEL	Hydrogen Sulfide (ppmv)	Drager Tubes				Location
					Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)	
1212	0.00	0.00	0	0.001	--	--	--	--	Upper Lab
1216	0.00	0.00	0	0.001	--	--	--	--	Lower Lab
1218	0.00	0.00	0	0.001	--	--	--	--	Inside Room 17
1221	0.00	0.00	0	0.001	--	--	--	--	SE Corner of Playground
1225	0.00	--	0	0.001	--	--	--	--	SW Corner of Playground
1229	0.00	--	0	0.001	ND	ND	ND	ND	Auditorium
1312	0.00	--	0	0.001	--	--	--	--	Inside Room #11
1314	0.00	--	0	0.002	--	--	--	--	Outside Between Upper and Lower
1317	0.00	--	0	0.000	--	--	--	--	Inside Bungalow #29
1324	0.00	--	0	0.001	--	--	--	--	Inside Bungalow #23
1328	0.00	--	0	0.002	--	--	--	--	SE Corner of Playground

Weather Conditions: Cloudy Wind Speed: 5-7 mph Wind Direction: S-SE Temperature: 60 ° F

Comments: The UltraRAE is used for measuring Volatile Organic Compound (VOC) and Benzene. The MultiRae is used for measuring VOCs and %LEL (used as an indicator of the potential presence of methane). The Jerome J631X is used for measuring Hydrogen Sulfide. Drager tubes are used for measuring Benzene, Toluene, Xylene and Ethylbenzene. %LEL is used as an indicator of methane but is not chemical specific. VOC readings are an indicator of all volatile constituents and are not chemical specific. Real time readings are used to guide sample collection. Samples collected daily are submitted to a laboratory for analyses.

H2S = Hydrogen Sulfide; **O2** = Oxygen; **%** = percent; **CO** = Carbon Monoxide; **LEL** = Lower Explosive Limit; **IB** = Isobutylene **ND** = Not Detected; **ppmv** = parts per million by volume; **N/A** = Not Applicable; **--** = No Reading (no measurement taken at this time)

DIRECT READING
AIR MONITORING LOG

CLIENT: Los Angeles Unified School District DATE: 01/19/16 PAGE 4 of 4

LOCATION: Beckford Avenue Elementary School BY: Rob Pitzer

INSTRUMENT: **Ultra RAE 3000 Photo Ionization Detector**

BENZENE FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

BENZENE SENSOR CALIBRATION VALUE: _____ ppmv CALIBRATION READING: _____ ppmv

INSTRUMENT: **Multi RAE**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Conduct Calibration)

CALIBRATION VALUE: H2S _____ ppmv CO _____ ppmv LEL _____ % O2 _____ % IB _____ ppmv

CALIBRATION READING: H2S _____ ppmv CO _____ ppmv LEL _____ % O2 _____ % IB _____ ppmv

INSTRUMENT: **Jerome J631X Hydrogen Sulfide Analyzer**

FUNCTION TEST: ☒ Pass (No Calibration Required) ☐ Fail (Return to Manufacturer for Calibration)

CALIBRATION VALUE: N/A Factory Calibrated CALIBRATION READING: Manufacturer Calibration Only

TIME	VOCs (ppmv)	Benzene (ppmv)	% LEL	Hydrogen Sulfide (ppmv)	Drager Tubes				Location
					Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)	
1330	0.00	--	0	0.001	--	--	--	--	SW Corner of Playground
1335	0.00	--	0	0.002	--	--	--	--	Library
1408	0.00	--	0	0.001	--	--	--	--	Upper Lab
1410	0.00	--	0	0.001	--	--	--	--	Lower Lab
1413	0.00	--	0	0.001	--	--	--	--	Library
1415	0.00	--	0	0.002	--	--	--	--	Auditorium
1418	0.00	--	0	0.001	--	--	--	--	Lunch Pavilion
1421	0.00	--	0	0.002	--	--	--	--	Main Office Area

Weather Conditions: Cloudy, Light Drizzle Wind Speed: 0 mph Wind Direction: S Temperature: 59 ° F

Comments: The UltraRAE is used for measuring Volatile Organic Compound (VOC) and Benzene. The MultiRae is used for measuring VOCs and %LEL (used as an indicator of the potential presence of methane). The Jerome J631X is used for measuring Hydrogen Sulfide. Drager tubes are used for measuring Benzene, Toluene, Xylene and Ethylbenzene. %LEL is used as an indicator of methane but is not chemical specific. VOC readings are an indicator of all volatile constituents and are not chemical specific. Real time readings are used to guide sample collection. Samples collected daily are submitted to a laboratory for analyses.

H2S = Hydrogen Sulfide; **O2** = Oxygen; **%** = percent; **CO** = Carbon Monoxide; **LEL** = Lower Explosive Limit; **IB** = Isobutylene **ND** = Not Detected; **ppmv** = parts per million by volume; **N/A** = Not Applicable; **--** = No Reading (no measurement taken at this time)

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME
Standard ☐ 48 hours ☐
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: 2.5 DAY

DELIVERABLES
EDD ☐
EDF ☐
LEVEL 3 ☐
LEVEL 4 ☐

PAGE: 1 OF 1

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.: 15-202
Project Name: LAUSD
Report To: ELIZABETH GONZALEZ
Company: WATERSTONE ENVIRONMENTAL INC.
Street: 2936 EAST CORONADO ST.
City/State/Zip: ANAHEIM, CA 92806
Phone& Fax: 714 414 1122 / 714 414 1166
e-mail:

BILLING
P.O. No.:
Bill to:

ANALYSIS REQUEST
TO 15 BTEX

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	CONTAINER TYPE	TO 15 BTEX					
H01904-01	BF - SUMMA - 2	1.19.16	0642			X					
↓ -02	BF - 2	↓	1045			X					

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
	WATERSTONE ENVIRONMENTAL	1.19.16
SAMPLED BY: ROBERT PITZER	COMPANY: WATERSTONE ENV. INC.	DATE/TIME: 1.19.16
RELINQUISHED BY	DATE/TIME: 1.19.16 1545	RECEIVED BY / DATE/TIME: 1/19/16 3441 PM
RELINQUISHED BY	DATE/TIME: 1/19/16 1718	RECEIVED BY / DATE/TIME: 1/19/16 1718
RELINQUISHED BY	DATE/TIME	RECEIVED BY / DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS (Courier) ATLI Other _____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCL **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other

Client:	**Waterstone Environmental**
Attn:	**Elizabeth Gonzalez**
Project Name:	**LAUSD Porter Ranch**
Project No.:	**15-202**
Date Received:	**01/19/16**
Matrix:	**Air**
Reporting Units:	**ppbv**

EPA Method TO15

Lab No.:	H011904-01		H011904-02					
Client Sample I.D.:	BF-SUMMA-2		BF-2					
Date/Time Sampled:	1/19/16 6:42		1/19/16 10:45					
Date/Time Analyzed:	1/22/16 9:53		1/20/16 11:37					
QC Batch No.:	160121MS2A1		160119MS3A1					
Analyst Initials:	DT		DT					
Dilution Factor:	0.20		0.20					
ANALYTE	**Result ppbv**	**RL ppbv**	**Result ppbv**	**RL ppbv**				
Toluene	0.93	0.20	1.8	0.20				
Ethylbenzene	ND	0.20	0.55	0.20				
p,&m-Xylene	0.39	0.20	2.4	0.20				
o-Xylene	ND	0.20	1.3	0.20				

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 1-22-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client:	**Waterstone Environmental**
Attn:	**Elizabeth Gonzalez**
Project Name:	**LAUSD Porter Ranch**
Project No.:	**15-202**
Date Received:	**01/19/16**
Matrix:	**Air**
Reporting Units:	**ppbv**

EPA Method TO15

Lab No.:	H011904-01		H011904-02					
Client Sample I.D.:	BF-SUMMA-2		BF-2					
Date/Time Sampled:	1/19/16 6:42		1/19/16 10:45					
Date/Time Analyzed:	1/22/16 9:02		1/20/16 11:37					
QC Batch No.:	160121MS3A1		160119MS3A1					
Analyst Initials:	DT		DT					
Dilution Factor:	0.20		0.20					
ANALYTE	**Result ppbv**	**RL ppbv**	**Result ppbv**	**RL ppbv**				
Benzene	0.40	0.20	0.49	0.20				

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 1-22-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: --
Attn: --
Project Name: --
Project No.: --
Date Received: --
Matrix: Air
Reporting Units: ppbv

EPA Method TO15
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	01/19/16			01/19/16		01/19/16					
QC Batch No.:	160119MS3A1			160119MS3A1		160119MS3A1					
Analyst Initials:	DT			DT		DT					
Dilution Factor:	0.20			1.0		1.0					
ANALYTE	Result ppbv	RL ppbv	SPIKE AMT. ppbv	Result ppbv	% Rec.	Result ppbv	% Rec.	RPD	Low %Rec	High %Rec	Max. RSD
Benzene	ND	0.20	5.0	4.82	96.5	4.90	98.0	1.6	70	130	30
Toluene	ND	0.20	5.0	4.87	97.3	4.80	96.0	1.4	70	130	30
Ethylbenzene	ND	0.20	5.0	5.49	110	5.12	102	7.1	70	130	30
p,&m-Xylene	ND	0.20	10	12.2	122	11.4	114	6.2	70	130	30
o-Xylene	ND	0.20	5.0	4.98	99.6	4.47	89.3	10.9	70	130	30

ND = Not Detected (below RL)
RL = Reporting Limit
* = Analyte is outside QC Criteria

Reviewed/Approved By: _____ Date: 1-22-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: --
Attn: --
Project Name: --
Project No.: --
Date Received: --
Matrix: Air
Reporting Units: ppbv

EPA Method TO15
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	01/22/16			01/22/16		01/22/16					
QC Batch No.:	160121MS2A1			160121MS2A1		160121MS2A1					
Analyst Initials:	DT			DT		DT					
Dilution Factor:	0.20			1.0		1.0					
ANALYTE	Result ppbv	RL ppbv	SPIKE AMT. ppbv	Result ppbv	% Rec.	Result ppbv	% Rec.	RPD	Low %Rec	High %Rec	Max. RSD
Toluene	ND	0.20	10	9.50	95.0	9.74	97.4	2.4	70	130	30
Ethylbenzene	ND	0.20	10	10.1	101	10.2	102	0.6	70	130	30
p,&m-Xylene	ND	0.20	20	20.9	105	21.1	106	0.9	70	130	30
o-Xylene	ND	0.20	10	10.4	104	10.5	105	0.8	10	130	30

ND = Not Detected (below RL)
RL = Reporting Limit
* = Analyte is outside QC Criteria

Reviewed/Approved By: _____ Date: 1-22-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: --
Attn: --
Project Name: --
Project No.: --
Date Received: --
Matrix: Air
Reporting Units: ppbv

EPA Method TO15
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			5PPBV LCS		5PPBV LCSD					
Date Analyzed:	01/22/16			01/22/16		01/22/16					
QC Batch No.:	160121MS3A1			160121MS3A1		160121MS3A1					
Analyst Initials:	DT			DT		DT					
Dilution Factor:	0.20			1.0		1.0					
ANALYTE	Result ppbv	RL ppbv	SPIKE AMT. ppbv	Result ppbv	% Rec.	Result ppbv	% Rec.	RPD	Low %Rec	High %Rec	Max. RSD
Benzene	ND	0.20	5.0	6.41	128	6.14	123	4.3	70	130	30

ND = Not Detected (below RL)
RL = Reporting Limit
* = Analyte is outside QC Criteria

Reviewed/Approved By: _____ Date: 1-22-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

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Quantum Analytical Services Inc.
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CLIENT	**WATERSTONE ENVIRONMENTAL**
PROJECT NO:	**LAUSD - SoCal Gas**
LABORATORY NO:	**16-049**
SAMPLING DATE:	**January 19, 2016**
RECEIVING DATE:	January 19, 2016
ANALYSIS DATE:	January 19-20, 2016
REPORT DATE:	January 21, 2016

Laboratory Analysis Report

Analysis Method	**SCAQMD 307-91**			
Detection Limits	**5.0 PPBV**			
	Client ID	**BF-Summa-2 (Tk 102)**	**BF-Bag-2**	**DA-Summa-1 (Tk 101)**	**DA-Bag-1**
	Sampling Time	**0642**	**1029**	**1438**	**0930**
	Sampling Date	**1/19/16**	**1/19/16**	**1/19/16**	**1/19/16**
	Lab ID	**01916-16**	**01916-17**	**01916-18**	**01916-19**
Analyte	**Units**	**PPBV**	**PPBV**	**PPBV**	**PPBV**
Hydrogen Sulfide		<5.0	<5.0	<5.0	<5.0
Carbonyl Sulfide		<5.0	<5.0	<5.0	<5.0
Methyl Mercaptan		<5.0	<5.0	<5.0	<5.0
Ethyl Mercaptan		<5.0	<5.0	<5.0	<5.0
Carbon Disulfide		<5.0	<5.0	<5.0	<5.0
t- Butyle Mercaptan		<5.0	<5.0	<5.0	<5.0
Tetra hydro-thiophene		<5.0	<5.0	<5.0	<5.0
Un-Identified S Compounds		<5.0	<5.0	<5.0	<5.0
TRS as H2S		**<40.0**	**<40.0**	**<40.0**	**<40.0**

TRS: Total Reduced Sulfur as Hydrogen Sulfide

PPBV: Parts Per Billion-Volume

Dr. Andrew Kitto
President

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CLIENT	**WATERSTONE ENVIRONMENTAL**
CLIENT PROJECT:	**LAUSD - SoCal Gas**
LAB PROJ NO:	**16-049**
SAMPLING DATE:	**January 19, 2016**
RECEIVING DATE:	January 19, 2016
ANALYSIS DATE:	January 19-20, 2016
REPORT DATE:	January 21, 2016

Quality Assurance Report

Duplicate Analysis

Sample ID: BF-Summa-2, Tk 102 LAB ID: 01916-16

Analysis Method		**SCAQMD 307-91**		
Detection Limit		**5.0 PPBV**		
Analyte	**Aver. Conc. PPBV**	**Dil. Factor Ambient Air**	**DF*A/CF PPBV**	**% Sample Recovery**
Hydrogen Sulfide	<5.0	1	<5.0	N/A
Carbonyl Sulfide	<5.0	1	<5.0	N/A
Methyl Mercaptan	<5.0	1	<5.0	N/A
Ethyl Mercaptan	<5.0	1	<5.0	N/A
Carbon Disulfide	<5.0	1	<5.0	N/A
t- Butyle Mercaptan	<5.0	1	<5.0	N/A
Tetra hydro-thiophene	<5.0	1	<5.0	N/A
Unidentified S Compounds	<5.0	1	<5.0	N/A
Total Sulfur as H2S	**<40.0**	**1**	**<40.0**	**N/A**

N/A: Not Applicable

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President

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CLIENT	**WATERSTONE ENVIRONMENTAL**
CLIENT PROJECT:	**LAUSD - SoCal Gas**
LAB PROJ NO:	**16-049**
SAMPLING DATE:	**January 19, 2016**
RECEIVING DATE:	January 19, 2016
ANALYSIS DATE:	January 19-20, 2016
REPORT DATE:	January 21, 2016

Laboratory Analysis Report

Analysis Method	**EPA 18**			
Detection Limits	**0.1 PPMV**			
	Sample ID	**BF-Summa-2 (Tk 102)**	**BF-Bag-2**	**DA-Summa-1 (Tk 101)**	**DA-Bag-1**
	Sample Time	**0642**	**1029**	**1438**	**0930**
	Sampling Date	**1/19/16**	**1/19/16**	**1/19/16**	**1/19/16**
	Lab ID	**01916-16**	**01916-17**	**01916-18**	**01916-19**
ANALYTE	**Units**	**PPMV**	**PPMV**	**PPMV**	**PPMV**
C1 - Methane		4.55	5.05	4.81	5.95
C2 - Ethane, Ethylene		<0.1	<0.1	<0.1	<0.1
C3 - Propane		<0.1	<0.1	<0.1	<0.1
Iso Butane		<0.1	<0.1	<0.1	<0.1
n- Butane		<0.1	<0.1	<0.1	<0.1
Iso-Pentane		<0.1	<0.1	<0.1	<0.1
n-Pentane		<0.1	<0.1	<0.1	<0.1
C6 - Hexanes		<0.1	<0.1	<0.1	<0.1
C6+		<0.1	<0.1	<0.1	<0.1
TNMHC		<1.0	<1.0	<1.0	<1.0

TNMHC - Total Non-Methane HydroCarbon
PPMV: Parts Per Million-Volume

Dr. Andrew Kitto
President

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CLIENT	**WATERSTONE ENVIRONMENTAL**
LAB PROJ NO:	**16-049**
SAMPLING DATE:	**January 19, 2016**
RECEIVING DATE:	January 19, 2016
ANALYSIS DATE:	January 19-20, 2016
REPORT DATE:	January 21, 2016

EPA 18 - Laboratory Analysis Report (QA-QC)

Sample ID: BF-Summa-2. Tk 102 — Sample ID: 01916-16

Analyte	Analysis #1 PPMV	Analysis #2 PPMV	Mean PPMV	% Difference from the Mean*
C1 - Methane	4.55	4.63	4.59	0.9
C2 - Ethane, Ethylene	<0.1	<0.1	<0.1	N/A
C3 - Propane	<0.1	<0.1	<0.1	N/A
iso-Butane	<0.1	<0.1	<0.1	N/A
n-Butane	<0.1	<0.1	<0.1	N/A
iso- Pentane	<0.1	<0.1	<0.1	N/A
n-Pentane	<0.1	<0.1	<0.1	N/A
C6 - Hexanes	<0.1	<0.1	<0.1	N/A
C6+	<0.1	<0.1	<0.1	N/A

N/A: Not Applicable

*:Must be ≤10%

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President

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CLIENT **WATERSTONE ENVIRONMENTAL**
LAB PROJ NO: **16-049**
SAMPLING DATE: **January 19, 2016**
RECEIVING DATE: January 19, 2016
ANALYSIS DATE: January 19-20, 2016
REPORT DATE: January 21, 2016

Quality Control/Quality Assurance Report

I- Blank

Lab ID	Results PPMV
C1 - Methane	<0.1
C2 - Ethane	<0.1
C3 - Propane	<0.1
C4 - Butane	<0.1
C5 - Pentane	<0.1
C6 - Hexane	<0.1

II- Initial Calibration Verification Standard (ICV)

Lab ID	Theoretical Value PPMV	Tested Value PPMV	% Recovery*
C1 - Methane	14.99	15.00	100%
C2 - Ethane	15.12	15.14	100%
C3 - Propane	15.27	15.26	100%
C4 - Butane	15.04	15.03	100%
C5 - Pentane	15.04	15.08	100%
C6 - Hexane	14.95	14.75	99%

* Must be ±10%

Dr. Andrew Kitto
President

16-049 № 7965

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CHAIN OF CUSTODY

Page: 1 of: 1

Client: WATERSTONE ENVIRONMENTAL INC.

Contact Person: E. GONZALEZ
tel: 714 414 1122
fax: 714 421 1160

Project No.: 15-202
Project Name: LAUSD
Project Manager: E. GONZALEZ
P.O. Number:

Turnaround Time:
- ☐ Same Day
- ☐ 24 Hours
- ☒ 48 Hours 2.5 day
- ☐ Normal

Client Sample ID	Tag #	Date	Time	Lab ID Number	SCAQMD 307-91	EPA 18					Remarks
BF-SUMMA-2	102	1.19.16	0642	0916-16	X	X					MAIN OFFICE AREA
BF-2		↓	1029	-17	X	X					AUDITORIUM

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
	1-19-16 / 1645		1/19/16 16:45
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time

16-049 № 7939

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CHAIN OF CUSTODY

Page: 1 of: 1

Client: Waterstone Environmental
2936 E. Coronado St.
Anaheim, CA 92806

Contact Person: E. Gonzalez
tel: 714-414-1122
fax: 714-414-1166

Project No.: 15-202
Project Name: LAUSD-Porter Ranch
Project Manager: E. Gonzalez
P.O. Number: _____

Analysis: SCAQMD 307-91 Sulfur Compounds; EPA 18 Hydrocarbon Speciation

Turnaround Time:
- ☐ Same Day
- ☐ 24 Hours
- ☒ 48 Hours 2.5 day
- ☐ Normal

Client Sample ID	Tag #	Date	Time	Lab ID Number	SCAQMD 307-91	EPA 18					Remarks
DA-Summa-1	101	1-19-16	1438	01916-18	X	X					Init. press = -30, final = -6" Hg
DA-1	-	1-19-16	930	-19	X	X					

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
	1-19-16 / 1645		1/19/16 16:45
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time