

WATERSTONE ENVIRONMENTAL, INC.

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

Re: Analytical Results for Porter Ranch Community School in Porter Ranch, California

Please find attached laboratory reports a portion of the samples collected on Wednesday December 9, 2015 and Thursday December 10, 2015. Although I expect to receive additional laboratory reports for sampling conducted during this period this letter is intended to transmit the analytical results completed to date.

Sample Collection and Analysis

Attached laboratory reports received to date for sample collection on Wednesday December 9, 2015 are results of one grab sample (over a 5 minute period) collected in tedlar bag as well as new 8-hour sample collected in a summa canister indoors at the school. Samples were submitted for analysis of sulfur compounds by SCAQMD Method 307-91, hydrocarbon speciation by modified EPA 18, and BTEX by EPA Method TO-14.

Attached laboratory reports received to date are for sample collection on Thursday December 10, 2015 are results of three grab samples (over a 5 minute period) collected in tedlar bags at various locations at the school. The three tedlar bag samples were submitted for analysis of benzene, toluene, ethylbenzene and xylene (BTEX) by EPA Method TO-14/TO-15.

Analytical and Real Time Monitoring Results

The sample IDs created to refer to Porter Ranch Community School are designated with a "PR" in the sample ID. The analytical results for Porter Ranch Community 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 12,940 parts per billion by volume (ppbv) and below the environmental screening limits for methane of 500,000 ppb 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.



- ➤ Ethane/ethylene was detected at a maximum concentration of 460 ppbv and below the level of 1,000,000 ppbv ethane or the level of 2,000,000 ppbv ethylene used by NIOSH for an 8-hour worker exposure.
- ➤ Toluene was detected at a maximum concentration of 1.8 ppbv and below the level of 9,640 ppbv toluene Reference Exposure Level (RELs) developed and published by California's Office of Environmental Health Hazards (OEHHA).
- > Xylenes were detected at a maximum concentration of 1.1 ppbv and below the level of 4,970 ppbv xylene REL developed and published by OEHHA.
- ➤ Benzene and ethylbenzene were not detected at Porter Ranch Community School.

	Maximum On-site	Environmental	
	Detection	Regulatory	
Analyte	(ppbv)	Limit (ppbv)	Environmental Regulatory Limit Description
Sulfide	None	30 (Hydrogen	California Ambient Air – 1 hour and OEHHA Acute REL
Compounds		Sulfide)	$(42 \text{ ug/m}^3)^*$
		7 (Hydrogen Sulfide)	OEHHA Chronic REL (10 ug/m³)*
Methane	12,940	500,000	DTSC Site-Specific Screening Level (for ambient indoor and outdoor air).
			http://www.hawaiidoh.org/references/CalEPA%202005b.pdf
		1,000,000	NIOSH maximum recommended safe methane
			concentration for workers during an 8-hour period.
			http://www.cdc.gov/niosh/ipcsneng/neng0291.html
Ethane,	460	1,000,000	NIOSH maximum recommended safe ethane concentration
Ethylene			for workers during an 8-hour period.
			http://www.cdc.gov/niosh/ipcsneng/neng0266.html
		2,000,000	NIOSH maximum recommended safe ethylene
			concentration for workers during an 8-hour period.
			http://www.cdc.gov/niosh/ipcsneng/neng0475.html
Other	None	1,950 (Hexane)	OEHHA Chronic REL (7,000 ug/m³)*
Hydrocarbon Speciations by			
EPA 18			
Benzene	None	8	OEHHA Acute REL (27 ug/m³)*
		1	8-hour and chronic OEHHA RELs (3 ug/m³)*
Toluene	1.8	9,640	OEHHA Acute REL (37,000 ug/m ³)*
		80	OEHHA Chronic REL (300 ug/m³)*
Ethylbenzene	None	450	OEHHA Chronic REL (2,000 ug/m³)*
Xylenes	1.1	4,970	OEHHA Acute REL (22,000 ug/m³)*
		160	OEHHA Chronic REL (700 ug/m³)*

^{*} OEHHA RELs listed in micrograms per cubic meter (ug/m³) have been converted to ppbv using the molecular weight of each specific chemical. http://oehha.ca.gov/air/allrels.html



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 the Air Resources Board, air pollution control districts, local health officers and environmental 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, PAE

Principal Engineer

Waterstone Environmental, Inc.

Attachments

Jeffrey V. Dagdigian, PhD

Managing Principal Environmental Scientist

Waterstone Environmental, Inc.