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By Alameda County Environmental Health 3:53 pm, Oct 19, 2015

October 13, 2015

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6540

I, Reid Settlemier, hereby authorize ERAS Environmental, Inc. to submit the Work Plan for Soil Gas and Sub Slab Soil Gas Investigation for 3037-3115 Adeline St., Oakland in Oakland, California, dated October 12, 2015 to the Alameda County Health Care Services Agency.

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.

Signature: 

Printed Name: B. Reid Settlemier

Reid Settlemier
RWW Properties LLC
6114 LaSalle Avenue, #535
Oakland, CA 94611
reid@rww-llc.com

ERAS Environmental, Inc.

1533 B Street
Hayward, CA 94541

(510) 247-9885 Facsimile: (510) 886-5399 info@eras.biz

October 12, 2015

Mr. John Murray
John Murray Productions
1196 32nd Street
Oakland, CA 94608

Subject: Work Plan for Soil Gas and Sub Slab Soil Gas Investigation
3037-3115 Adeline Street, Oakland, California
ERAS Project Number 14-002-04

Dear Mr. Murray:

ERAS Environmental, Inc. (ERAS) is pleased to present this Work Plan for Soil Gas and Sub Slab Soil Gas Investigation for the subject site (the "Property"). This work was requested by Mark Detterman on October 9, 2015 via a phone call.

The following is the proposed scope for the investigation.

- ERAS proposes two soil gas sample locations which will include one in the vicinity of previous boring PES-B2 and one just inside the building.

- The sample collected in the vicinity of PES-B2 will be collected at a depth of 5 feet below the bottom of the foundation for the building (usually 18 inches). The Standard Operating Procedures for Soil Gas Sampling is attached.

- The sample just inside the building will be collected from just below the concrete slab foundation of the building. The Standard Operating Procedures for Sub Slab Soil Gas Sampling is attached.

- A shroud will be utilized and sampled at each sampling location.

- Submit the sample to a state certified laboratory for analysis for benzene toluene, ethylbenzene, and xylenes (BTEX) along with and naphthalene by EPA Method TO-15. The samples will also be analyzed for methane (CH4)/CO2/O2 by EPA Method 18.

- The shroud sample will be analyzed for 1,1difluoroethane by TO-3.

- The results of the sampling and analysis will be presented in report that will be certified by a Registered Professional Geologist.

A map displaying the proposed sample locations is attached.

If you have questions or comments regarding this addendum of the information in the workplan please contact me at 510-247-9885 x304, or by e-mail dave@eras.biz.

ERAS thanks you for the opportunity to serve you.

Sincerely,
ERAS Environmental, Inc.

Curtis Payton
California Registered Professional Geologist 5608

David Siegel
Senior Program Manager

Attachments:

Standard Operating Procedures – Soil Gas Sampling
Standard Operating Procedures – Sub Slab Soil Gas Sampling
Extent & Boring Location Map

STANDARD OPERATING PROCEDURES

STANDARD OPERATING PROCEDURE
–SOIL GAS SAMPLING

The collection of soil gas samples will not be conducted in the event of precipitation or heavy irrigation. 5-days of dry weather and the lack or heavy irrigation is required prior to the collection of the vapor samples.

The installation of the sample probes and the sampling procedures follows the Department of Toxic Substances Control, California Environmental Protection Agency, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air Vapor Intrusion Guidance document dated October 2011. Along with the California Environmental Protection Agency, Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, San Francisco Regional Water Quality Control Board, Advisory for Active Soil Gas Investigations dated April 2012.

Sample rods are driven to the desired depth. A soil-gas sampling tubing system is inserted into the rods and connected to an expandable point. The rods are retracted a desired 6-inch interval and the expandable drive point on the bottom of the rods is opened. Hydrated bentonite is placed around where the drill rod exits the ground and where the tubing enters the rods in order to prevent surface air migrating down the inner and outer portion of the rods. The bentonite will be allowed to hydrate and expand for at least 30 minutes prior to purging the sample line.

The soil gas sample is collected into a Summa canister. A summa canister is a stainless steel vessel which has had the internal surfaces specially passivated using a "Summa" process. The Summa canister arrives pre-cleaned from the laboratory and with an internal vacuum between 25" Hg and 30" Hg. Prior to use, the pressure in the summa canister is checked by the sampler with a pressure gauge to ensure a vacuum of at least 25" Hg for quality control purposes.

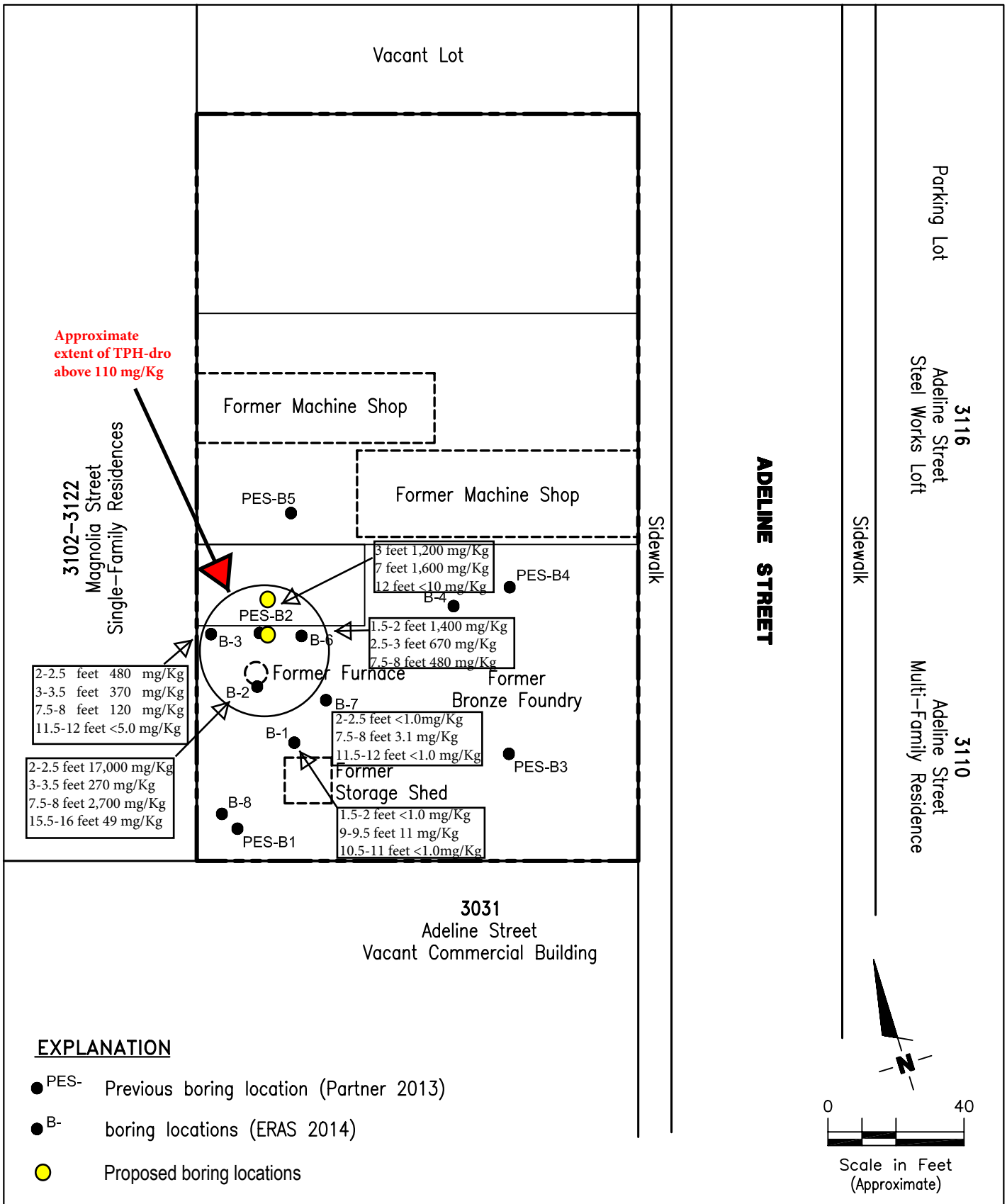
A sampling manifold is connected to the sample tubing which originated from the target depth for the sample collection. The sample manifold is connected to a purge Summa canister and a sample Summa canister. The sample manifold contains a gauge to display the vacuum remaining in the canister, valves to isolate the sample train, a particulate filter, and a flow controller to maintain a low purge rate.

A leak test is performed on the sampling manifold prior to sample collection. A vacuum is applied and required to stabilize and remain at the same pressure for a time period of 30 minutes. Once the leak test has been performed a vacuum is applied to the tubing to purge at least three volumes of air from the sample tubing at a purge rate from 100 to 200 ml/min.

The valve on the summa canister is opened, and the soil-gas sample is drawn into the canister. The sample tubing will be checked for water. If observed, the sample will be discarded. The sample collection will be stopped with about 5-inches Hg remaining in the Summa canister. The soil-gas samples will be transferred under chain-of-custody procedures to a state certified laboratory for analyses.

As a leak detector aerosol dust removal containing 1,1-Difluoroethane (1,1-DFA) will be used in a shroud during sample collection. Analysis of the sample for 1,1-Difluoroethane will indicate if ambient air entered the sample. A sample of the shroud will also be collected and analyzed for 1,1-DFA.

PROPOSED SAMPLE LOCATION MAP



EXTENT & BORING LOCATION MAP

3037, 3101 & 3115 Adeline Street
Oakland, California

REVIEWED BY
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FIGURE
1

ERAS Environmental Inc.

ERAS 11-02-2014 Boring location map.dwg