



May 4, 2012

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

RECEIVED

8:51 am, May 15, 2012

Alameda County
Environmental Health

SITE: ALAMEDA ISLANDER MOTEL
2428 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

RE: ADDITIONAL GROUNDWATER ASSESSMENT WORKPLAN

Dear Mr. Wickham:

On behalf of The Alameda Islander, L.P., Strategic Engineering & Science is submitting this Additional Groundwater Assessment Workplan for the Alameda Islander Motel located at 2428 Central Ave in Alameda, California. This workplan is being prepared in response to discoveries made during the ongoing site renovation, and in accordance with phone correspondence with ACEH.

In addition, I, Daniel Sawislak, the Site representative, 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.

If you have any questions regarding this document, please contact Mark Trevor at (510) 451-1761 or Brian Saliman at (415) 297-2258.

Sincerely,

Mark Trevor, P.G.
Senior Project Geologist
Strategic Engineering & Science, Inc.

Daniel Sawislak
Executive Director





ATTACHMENT:

Additional Groundwater Assessment Workplan



ADDITIONAL GROUNDWATER ASSESSMENT WORKPLAN

**Alameda Islander Motel
2428 Central Avenue
Alameda, CA**

**Prepared By:
Strategic Engineering & Science, Inc.
110 11th Street
Oakland, California 94607
(510) 451-1761**

ADDITIONAL GROUNDWATER ASSESSMENT WORKPLAN

**Alameda Islander Motel
2428 Central Avenue
Alameda, CA**

PREPARED FOR:

City of Alameda Housing Development

PREPARED BY:

Strategic Engineering & Science, Inc.
110 11th Street, 2nd Floor
Oakland, California

May 01, 2012



Mark Trevor, P.G.
Senior Project Geologist



Mohammad Bazargani, P.E.
Principal Engineer

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1.0 INTRODUCTION

On behalf of City of Alameda Housing Development, Strategic Engineering & Science, Inc. (SES) has prepared this workplan for additional groundwater assessment activities at the Alameda Islander Motel, located at 2428 Central Avenue, Alameda, California (Site) (Figure 1).

During construction activities at the Site, a hydraulic elevator “plunger” was removed from the cavity of the former elevator. The plunger measured approximately 40 feet in length when fully removed. Several machined holes were noted along the length of the plunger. Upon removal, heavy oil or hydraulic oil was observed leaking out of the holes of the plunger. The purpose of this proposed investigation is to determine if hydraulic oil or heavy oil is present in groundwater downgradient of the Site.

2.0 SITE DESCRIPTION AND BACKGROUND

The Site is located on the southern corner of the intersection of Central and Park Avenues in the City of Alameda, California. A multistory building under renovations occupies the Site. Properties to the north and east are developed for commercial uses. A residential neighborhood is situated to the west and south.

According to previous reports, a Chevron service station operated at the Site from 1947 until 1970. The station facilities were abandoned on January 27, 1970. One 7,500 gallon and three 3,000 gallon underground storage tanks (USTs) were removed from the Site along with the associated product piping. Confirmation soil samples were not collected at the time of the removal of the Site USTs and station abandonment. The Site was then leased to the post office from early 1970 until Chevron sold the Site to Stahl Wooldridge Construction Company in February 1971.

In 1973, a multi-story motel was constructed at the Site. The main motel structure consists of a three-story building constructed above an at-grade parking garage. The rear auxiliary building is a single-story structure constructed at grade. A concrete-paved parking lot is present between the two structures. An aged hydroelectric elevator is present at the northwestern corner of the main motel building.

3.0 PREVIOUS INVESTIGATIONS

In June 1993, two soil borings (EB-1 and EB-2) were advanced near the former dispenser island and former UST pit, respectively. Groundwater was encountered at approximately 10 feet below grade (fbg). Soil samples collected from borings EB-1 and EB-2 at 5 fbg did not contain detectable concentrations of Total Petroleum Hydrocarbons as gasoline (TPH-G), Total Petroleum Hydrocarbons as diesel (TPH-D), or benzene, toluene, ethylbenzene, and xylenes (BTEX) at the following detection limits:

- TPH-G/TPH-D: 0.05 mg/kg
- BTEX: 0.0005 mg/kg

The soil sample collected from boring EB-1 at 10 fbg contained 211 milligrams per kilogram (mg/kg) of TPH-D and 7.94 mg/kg of benzene. The grab groundwater sample collected from boring EB-1 contained 27,870 micrograms per liter ($\mu\text{g/l}$) of TPH-D and 1,782 $\mu\text{g/l}$ of benzene. The grab groundwater sample collected from EB-2 did not contain detectable concentrations of TPH-G, TPH-D, or BTEX at the following detection limits:

- TPH-G/TPH-D: 50 $\mu\text{g/L}$
- BTEX: 0.5 $\mu\text{g/L}$

Groundwater monitoring wells MW-1 through MW-3 were installed in April 1994. Groundwater was encountered at approximately 7 fbg. Soil samples collected from borings MW-1 through MW-3 at 5 fbg and MW-3 at 10 fbg did not contain detectable concentrations of TPH-G, TPH-D, or BTEX. The soil sample collected from MW-1 at 10 fbg contained TPH-G (1,300 mg/kg) and TPH-D (3,000 mg/kg). The soil sample collected from boring MW-2 at 10 fbg contained detectable concentrations of TPH-G (3,000 mg/kg), TPH-D (340 mg/kg) and benzene (8 mg/kg). However, these soil samples were collected from below the static groundwater elevation at the time of installation. The groundwater sample collected from well MW-1 contained detectable concentrations of TPH-G (7,400 $\mu\text{g/l}$), TPH-D (840 $\mu\text{g/l}$), and benzene (120 $\mu\text{g/l}$). The groundwater sample collected from well MW-2 contained detectable concentrations of TPH-G (6,400 $\mu\text{g/l}$) and TPH-D (920 $\mu\text{g/l}$). The laboratory concluded that the TPH-D chromatogram pattern was indicative of weathered gasoline, not diesel. According to Gettler Ryan, as stated in their April 18, 1997 *Risk Based Corrective Action Report*, based on available records Chevron never distributed diesel at this Site. TPH-G, TPH-D, or BTEX were not detected in groundwater sample collected from MW-3.

Three offsite groundwater wells (MW-4, MW-5, and MW-6) were installed in August 1996. Groundwater was encountered at 7.5 fbg. Soil samples collected from borings MW-4 through MW-6 did not contain detectable concentrations of TPH-G, TPH-D, BTEX, or methyl tert butyl ether (MTBE). Groundwater samples collected from the newly installed wells did not contain TPH-G, TPH-D, BTEX, or MTBE compounds.

Quarterly groundwater monitoring and sampling was initiated at the Site in March 1994 and continued through September 1998. ORC was introduced into monitoring wells MW-1 and MW-2 on May 21, 1998. The introduction of ORC was to enhance natural attenuation processes in and around these wells. The effects of the remediation were not evaluated beyond the final monitoring and sampling event in September of that year. No further information was available.

During the last monitoring and sampling event (September 26, 1998), the groundwater sample collected from MW-1 contained TPH-G (1,400 $\mu\text{g/l}$), benzene (75 $\mu\text{g/l}$), ethylbenzene (1.1 $\mu\text{g/l}$), and total xylenes (2.2 $\mu\text{g/l}$). Groundwater samples collected from MW-2 contained detectable concentrations of TPH-G (610 $\mu\text{g/l}$), benzene (18 $\mu\text{g/l}$),

toluene (0.58 µg/l), total xylenes (1.1 µg/l), and MTBE (10 µg/l). Hydrocarbons were not detected in monitoring wells MW-3 through MW-6 during the monitoring and sampling program.

A summary of groundwater concentrations over time is included as Table 1, and the concentration vs. time plots are included as Appendix A. A review of the primary COC concentrations over time suggests that in both wells (MW-1 and MW-2) TPH-G and MTBE decreased between 1996 and 1998, while benzene concentrations showed no clear trend.

In 1999, Gettler Ryan Inc. prepared a Risk Management Plan (RMP). The RMP included several risk management measures for the Site.

In 2001, the six monitoring wells associated with the Site were abandoned by pressure grouting. A “Fuel Leak Site Case Closure“ letter for the Site was issued by the Alameda County Health Care Services Agency on December 27, 2001, which accepted the risk management measures proposed by Gettler Ryan, Inc.

In 2011, fourteen (14) direct-push soil borings were advanced at various locations around the Site. Eight (8) soil borings (SB-1 through SB-8) were advanced to depths ranging between 15 and 20 fbg for the collection of grab groundwater samples. Concentrations of TPH-G above ESLs, were confined to areas near the former USTs (SB-3 and SB-5), former dispenser islands (SB-8), and at one downgradient location (SB-6). Concentrations of TPH-D, above ESLs were confined to an area near the former USTs (SB-3 and SB-5). Concentrations of the VOC naphthalene were confined to areas near the former USTs (SB-3) and the former dispenser islands (SB-8). However, groundwater at the Site is not a domestic or industrial source; domestic water needs are supplied by a municipal system unaffected by the Site. Additionally, current and historical sampling data suggest that the contamination plume is contained onsite to the area near and north of the former USTs and dispenser islands.

Additionally, six (6) borings (SG-1 through SG-6) were advanced to approximately 5 fbg for the collection of soil gas samples. TPH-G, BTEX, MTBE, and chlorinated solvents concentrations were not detected above California Human Health Screening Levels (CHHSLs) in any of the soil vapor samples collected.

4.0 SCOPE OF WORK

The following summarizes the scope of work for the additional groundwater assessment activities:

- Complete two (2) direct-push soil borings to approximately 40 feet below grade for the collection of depth-discreet “hydropunch” groundwater samples. Groundwater samples will be collected at 10 feet intervals in each boring beginning at first-encountered groundwater.

- Laboratory analysis of collected groundwater samples.
- Submittal of summary report documenting assessment activities and results.

5.0 SITE ASSESSMENT ACTIVITIES

5.1 Pre-Field Activities

Prior to the commencement of field activities, all necessary permits will be obtained from the applicable regulatory agencies. Underground Service Alert (USA) will be notified at least two business days prior to the commencement of field activities so that public utility companies will locate their lines.

A health and safety plan that promotes personnel safety and preparedness during the planned activities has previously been developed for investigation activities and will be maintained on Site during field activities. On the morning of the day that the field activities are to commence, a “tailgate” safety meeting will be conducted with applicable field workers to discuss the health and safety issues and concerns related to the specific work.

5.2 Hydropunch Borings

Two (2) direct-push soil borings will be advanced to approximately 40 feet below grade at the locations depicted in Figure 2. Every ten feet, a Hydropunch sampling device will be used to collect groundwater samples from the water column. Approximately 4 groundwater samples are anticipated from each boring.

Hydropunch sampling devices consist of a stainless steel probe, advanced into the water-yielding zone. The probe is then withdrawn to expose an internal screen. Ground water will be collected from inside the screen using a Teflon bailer then placed in appropriate sample bottles.

After sampling is completed, borings will be properly sealed with cement grout.

5.3 Groundwater Analysis

Groundwater samples from the soil borings will be submitted to a State-certified laboratory for analysis. The selected samples will be properly preserved and transported to the laboratory under appropriate chain-of-custody protocol.

The laboratory will analyze groundwater samples for the following constituents:

- TPH as diesel (EPA 8015)
- TPH as hydraulic oil (EPA 8015)

Data collected during groundwater sampling activities will be evaluated by comparing groundwater constituent concentrations to Environmental Screening Levels (ESLs) for Groundwater (groundwater is not a current or potential drinking water source). Screening criteria will be included with data summarized in tables contained within the summary report.

6.0 WASTE DISPOSAL

Waste generated during site assessment activities will be stored onsite in Department of Transportation (DOT) approved drums pending profiling and disposal to an approved disposal/recycling facility. Waste manifests will be prepared for proper transport and disposal of the waste.

7.0 SUMMARY REPORT

A report summarizing sampling activities will be prepared and will include the following elements:

- Site map showing sampling locations
- Description of field work performed
- Tabulated results groundwater sample analyses and copies of laboratory reports
- Evaluation of findings
- Recommendations for future action

8.0 WORK SCHEDULE

The planned activities will begin immediately upon ACEHS approval of the Workplan. A Summary Report will be submitted within three to four weeks of the receipt of all analytical results.

FIGURES



NOT TO SCALE

Vicinity Map
2428 Central Avenue
Alameda, California

Figure 1

05/24/11



P:\CAD\0208 City of Alameda\2428CentralAve\0208_2428 Central Ave Alameda_Fig 2.dwg 4/25/12 15:03

LEGEND

- — — — — APPROXIMATE PROPERTY LINE
- EXISTING STRUCTURES
- ⊗ PROPOSED SOIL BORINGS

CENTRAL AVENUE

PARK AVENUE

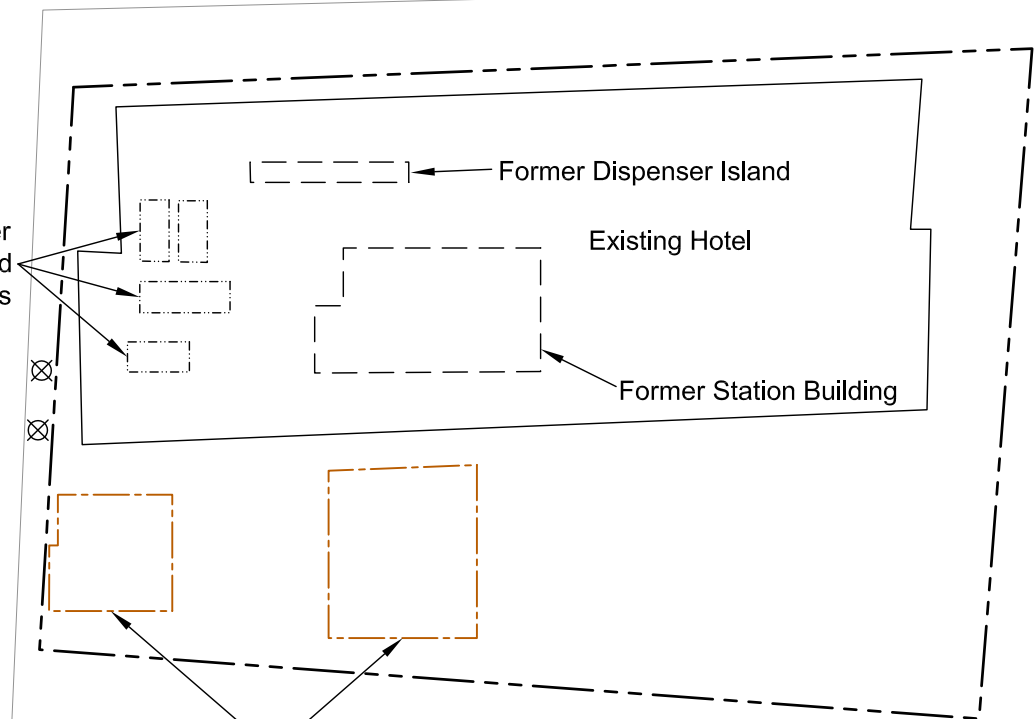
Former Underground Storage Tanks

Former Dispenser Island

Existing Hotel

Former Station Building

Proposed Development



N



**Site Plan Showing
Proposed Soil Borings**

2428 Central Avenue
Alameda, California

Figure 2

April
2011

