RO 2526

URS

March 11, 2004

Mr. Don Hwang
Hazardous Services Specialist
Alameda County Environmental Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Second Addendum to Work Plan for Additional Investigation
Active Arco Service Station #2107
3310 Park Boulevard
Oakland, California
Fuel Leak Case No. RO0002526
URS Project No. 38486013

Dear Mr. Hwang:

At the request of Atlantic Richfield Company (ARCO), URS Corporation (URS) is pleased to submit this Second Addendum to the Work Plan to investigate the lateral and vertical extent of soil and groundwater contamination at ARCO Service Station #2107, located at 3310 Park Boulevard in Oakland, California (Site) (see Figure 1). This Second Addendum has been prepared to acknowledge changes requested in a January 9, 2004 letter (Attachment A) from the Alameda County Environmental Health Agency after review of the original Addendum to Work Plan for Additional Investigation. The letter requested that soil samples be collected at a minimum every five feet, including samples at changes in lithology, at the soil/groundwater interface, and at areas of obvious contamination. Also, the letter requested that URS include Ethanol by EPA Method 8260 in groundwater analysis, and include the lead scavengers [1,2-Dichloroethane (1,2-DCA) and 1,2-Dibromoethane (EDB)] in soil and groundwater analysis.

The soil investigation will consist of 10 Geoprobe soil borings advanced to approximately 25 feet. Depending on subsurface conditions, the borings may need to extend deeper until impervious soil is encountered. In addition to notifying Underground Safety Alert (USA), a private utility surveyor will be contracted to mark underground utilities and the borings will be hand augered to a minimum depth of 5 feet. The soil will be lithologically logged by an on-Site geologist and field screened using a photo-ionization detector (PID). At a minimum, soil samples will be collected every five feet. Soil samples will also be collected at changes in

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lithology, at the soil/groundwater interface, and at areas of obvious contamination. Collected samples will be covered at each end with Teflon™ sheeting, capped with plastic end caps, labeled, and placed in an ice-filled cooler for preservation. Sample labels will include sample name, sample depth interval, sampling time and date, analytical methods and sampler's initials. All samples will be transported under chain-of-custody protocol to Sequoia Analytical, a California State-certified analytical laboratory.

Soil samples will be analyzed for the following constituents by EPA Method 8260B: total petroleum hydrocarbons as gasoline (TPH-g), Benzene, Ethybenzene, Toluene, total Xylenes (BTEX), fuel oxygenates [methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA)], and lead scavangers 1,2-DCA and EDB. Additionally, one grab groundwater sample will be collected from each location, submitted to Sequoia Analytical, and tested for the same analytes, as well as Ethanol by EPA Method 8260B.

Boring locations have been chosen to best characterize the subsurface conditions and have been designated SB-1 through SB-10 (Figure 1). SB-1, 2, and 3 are located upgradient of the Site. SB-4 is directly down gradient from the highest detection of MTBE. SB-6, 7 and 10 are located directly down gradient from the potentially impacted area. SB-5, 8, and 9 are located further down gradient of the potentially impacted area and near the Site boundary. Results of the investigation will be presented to Alameda County in a Site Investigation Report following evaluation of the data by URS.

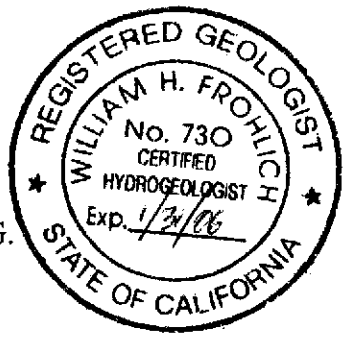
Sample handling, equipment decontamination, and surveying procedures are discussed in the *Work Plan for Additional Investigation, Active Arco Station #2107*, submitted to Alameda County Environmental Health on June 11, 2003.

We appreciate the opportunity to present this addendum to the Work Plan to Alameda County Environmental Health and trust that this document meets with your approval. If you have any questions or comments regarding this addendum, please feel free to contact me at 510.893.3600.

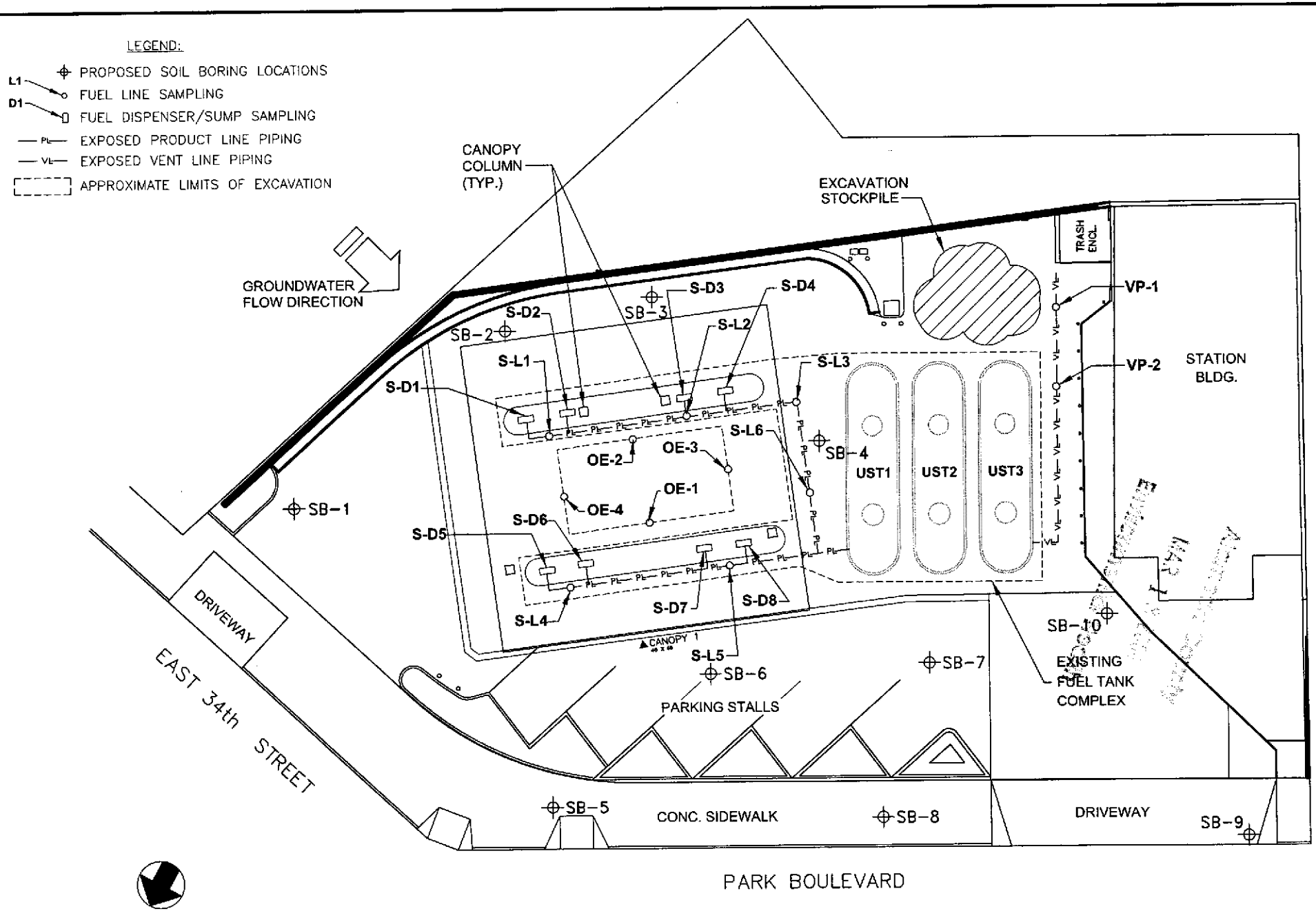
Sincerely,
URS Corporation

Scott Robinson
Project Manager

William Frohlich, C.HG., C.E.G.
Senior Geologist



Attachments: Figure 1 – Soil Boring Location Map
Attachment A – Alameda County Environmental Health Letter



URS	Project No. 38486503 ARCO Service Station 2107 3310 Park Boulevard Oakland, California	**PROPOSED SOIL BORING LOCATIONS**

FIGURE
1

ATTACHMENT A

ALAMEDA COUNTY ENVIRONMENTAL HEALTH LETTER

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

January 9, 2004

Paul Supple
Atlantic Richfield Co.
P.O. Box 6549
Moraga, CA 94570

Dear Mr. Supple:

Subject: Fuel Leak Case No. RO0002526, Arco #2107, 3310 Park Blvd., Oakland, CA 94610

Alameda County Environmental Health (ACEH) staff has reviewed "Work Plan for Additional Investigation" dated June 11, 2003 and "Addendum to Work Plan for Additional Investigation" dated October 29, 2003, both prepared by URS Corp. 10 "Geoprobe" borings are proposed to better characterize to subsurface conditions prior to the installation of monitoring wells. We generally concur with the work proposed. We request that you address the following technical comments and send us the technical reports requested below.

TECHNICAL COMMENTS

1) Soil Sampling –

a) Instead of collecting soil boring samples every 5 ft., as proposed, soil samples shall be collected at a minimum of every 5 ft., including at changes of lithology, at the soil/groundwater interface, and at areas of obvious contamination. Log borings.

b) The borings will be advanced to a sufficient depth to collect water samples. However, the borings may need to extend deeper until impervious soil is encountered.

Please revise your proposal for soil sampling and include in the Work Plan Addendum requested below.

2) Soil and Groundwater Analyses – In addition to the analyses proposed, we request that you also include Ethanol by EPA Method 8260 for groundwater analyses, and the lead scavengers, Ethylene Dibromide (EDB), Ethylene Dichloride (EDC) for soil and groundwater analyses. As with the fuel oxygenates, if any of the latter compounds are detected, and are determined to be of concern (poses a risk to human health, the environment, or water resources) it is to be incorporated into your regular monitoring plan. Please include these revisions in the Work Plan Addendum requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Don Hwang), according to the following schedule:

March 9, 2004 – Workplan Addendum
60 days after Work Plan approval – Soil and Water Investigation Report

These reports are being requested pursuant to the Regional Water Quality Control Board's (Regional Board) authority under Section 13267 of the California Water Code. If you have any questions, please call me at (510) 567-6746.

Sincerely,

Don Hwang
Hazardous Materials Specialist
Local Oversight Program

C: Scott Robinson, URS Corp., 55 S. Market St., Suite 1500, San Jose, CA 95113
Donna Drogos
File