



July 14, 2005

Mr. Barney Chan
Division of Environmental Protection
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Reference: Alameda County Fuel Leak Case RO0000453

Subject: Work Plan Addendum to *Review of Investigation and Remediation Results And Work Plan for Additional Investigation at Former Celis' Alliance Service Station Site (URS, April 2005)*

Dear Mr. Chan:

On behalf of the City of Emeryville Redevelopment Agency (the City), OTG Enviro-Engineering Solutions, Inc. (OTG) is pleased to submit this Work Plan Addendum to the report of *Review of Investigation and Remediation Results and Work Plan for Additional Investigation at the Former Celis' Alliance Service Station Site*, prepared by URS Corporation (April 2005). This Work Plan Addendum is prepared in response to your review comments contained in your 29 June 2005 letter to the URS report.

Rather than to install two additional monitoring wells directly (URS-MW-1 and URS-MW-2) as proposed in the URS report, eight (8) new soil borings are proposed as the first step to delineate the downgradient area extent of petroleum hydrocarbon contaminations originating from the former leaking underground fuel storage tanks (USTs) located at the former Celi's Alliance Service Station site. The number of additional wells, their locations and construction details will be decided later based on the soil and groundwater data collected from the eight new soil borings and from previous investigation data. Details of the proposed new borings are discussed below.

PROPOSED INVESTIGATION PROGRAM

The soil and groundwater investigation is proposed as a phased approach where subsequent work phases will expand upon the findings of prior work phases. Locations of the proposed eight new soil borings are shown on Figure 4. URS-SB-1 through URS-SB-5 are located in a downgradient transect perpendicular to the petroleum hydrocarbon plume. URS-SB-5 also

464 19th Street, Suite 206, Oakland, CA 94612
(510) 465-8982, fax (510) 868-0667

Mailing Address:
P.O. Box 70125, Oakland, CA 94612

serves as the purpose of verifying whether petroleum hydrocarbons may have migrated across the San Pablo Avenue through a paleo streambed channel identified on the SNK Andante Redevelopment Area. URS-SB-6 is located near the downgradient edge of the plume across 40th Street from the existing monitoring well LFMW-4. URS-SB-7 and URS-SB-8 are located for investigating potential migration through underground utility lines along the northbound of the San Pablo Avenue. Groundwater data from monitoring well MW-5 installed by the San Joaquin Company (SJC) on the northbound pedestrian lane of San Pablo Avenue between 40th and 41st Street suggests that such preferential migration may have occurred.

Specific details of the soil boring program are outlined below:

- Pre-drilling details include: developing a site health and safety plan; obtaining soil boring permits from Alameda County Public Works Agency and encroachment permits from the City of Emeryville and Caltrans for borings on Caltrans' right-of-way; underground utility clearance (obtaining as-built drawings, contacting Underground Service Alert [USA], contracting to an independent utility locator to clear proposed locations and hand augering to 5 feet bgs prior to drilling).
- The soil borings will be drilled with a geoprobe or hollow stem auger rig from which continuous cores of the soil column will be obtained and logged by an onsite geologist.
- The soil borings will extend to 20 feet below ground surface (bgs). Shallow groundwater is expected to be present at about 5 to 10 feet bgs.
- The soil cores will be screened with an organic vapor analyzer equipped with a photo-ionization detector (PID) to evaluate the presence or absence of volatile organic compounds.
- To collect groundwater samples from each borehole, a temporary well casing (1"-diameter, Schedule 40 PVC) will be inserted into each of the eight boreholes, within which grab groundwater samples will be collected using disposable bailers.
- The grab groundwater sample and selected soil samples from each boring (assume 4 per soil boring at 5, 10, 15, and 20 feet bgs, respectively, or as selected by the onsite geologist based on field observations) will be submitted to a State of California certified environmental analytical laboratory under chain-of-custody protocol. The samples will be analyzed for TPH gas, diesel, paint solvents, BTEX and MTBE.
- After the completion of grab groundwater collection, all boreholes will be backfilled with neat cement/bentonite grout from total depth to land surface following the water district borehole sealing requirements.
- Soil cuttings and decontamination water will be stored in a central on-site location in properly labeled DOT approved 55-gallon drums awaiting final disposal option selection.

Reporting

The initial soil and groundwater investigation will be followed by a letter report outlining investigation findings and recommendations for the installation of additional groundwater monitoring wells, if necessary. The text of the report will be supported with summary tables and figures along with hard copies of geotechnical and chemical analyses results.

Please feel free to contact the undersigned at (510) 465-8982 if you have questions or comments.

Sincerely,
OTG EnviroEngineering Solutions, Inc.



Xinggang Tong, PhD, PE
Project Manager



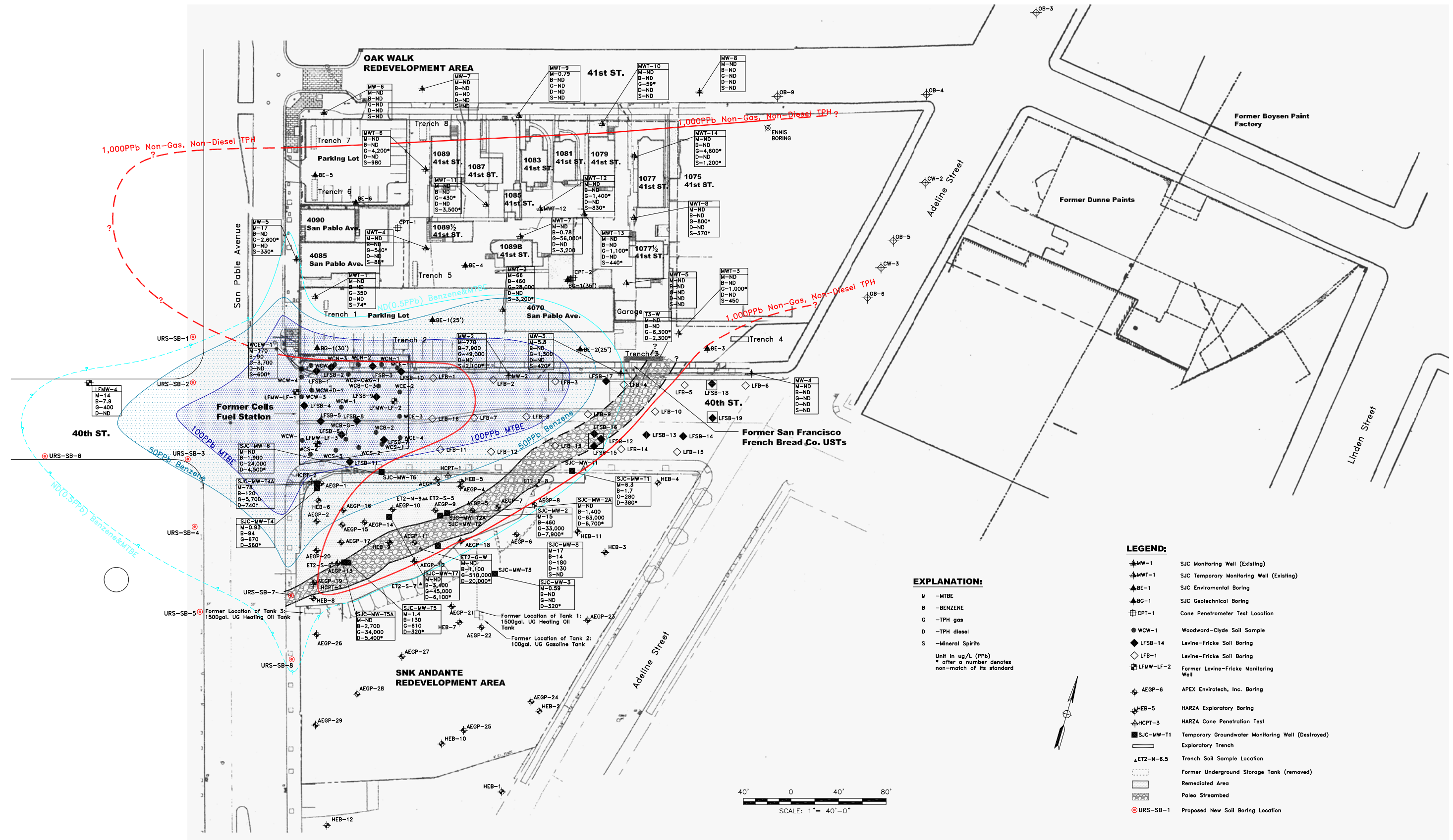
cc: Ignacio Dayrit, City of Emeryville

Attachment:

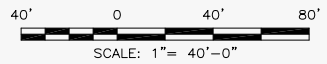
Figure 4 – Proposed Additional Boring Locations



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- LEGEND:**
- MW-1 SJC Monitoring Well (Existing)
 - MWT-1 SJC Temporary Monitoring Well (Existing)
 - BE-1 SJC Environmental Boring
 - BG-1 SJC Geotechnical Boring
 - CPT-1 Cone Penetrometer Test Location
 - WCW-1 Woodward-Clyde Soil Sample
 - LFSB-14 Levine-Fricke Soil Boring
 - LFB-1 Levine-Fricke Soil Boring
 - LFMW-LF-2 Former Levine-Fricke Monitoring Well
 - AEGP-6 APEX Envirotech, Inc. Boring
 - HEB-5 HARZA Exploratory Boring
 - HCPT-3 HARZA Cone Penetration Test
 - SJC-MW-T1 Temporary Groundwater Monitoring Well (Destroyed)
 - Exploratory Trench
 - ET2-N-6.5 Trench Soil Sample Location
 - Former Underground Storage Tank (removed)
 - Remediated Area
 - Paleo Streambed
 - URS-SB-1 Proposed New Soil Boring Location
- EXPLANATION:**
- M - MTBE
 - B - BENZENE
 - G - TPH gas
 - D - TPH diesel
 - S - Mineral Spirits
- Unit in ug/L (PPb)
 * after a number denotes non-match of its standard



Base Map From The San Joaquin Company, Inc. (Dec 2004)

REV	DESCRIPTION OF REVISION	BY	DATE

CLIENT
 STREET ADDRESS
 CITY, STATE



1333 BROADWAY, SUITE 800
 Oakland, CA 94612
 Tel: (510) 893-3600
 Fax: (510) 874-3268

DESIGNED	
DRAWN	MS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	
DATE	

Proposed Additional Boring Locations	
FORMER CELIS FUEL STATION SITE, SNK ANDANTE REDEVELOPMENT AREA AND OAK WALK REDEVELOPMENT AREA EMERYVILLE, CA.	

REVISION	1
PROJECT	26814847
FIGURE	4