CAMBRIA

May 27, 1999

Mr. Amir K. Gholami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

STID 4022

Re: **Investigation Work Plan Addendum**
Shell-branded Service Station
2120 Montana Ave.
Oakland, California
Incident # 98995740
SAP Code - 135675
Cambria Project # 241-0733-006

Dear Mr. Gholami:

On behalf of Equiva Services LLC (Equiva), Cambria Environmental Technology, Inc. (Cambria) has prepared this work plan addendum in response to the Alameda County Health Care Services Agency (ACHCSA) letter to Equilon Enterprises LLC dated April 21, 1999. In the letter, you requested Equilon investigate the surrounding properties to evaluate groundwater flow gradient prior to determination of the actual sample locations. Following is a summary of Cambria's findings regarding groundwater flow direction in the site vicinity and our proposed amended work plan.

ACHCSA FILE REVIEW

On May 21, 1999, Cambria conducted a file review at the ACHCSA to identify records of environmental sites in the vicinity of the subject property. Cambria identified one active environmental site in the vicinity of the Shell-branded service station for which the ACHCSA had records. The site identified is located at 2662 Fruitvale Avenue in Oakland. The 2662 Fruitvale Avenue site is located approximately 3,300 feet south of the Shell-branded service station and is situated on similar topography as the 2120 Montana Avenue site. Groundwater contour maps for the 2662 Fruitvale Avenue site are presented in Attachment A. Groundwater beneath the 2662 Fruitvale Avenue site appears to flow towards the west to southwest. Therefore, we can make a reasonable assumption that groundwater beneath the Shell-branded service station located approximately 3,300 away likely flows towards the west to southwest.

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

PROPOSED AMENDED SCOPE OF WORK

To determine the extent of hydrocarbons in groundwater beneath the site, we propose advancing three soil borings using a Geoprobe® direct-push rig (Figure 1). Soil and grab groundwater samples will be analyzed for TPHg, TPHd, BTEX, and oxygenates. Proposed locations for the three soil borings are shown on Figure 1. These locations were selected based on assumed groundwater flow direction and previously identified hydrocarbon source areas.

Our scope of work for this investigation includes the following tasks.

Utility Location: Cambria will notify Underground Service Alert (USA) of our drilling activities. USA will have the utilities in the site vicinity identified. Due to proximity of the proposed soil boring to the active pump islands, we will review available engineering plans for the site, and if necessary, survey the location using a private line locating firm.

Site Health and Safety Plan: We will prepare a comprehensive site safety plan to protect site workers. The plan will be kept on site during field activities and signed by each site worker.

Permits: We will obtain permits for the installation of the borings from the Alameda County Public Works Agency.

Soil Borings: Assuming the absence of overhead and subsurface obstructions, Cambria will drill three soil boring at the location shown on Figure 1. We will collect soil samples at five foot intervals, at lithologic changes, and from just above the water table. Once groundwater is encountered, a grab groundwater sample will be collected using a hydropunch. Upon completion of the sampling, the borings will be sealed with neat cement grout. We will select soil samples for chemical analysis based on observations of staining and odor and on the results of field screening with a photo-ionization detector. Our standard field procedures for Geoprobe® sampling are presented as Attachment B.

Chemical Analysis: Selected soil and groundwater samples will be analyzed for TPHg and TPHd by modified EPA Method 8015, BTEX by EPA Method 8020, and oxygenates MTBE, TAME, DIPE, ETBE, TBA, EDB and EDC by EPA Method 8260.

Reporting: After we receive the analytical results, we will prepare a report that, at a minimum, will contain:

- A summary of the site background and history;
- Descriptions of the drilling and sampling methods;
- Boring logs;
- Tabulated soil and groundwater analytical results;
- Analytical reports and chain-of-custody forms; and
- A discussion of the hydrocarbon distribution in soil and groundwater.

SCHEDULE

Upon receiving written approval of this work plan from the ACHCSA, Cambria will obtain necessary permits and schedule drilling.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Darryk Ataide, REA I
Project Manager

Ailsa Le May R.G.
Senior Geologist

REGISTERED GEOLOGIST
AILSA S. LE MAY
NO. 6717
STATE OF CALIFORNIA

Figures: 1 - Site Map
Attachments: A - Groundwater Contour Maps for 2662 Fruitvale Avenue, Oakland
B - Standard Field Procedures for Geoprobe Sampling

cc: Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, CA 90749-6249

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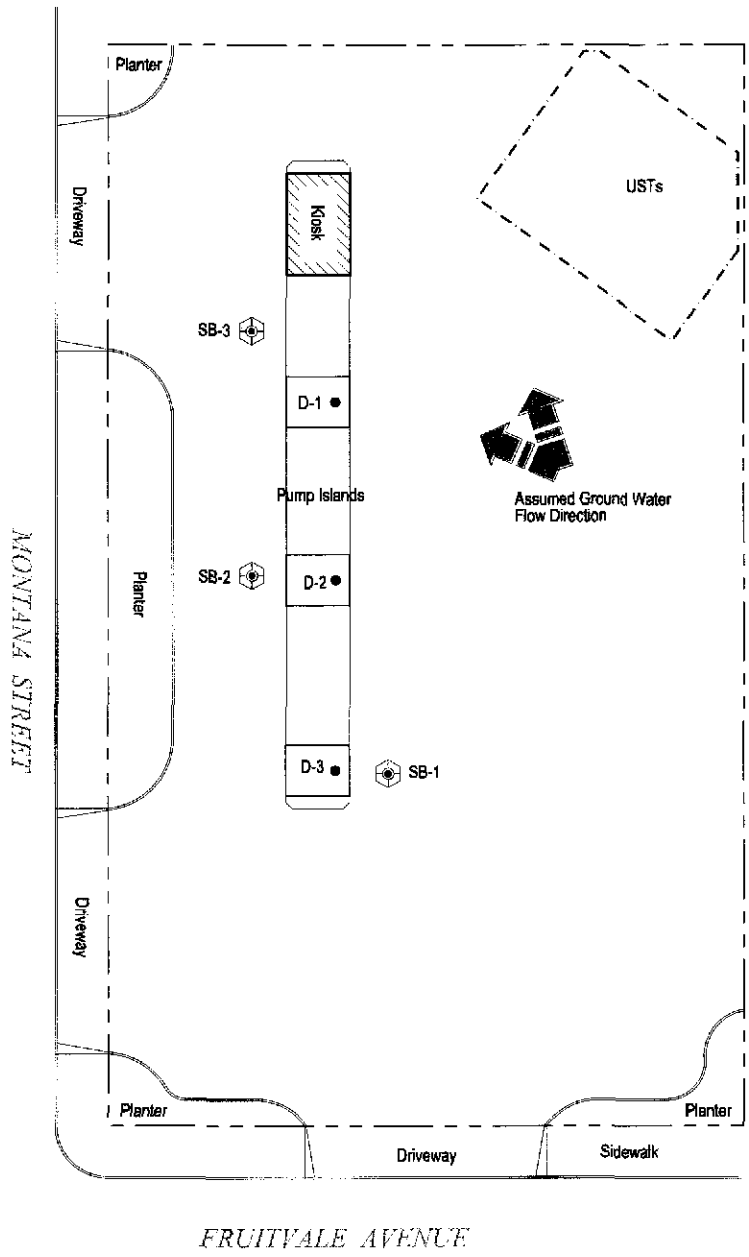

EXPLANATION

SB-1 Proposed Soil Boring and Hydropunch Location

D-1 Soil Sampling Location

N

0 15 30

Scale (ft)

FIGURE 1

G:\OAK2120\FIGURES\SITE-MAP.DWG

Shell-branded Service Station
2120 Montana Street
Oakland, California
Incident #98995740

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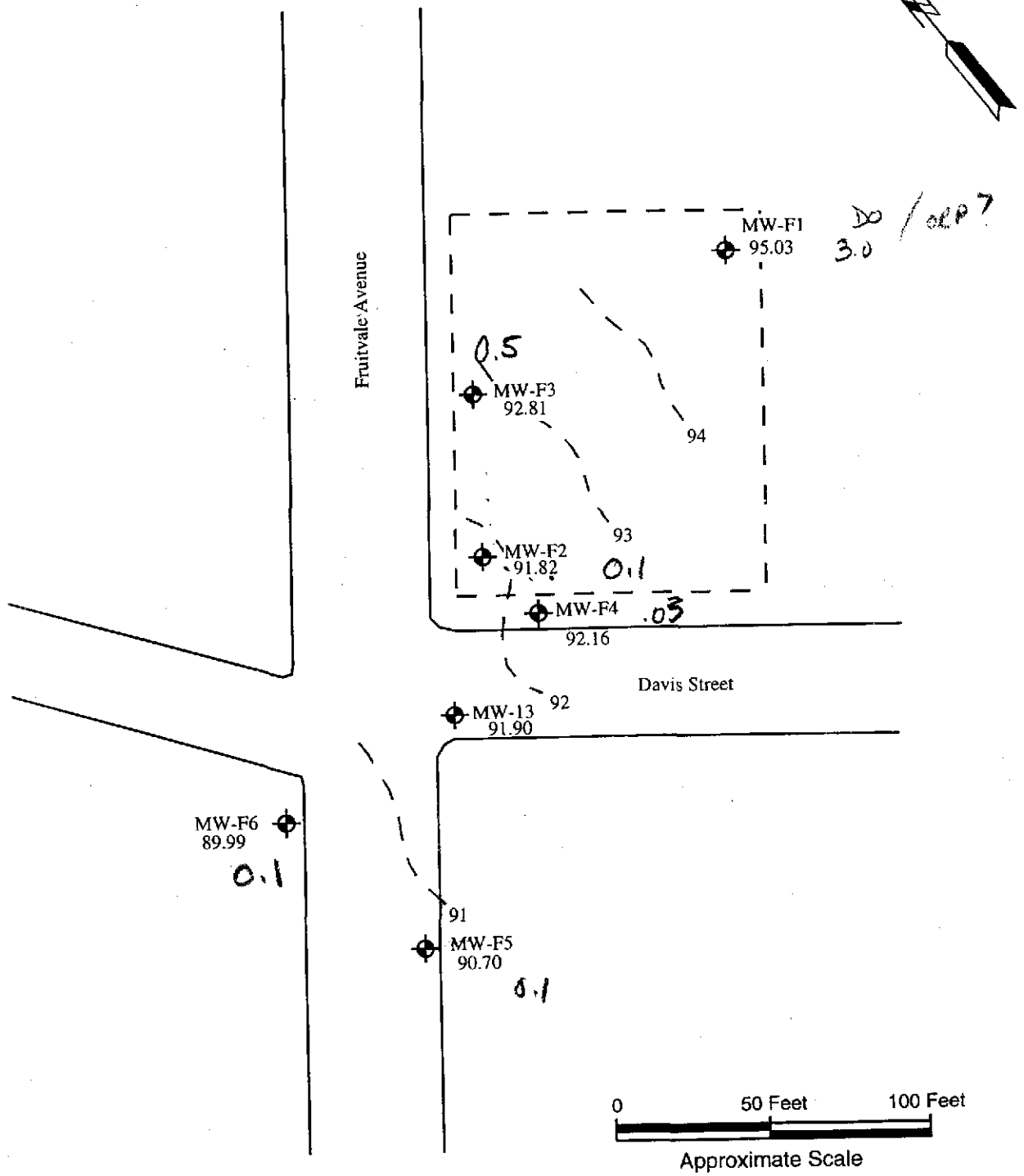
Site Map

Attachment A

Groundwater Contour Maps for 2662 Fruitvale Avenue, Oakland

97-037F-1-Wells



Legend

- Approximate Location of Monitoring Wells
- 90.70 Groundwater Elevations
- Lines of Equal Groundwater Elevations
- (0.02) Product Thickness on December 11, 1998

Source: Modified from Figure 3, Groundwater Elevation Contour Map, 13 December 1996, BASELINE.

FIGURE 1

GROUNDWATER ELEVATIONS MEASURED ON DECEMBER 11, 1998

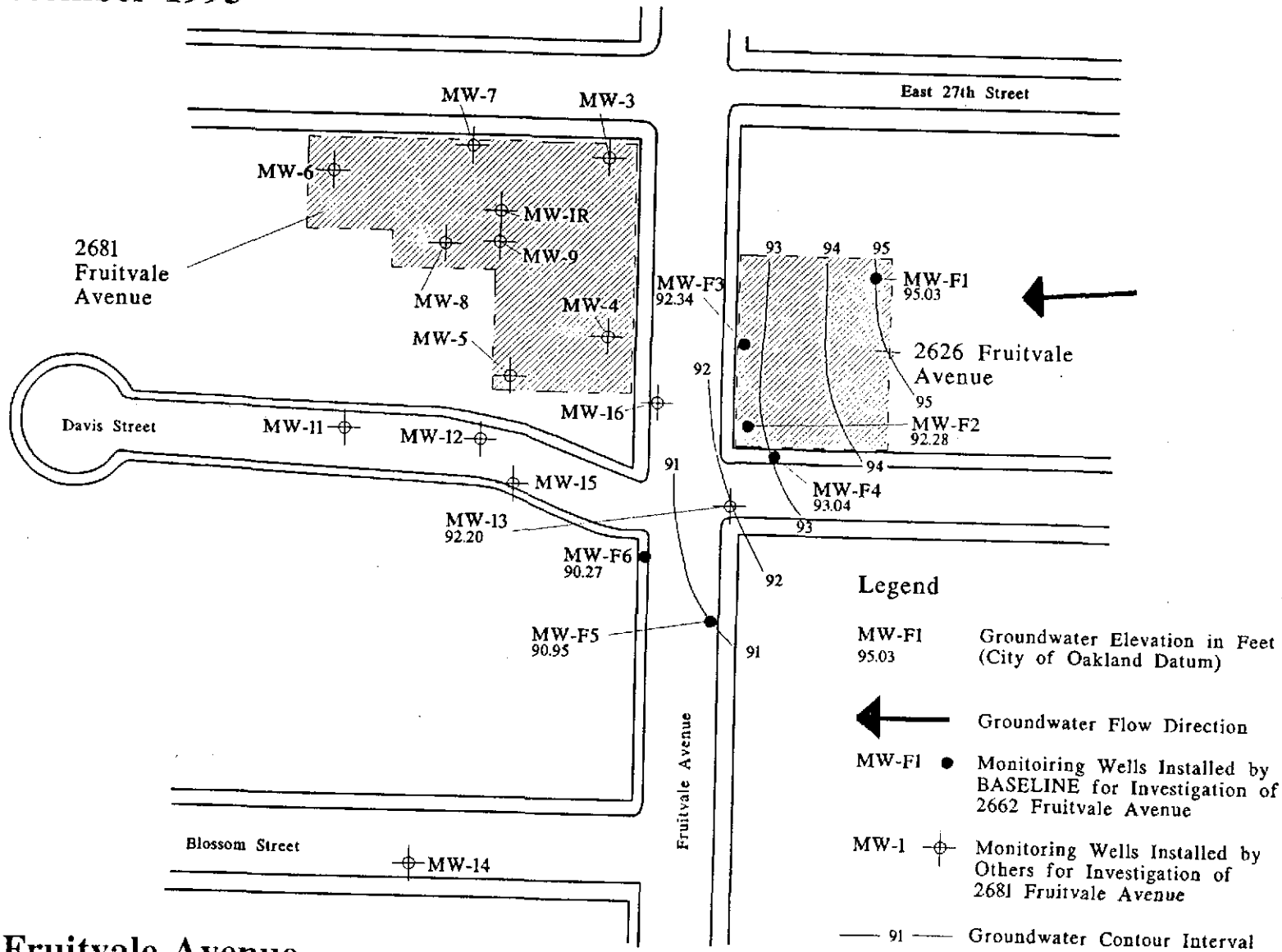
2662 Fruitvale Avenue
Oakland, California

CITY OF OAKLAND

ITSI
INNOVATIVE TECHNICAL SOLUTIONS, INC.

GROUNDWATER ELEVATION MAP
29 December 1995

Figure 3



2662 Fruitvale Avenue
Oakland, California

Source: Base Map - Modified from Groundwater Technology, Inc., 1993, Site Plan Map.

92404-DO 1/18/96, Cadd File N, 92404DO

BASELINE

Attachment B

Standard Field Procedures for Geoprobe Sampling

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STANDARD FIELD PROCEDURES FOR GEOPROBE® SAMPLING

This document describes Cambria Environmental Technology's standard field methods for GeoProbe® soil and ground water sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e., sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or separate-phase hydrocarbon saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e., cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Sampling

GeoProbe® soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech® or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Grab Ground Water Sampling

Ground water samples are collected from the open borehole using bailers, advancing disposable Tygon® tubing into the borehole and extracting ground water using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.