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CAMBRIA

August 4, 2005

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Site Investigation Work Plan**
Former Shell Service Station/Current KFC Restaurant
2800 Telegraph Avenue
Oakland, California
Incident No. 97093398
Fuel Leak Case No. RO0000009

Dear Mr. Wickham:

Cambria Environmental Technology, Inc. (Cambria) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). This document was prepared in response to the June 15, 2005 Alameda County Health Care Services Agency (ACHCSA) letter requesting submittal of a work plan. Presented below are a description of the site and the proposed scope of work. The proposed work will be performed in accordance with ACHCSA and San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) guidelines.

SITE LOCATION AND DESCRIPTION

The subject site is located on the northeast corner of Telegraph Avenue and 28th Street in Oakland, California (Figures 1 and 2). The site used to be a Shell service station, but the station was demolished in 1992. The site is currently operated as a fast-food restaurant (Kentucky Fried Chicken). A sensitive receptor survey performed in 2001 did not indicate the presence of any wells within ½ mile of the site. The nearest surface water bodies are Glen Echo Creek located ¼ mile east (upgradient) of the site and Lake Merritt located over ½ mile to the southeast of the site. Surrounding property use is primarily commercial.

WORK PLAN

Technical Rational for Proposed Scope of Work

The June 15, 2005 ACHCSA responds to Cambria's November 30, 2004 *Groundwater Monitoring Report – Second and Third Quarter 2004 and Site Investigation Report* and May 31, 2005 *Groundwater Monitoring Report – First Quarter 2005.* In those documents,

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Cambria recommended destroying site monitoring wells S-1, SR-1, S-4, S-5, and S-10 because they have been non-detect for all constituents for many quarters and are not needed for gradient assessment. Cambria also recommended locating, destroying, and replacing well S-3 because of historic elevated concentrations in that well. The proposed scope of work is presented below:

Work Tasks

Permits: Appropriate permits for drilling and encroachment will be obtained from ACHSCA and the City of Oakland Public Works Department.

Site Safety Plan: A Site Safety Plan including a traffic control plan will be prepared for fieldwork.

Utility Clearance: Proposed drilling locations will be marked and their locations cleared through Underground Service Alert prior to drilling.

Monitoring Well Destruction: Due to the proximity of numerous underground utilities and the safety issues associated with intrusive work, monitoring wells S-4, S-5, and S-10 will be properly destroyed by pressure grouting through the well casings, using neat Portland Type I/II cement. Further, to minimize the financial impact to the onsite business, Cambria recommends that onsite wells S-1 and SR-1 also be destroyed by pressure grouting. Once the wells are completely grouted, pressure will be applied and maintained for a minimum of 5 minutes. Where possible, the well vaults will be removed, and the surface pavement patched with concrete to match the surrounding grade. If removal of a well vault box is deemed to result in a potential safety hazard due to nearby utilities, then the vault box will remain in place and filled with grout. An appropriately licensed well driller will destroy the wells under the supervision of a Cambria geologist.

Well S-3 Location: Well S-3 has been inaccessible since 1992. Cambria will attempt to locate well S-3 either by hand-digging or by using a small backhoe to dig in the location of well S-3. Once it is located, S-3 will be destroyed by drilling out the well to its original total depth using a drill rig equipped with 10-inch diameter hollow-stem augers, removing the well casing and backfilling the borehole with neat cement. Following well destruction, a replacement well will be installed adjacent to well S-3 as described below. The ground surface will be repaired to its approximate former condition.

Well S-3 Replacement: Groundwater monitoring well S-3R will be installed adjacent to the location of well S-3. An exploratory boring will be drilled using a drill rig equipped with hollow-stem auger drilling equipment. A Cambria geologist will supervise the drilling and describe encountered soil using the Unified Soil Classification System and Munsell Soil Color Charts. Soil samples will be collected continuously for lithologic description. Soil samples will be collected for sediment description, possible chemical analyses, and organic vapor screening with a photo-ionization detector (PID) at a minimum of 5-foot intervals, at areas of obvious petroleum impact, at changes in lithology, and at the soil-water interface. PID readings will be recorded on the boring log.

Soil samples designated for chemical analyses will be retained in steel or brass tubes. The tubes will be covered on both ends with Teflon sheets and plastic end caps. Soil samples will be labeled, entered onto a chain-of-custody record, and placed into a cooler with ice for transport to a State of California certified laboratory for analyses. A standard two week turn-around time will be requested for laboratory results.

Monitoring Well Installation: Well S-3R will be drilled to approximately 14 feet below grade (fbg). The well will be constructed using 4-inch diameter Schedule 40 PVC well casing. The screen interval will be approximately 5 to 14 fbg and will consist of 0.020 inch machine-slotted screen. The sandpack will be placed from the bottom of the well up to 1 foot above the top of the well screen, followed by a 1-foot thick bentonite seal and cement grout to grade. Actual well construction details will be based on field conditions and static water levels during drilling. The well will be secured with a locking cap under a traffic-rated well box.

Well Development and Sampling: The new groundwater monitoring well will be developed prior to sampling by Blaine Tech Services, Inc. (Blaine) of San Jose, California, using surge and purge technique. After well development, Blaine will sample the well during the next scheduled monitoring event, and submit the samples to a State of California certified laboratory for analyses.

Chemical Analyses: Since fuel oxygenates are not constituents of concern at this site, the soil and groundwater samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg), and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260.

Wellhead Survey Activities: Once the monitoring well is installed, a licensed surveyor will survey the wellhead elevation relative to mean sea level and well location relative to latitude and longitude.

Report Preparation: Following the receipt of analytical results from the laboratory, Cambria will prepare a written report which will include field procedures, laboratory results, boring logs, conclusions, and recommendations.

Certification: The scope of work described in this work plan will be performed under the supervision of a California professional geologist or engineer.

SCHEDULE

Cambria will implement these recommendations upon approval from the ACHCSA and receipt of appropriate permits. An investigation report will be submitted approximately 60 days after the results from the soil samples have been received. The groundwater monitoring data will be submitted in accordance with the established groundwater monitoring program for this site.

CLOSING

If you have any questions or comments concerning this submittal, please contact Ana Friel at (707) 268-3812.

Sincerely,

Cambria Environmental Technology, Inc.

Jacquelyn England
Project Geologist

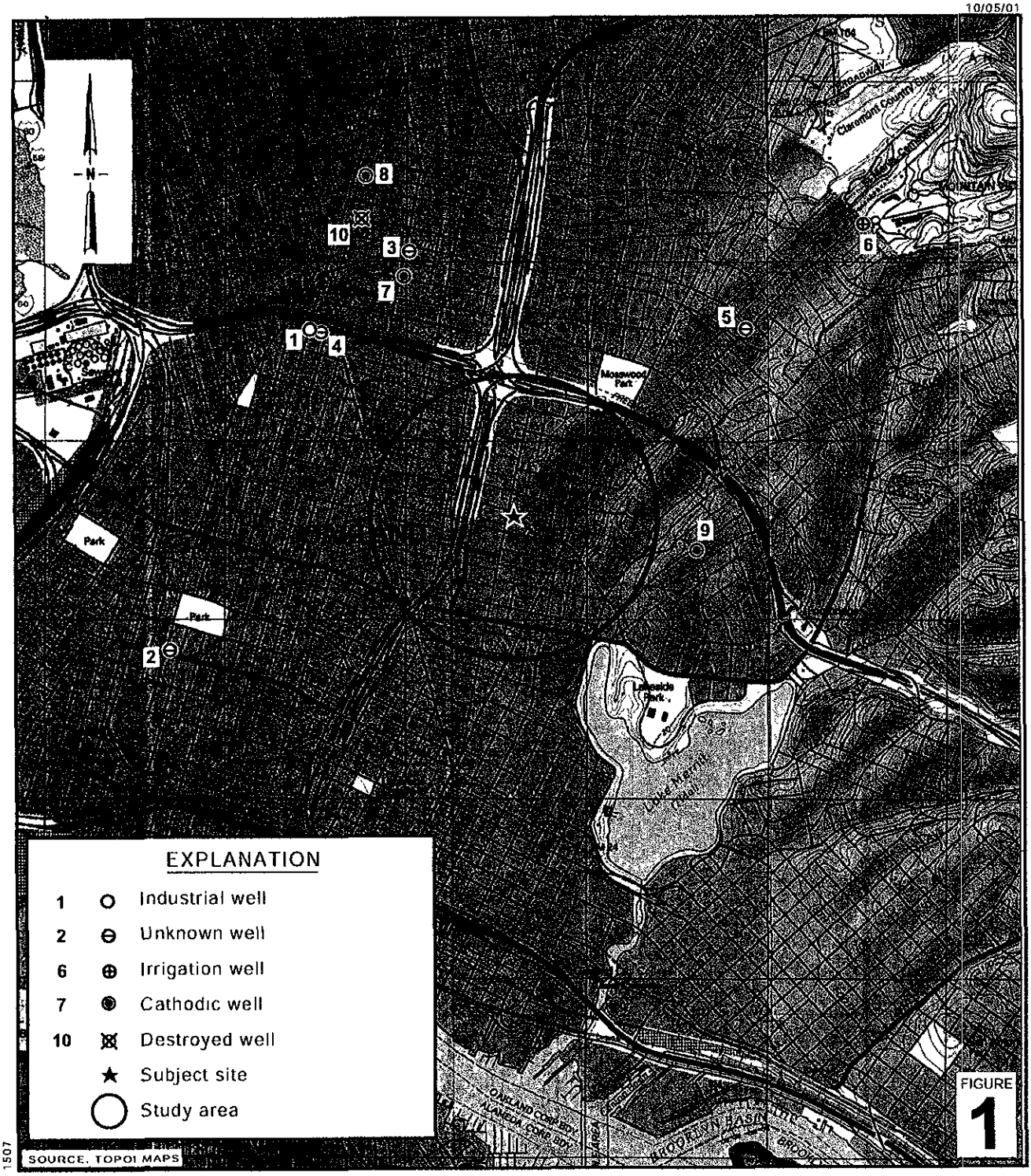
Ana Friel
Senior Project Geologist
PG 6452

Attachments:

Figure 1. Site Vicinity/Well Location Map
Figure 2. Site Plan

cc: Denis Brown, Shell
Harmon Management Corp.

10/05/01



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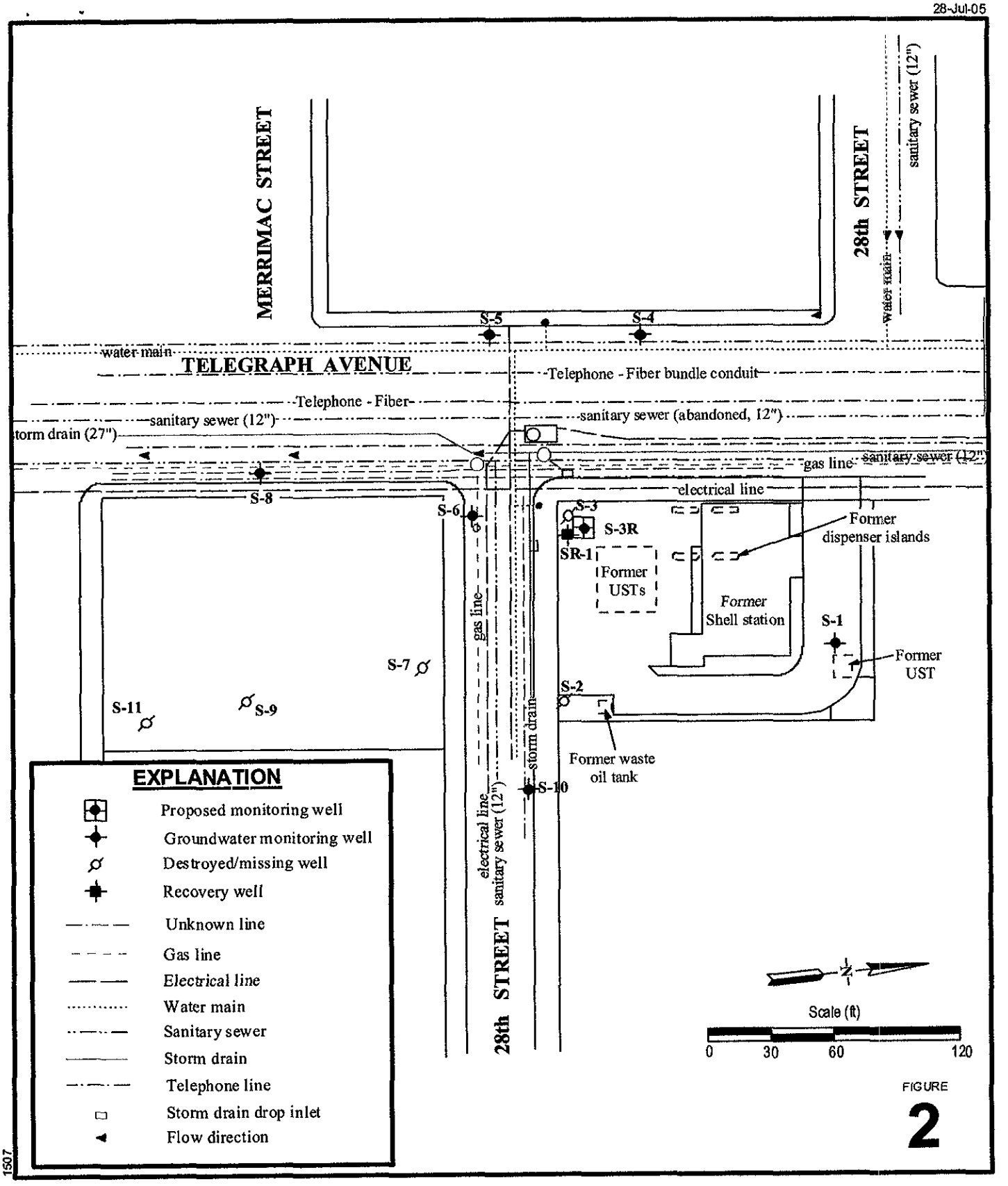
Site Vicinity / Well Location Map

(1/2 Mile Radius)



FIGURE

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Former Shell Service Station
2800 Telegraph Avenue
Oakland, California

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Site Plan/Well Location Map