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GROUNDWATER TECHNOLOGY, INC.
4080-D Pike Lane, Concord, CA 94520
(415) 671-2387

May 16, 1990

Job No. 203 175 3295

Mr. John Randall
Chevron U.S.A. Inc.
2410 Camino Ramon
Bishop Ranch #6
San Ramon, Ca 94583

RE: Proposed Well Point Survey for Chevron Service Station No. 9-0121, Intersection of Lakeshore Drive and MacArthur Boulevard, Oakland, California.

Dear Mr. Randall:

This letter presents the proposed scope of work to conduct an assessment of the groundwater at, and adjacent to, Chevron Service Station No. 9-0121 located at the intersection of Lakeshore Drive and MacArthur Boulevard in Oakland, California. Past work at this site has indicated that a plume of dissolved-gasoline hydrocarbons may extend off-site toward the west. The proposed well-point survey is intended to assess the extent of this dissolved hydrocarbon plume.

The on-site monitoring wells were last sampled on April 10, 1990. At that time, dissolved total-petroleum hydrocarbons (TPH)-as-gasoline in the wells located at the western corner of the site indicated the presence of dissolved hydrocarbons. Since the local groundwater-gradient slopes toward the west, it is likely that this plume extends off site. Groundwater below this site is very shallow, approximately 5-feet below grade. As such, Groundwater Technology, Inc. believes that a well-point survey can be used at this site to map the areal extent of the dissolved -hydrocarbon plume.

Groundwater Technology proposes collecting water samples from approximately 15 well points. The well points will be set in 1-inch-diameter holes which will be dug by forcing a steel drive rod into the subsurface to an appropriate depth below the water table. The rods will then be removed and a clean PVC well point will be inserted into the hole. Each well point will be wrapped with a filter to minimize the inclusion of suspended sediment in the water sample. A water sample will be removed from each well point using a syringe and the sample will be analyzed on-site using the GTEL Environmental Laboratories, Inc. California State-certified mobile laboratory. The water samples will be analyzed for the presence of TPH-as-gasoline and benzene, toluene, ethylbenzene, and xylenes.

The use of an on-site mobile laboratory to assess samples in the field allows the supervising geologist to adjust the locations of subsequent sample points to better define the dissolved-hydrocarbon plume. Figure 1 shows the proposed locations of some sampling points. Based on the findings from the initial on-site points, additional sample points will be selected to further define the dissolved-hydrocarbon plume.

The implementation of this project will require encroachment permits form the City of Oakland (City) to allow sampling in the City right-of-way and the approval of the local Department of Environmental Health. Also, the presence of underground utility lines may prevent the collection of samples from some locations and City traffic controls may cause constraints as to the time that work can be performed in the City streets. For this assessment to be completed effectively, a great deal of careful preparation will be required and even then, unanticipated

complications could prevent the collection of sufficient data. If the assessment is successful, this well-point survey should provide sufficient information to allow for the installation of groundwater monitoring wells to confirm the configuration of the dissolved-hydrocarbon plume.

Groundwater Technology is currently attempting to secure permission to abandon the on-site groundwater monitoring wells. Abandonment of the wells will take place as soon as regulatory approval can be obtained.

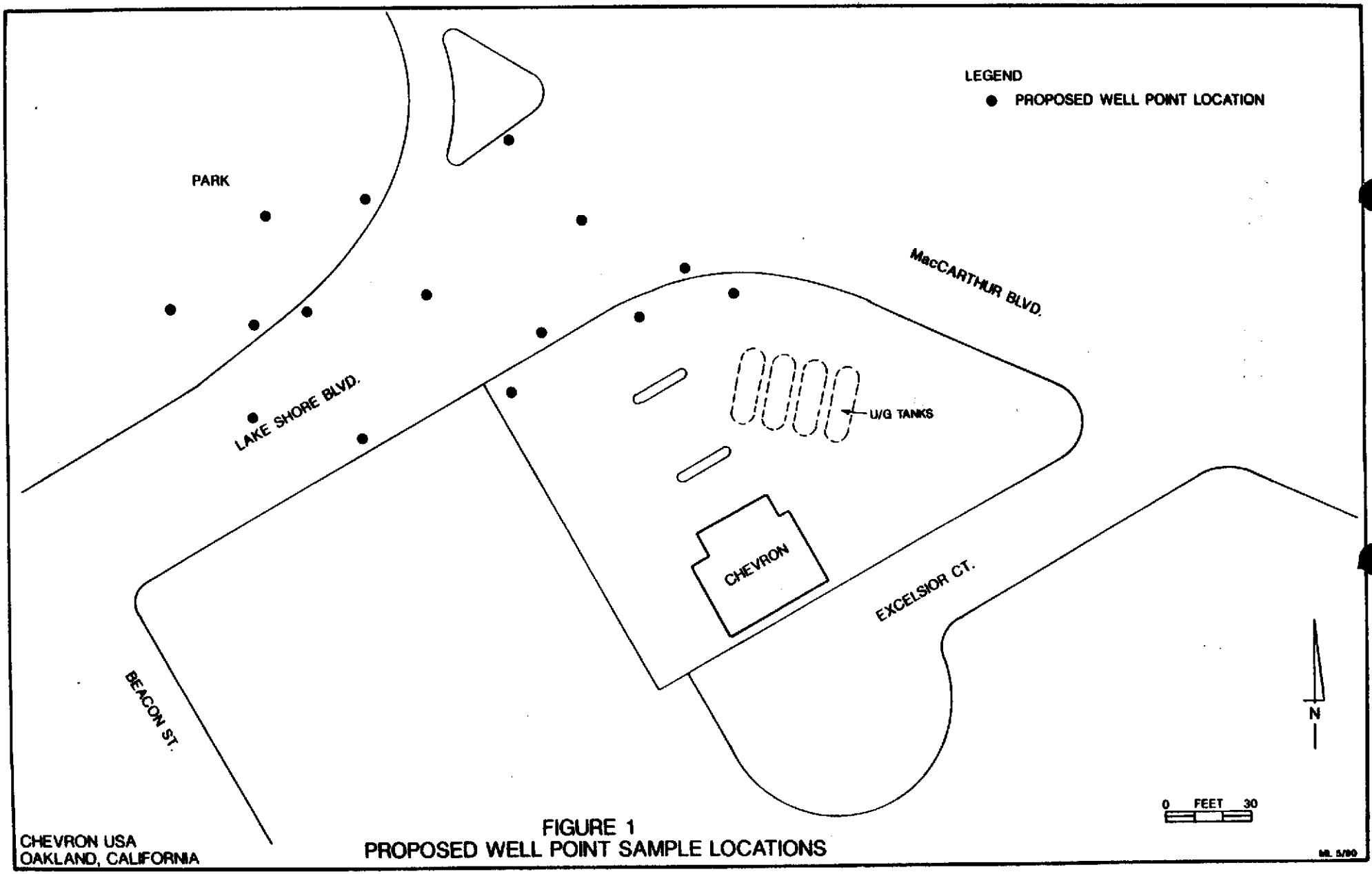
Groundwater Technology, Inc. is pleased to be of continued service on this project. If you require any additional information or wish to discuss the proposed work, please contact us at our Concord Office, (415)671-2387.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Glen L. Mitchell
Assessment Group Manager

Joseph R. Ramage
Petroleum Group Manager

GLM:JRR:lf
L3295C



CHEVRON USA
OAKLAND, CALIFORNIA

FIGURE 1
PROPOSED WELL POINT SAMPLE LOCATIONS

90 JUN 29 PM 1:18

Tank Protect
Mark Zamoratti : State Shingle

① Over excavated area
8 samples : highest TPH 3.3