



Applied GeoSystems

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April 30, 1991
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AGS 69038.06

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Subject: Proposed Underground Tank Replacements at ARCO Station 4494 at 566 Hegenberger Road, Oakland, California.

Mr. Chan:

ARCO Products Company (ARCO) is applying for an Underground Tank Closure permit for three existing underground gasoline-storage tanks at the above-referenced site (see Plate 1, Site Vicinity Map). At the request of ARCO, RESNA/Applied GeoSystems (AGS) will be submitting a work plan for sampling soil in the existing and proposed gasoline tank cavities at the subject site. The purpose of our sampling is to evaluate the presence and concentrations of petroleum hydrocarbons in the soil beneath the site, and to evaluate remedial alternatives for the soil beneath the site and the soil generated from excavating the existing gasoline-storage tanks cavity in the eastern portion of the site. ARCO proposes to backfill the existing gasoline-storage tanks cavity, after its excavation, with soil excavated from the proposed new underground gasoline-storage tanks pit in the southern portion of the site (see Plate 2, Generalized Site Plan).

AGS and others have conducted previous subsurface environmental investigations at the site between December 1988 and April 1991. Results of laboratory analyses of soil samples collected during these investigations indicated waste-oil and highly degraded gasoline had impacted the shallow soil beneath the site in the areas of the former waste-oil-storage tank and existing gasoline-storage tanks. The majority of the waste-oil-impacted soil was removed by Crosby & Overton of Oakland, California in December 1988 and January 1989,

while the majority of the gasoline-impacted soil is found at low levels (less than 100 parts per million) or in a limited area around boring B-2 in the northeastern corner of the site.

Based on the results of previous field investigations and laboratory analyses at the site, AGS concluded that gasoline hydrocarbons were present in the soil near the existing tank cavity. Potential sources of the hydrocarbon product may have resulted from artificial fill materials present beneath the site or from leakage or over-spilling associated with the onsite underground gasoline-storage tanks prior to purchase of the site by ARCO. This conclusion is based on the fact that Gulf Oil Company removed and replaced a 10,000-gallon underground gasoline-storage tank at the site in the late 1970s, and that no soil sampling data was obtained to demonstrate that leakage and/or overfilling of the tank had not occurred. Therefore, we will be submitting a work plan to obtain authorization to excavate and sample soil from the tank cavities during tank replacement operations.

AGS is also currently performing quarterly ground-water sampling and monthly ground-water level monitoring and product removal at the site. Two ground-water monitoring wells (MW-1 and MW-2) were installed by AGS at the site in October 1989, and two additional ground-water monitoring wells (MW-3 and MW-4) were installed by AGS in August 1990. Results of laboratory analyses of water samples collected from wells MW-1, MW-3, and MW-4 have indicated nondetectable levels of total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), total oil and grease (TOG), volatile organic compounds (VOCs), and base-neutral and acid extractables (BNAs). During drilling and sampling of boring B-2/well MW-2, a black, viscous hydrocarbon product was noted in the soil and ground water at a depth of approximately 16 feet. AGS has been removing this black product by bailing during monthly monitoring episodes at the site, and as of March 1991, the product in well MW-2 has been reduced to a product sheen.

AGS has recently been in verbal contact with Ms. Cynthia Chapman and Ms. Katherine Chesick of your office on the status of this site. It is now our understanding from verbal communication with Ms. Chapman that you are the assigned Project Specialist for this site. On March 26, 1991, AGS received a packet of information including an Underground Tank Closure Plan to complete. We understand that ARCO's Environmental and Construction Engineering divisions will complete the necessary forms detailing likely tank and soil removal subcontractors. AGS will be conducting the soil and ground-water sampling program to identify soil to be classified as non-hazardous, potentially hazardous, or hazardous waste so that the approved remedial processes can be performed.

Tank Replacement Letter
ARCO Station 4494, Hegenberger Road, Oakland, CA

April 30, 1991
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We would like to discuss an overview of the proposed site work with you during a site meeting on May 6, 1991. If you have any questions regarding this site, please call us at (408) 264-7723.

Sincerely,
RESNA/Applied GeoSystems



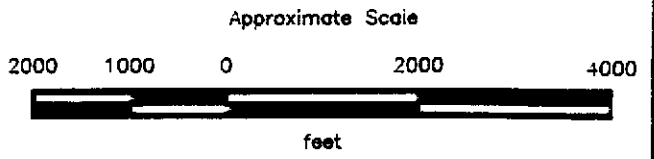
Ken Mateik
Project Geologist

Enclosures: Plate 1, Site Vicinity Map
 Plate 2, Generalized Site Plan

cc: Mr. Chuck Carmel, ARCO Products Company



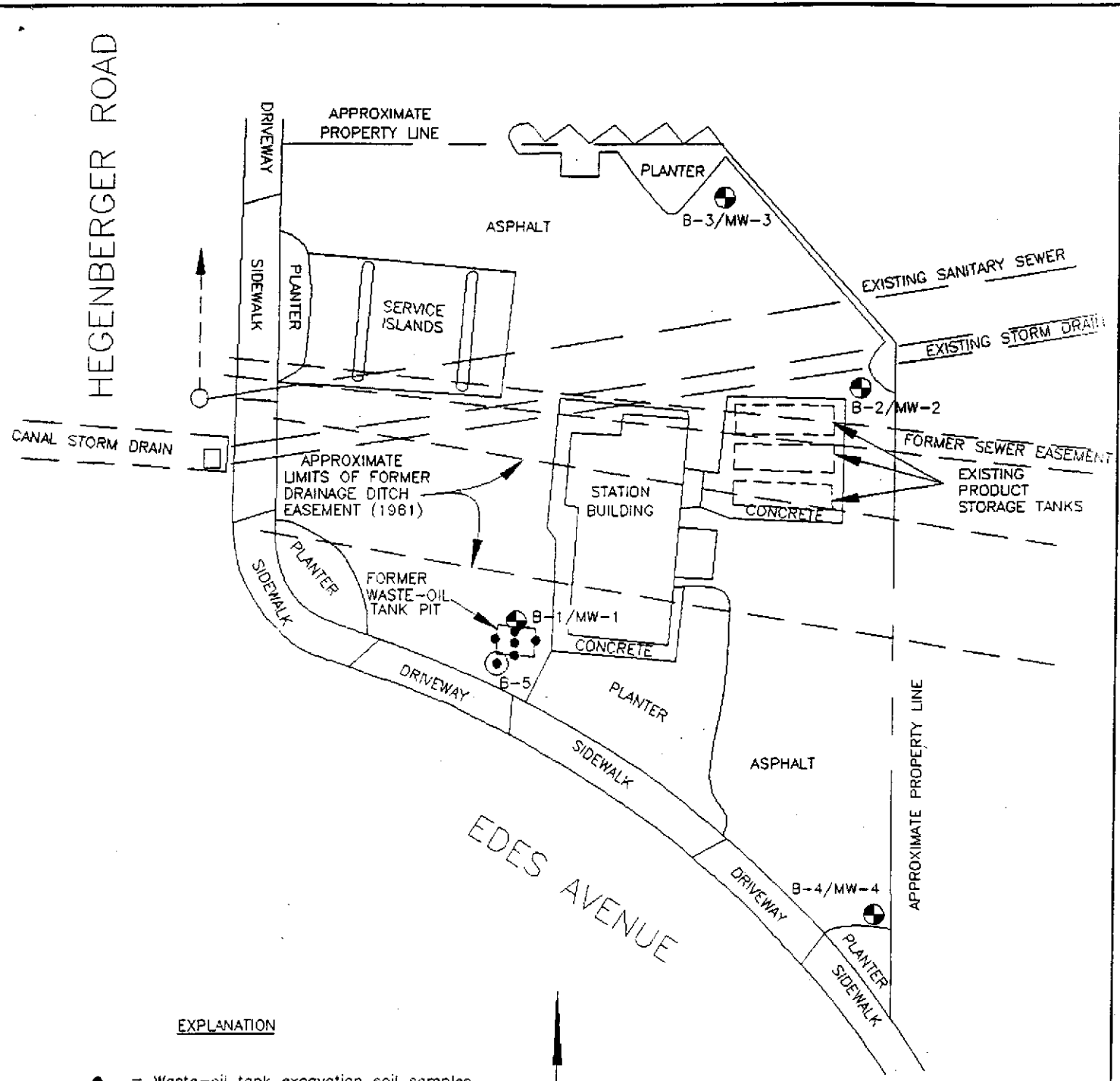
Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Oakland East/San Leandro,
 California
 Photorevised 1980



SITE VICINITY MAP
ARCO Service Station 4494
566 Hegenberger Road
Oakland, California

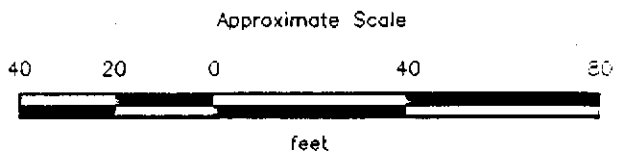
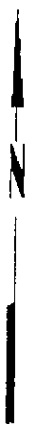
PLATE
1

PROJECT 69038-6



EXPLANATION

- = Waste-oil tank excavation soil samples (Pacific Environmental Group, January 1989)
- B-4/MW-4 ● = Monitoring well (Applied GeoSystems, October 1989 and August 1990)
- B-5 ○ = Soil boring (Applied GeoSystems, August 1990)



Source: Modified from plans supplied by ARCO Products Co. (dated August 12, 1982) and City of Oakland Dept. of Public Works (dated December 19, 1961).



PROJECT **69038-6**

GENERALIZED SITE PLAN
ARCO Service Station 4494
566 Hegenberger Road
Oakland, California

PLATE
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