



Earth Systems Consultants

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May 20, 1999

Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

Attention: Mr. Larry Seto, Senior Hazardous Materials Specialist

Subject: 2415 Mariner Square Drive
Alameda, California
**WORKPLAN FOR GROUNDWATER
SAMPLING AND WELL INSTALLATION**

Dear Mr. Seto:

Earth Systems Consultants Northern California (ESCNC) is providing this workplan which includes the installation of the replacement well for MW-6, one hydropunch near the former underground storage tank (UST) T-1, groundwater sampling, and well destruction at the subject site (Figure 1). This letter also describes the proposed order of events. A summary letter by ESCNC dated April 29, 1999 described the meeting on April 14, 1999 that included the Alameda County Health Care Services Agency, the Regional Water Quality Control Board (RWQCB), ESCNC, and Mr. John Beery. The purpose of the meeting was to briefly outline of the scope of work to be performed at the subject site. The detailed scope of work is presented below.

MW-6 Replacement Well Installation

After permitting through the Alameda County Public Works Agency (ACPWA), the MW-6 replacement well, to be called MW-6a, would be installed on the western side of the proposed building (dry stack facility) and on the north side of the fire wall by a C57 licensed drilling company (Figure 2). An ESCNC geologist will supervise the well installation. Since the construction start date for the dry stack facility is unknown, there are two possible methods for the well installation. If the installation of MW-6a precedes the beginning of construction, then a hollow stem auger drill rig will be used. However, if construction has already begun, the access behind the dry stack building will be too limited for a hollow stem auger drill rig and a direct push rig will be used. Regardless of the well installation method, the total depth of the well will be approximately 15 feet.

Well MW-6a will be included in the groundwater sampling schedule described below.

Hydropunch

In addition to installing well MW-6a, the drill rig would be used to drill and install a temporary hydropunch in the area of former UST T-1 (Figure 2). The hydropunch will be used to collect a groundwater sample which will be submitted to a state-certified laboratory under chain of custody protocol. The sample will be analyzed for total petroleum hydrocarbons as gasoline, diesel, and

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motor oil (TPHg, TPHd, and TPHmo, respectively) using EPA methods 3510/3630/8015; and benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tert-butyl ether (MTBE) using EPA method 8020.

If analytical results warrant, a permanent groundwater monitoring well may be installed and included in the sampling schedule described below.

Sampling Groundwater Monitoring Wells

During the April 14, 1999 meeting, the proposed groundwater sampling schedule was discussed. ESCNC proposes to measure depth to water, purge and sample all groundwater monitoring wells currently at the subject site (MW-1 through MW-5, MW-6a, when installed, and MW-7 through MW-9) during the second quarter 1999. The monitoring well purging and sampling protocol will be the same as described in the Quarterly Monitoring Report, Second Quarter 1998 dated June 12, 1998 by Hydro Environmental Technologies, Inc.

The samples will be submitted to a state-certified laboratory and analyzed for the following:

- TPHg, TPHd, and TPHmo using EPA methods 3510/3630/8015.
- BTEX and MTBE using EPA method 8020
- polynuclear aromatics (PNAs) using EPA method 8310
- vinyl chloride using EPA method 8010

The sample suite is derived from the previous investigations and requirements as stated in ACHCSA letters.

Wells MW-2, MW-3, MW-5, and MW-6a will continue to be sampled on a quarterly basis during third and fourth quarters 1999 and first quarter 2000. However, if the results from the second quarter 1999 sampling indicate analytes with nondetectable levels for the fourth consecutive sampling event, analysis for the nondetectable analytes will be discontinued.

Well Destruction

Since wells MW-1, MW-4, and MW-7 through MW-9 are not in the main area of concern for the RWQCB, they will be destroyed after the second quarter 1999 sampling. The well destruction will be permitted through ACPWA, and the wells will be destroyed by a C57 licensed drilling company by pressure grouting the casing in place.

Summary Report

ESCNC will present the results of this field work in a comprehensive second quarter 1999 report. The report will describe the techniques used, locations of new well(s) and hydropunch sampling point, analytical results, and conclusions.

Quarterly Report

ESCNC will prepare quarterly groundwater monitoring and sampling reports which will be submitted to the ACHCSA and RWQCB.

After the first quarter 2000 analytical results, the groundwater sampling schedule may be reevaluated and changed to semi-annual or discontinued. If warranted, a request for case closure will be submitted.

If you have any questions regarding this workplan, please call the undersigned at your earliest convenience.

Very truly yours,

EARTH SYSTEMS CONSULTANTS
Northern California

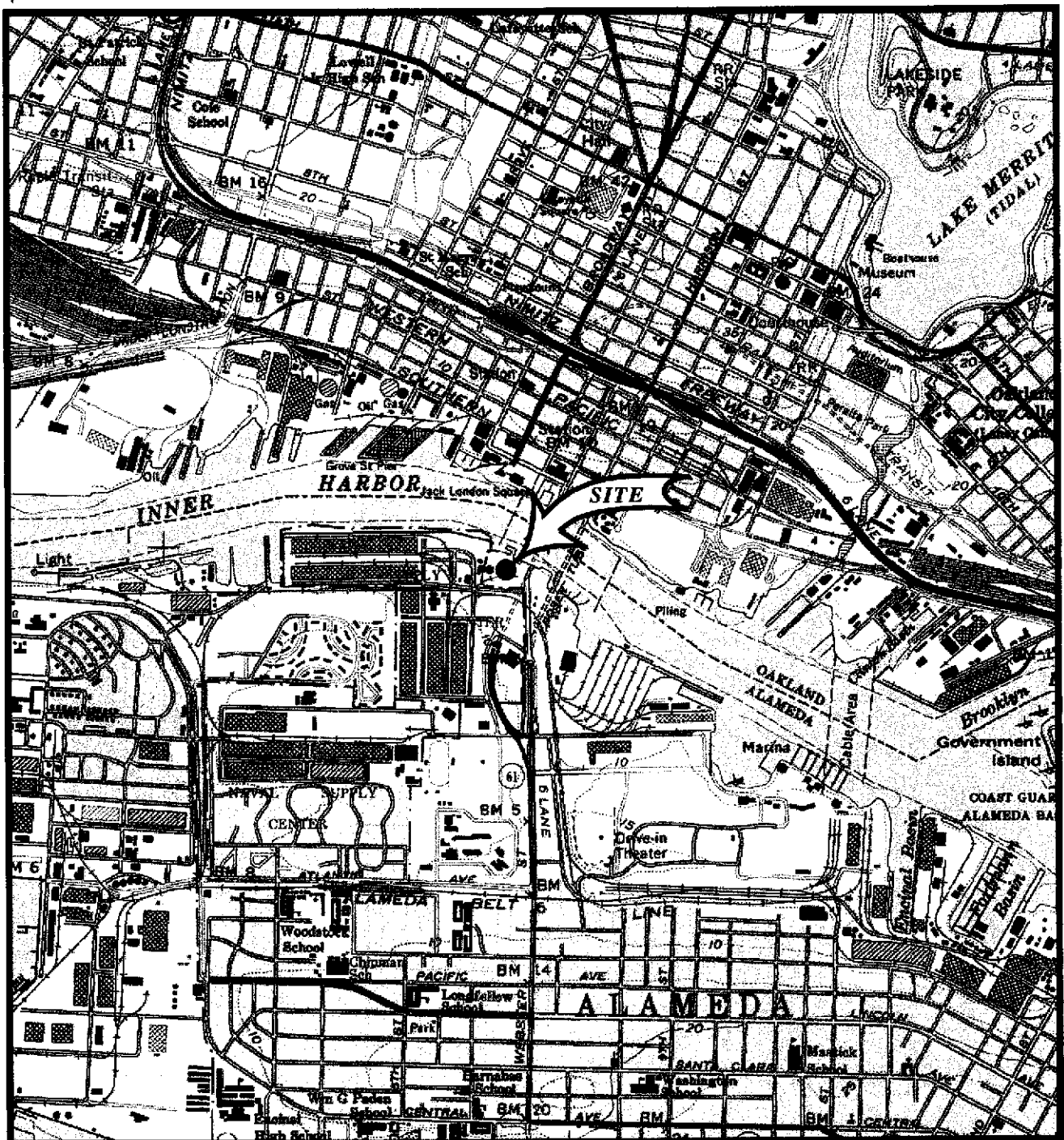

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Distribution: 1 to addressee
1 to Mr. John Beery

TMA
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17Y



Approximate Scale 1: 24,000



Base: U.S.G.S. 7.5 minute Oakland West Quadrangle (1980)
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2415 Mariner Square Drive
Alameda, California

SITE LOCATION

Figure 1

