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ENGINEERING-SCIENCE, INC.
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ALAMEDA, CALIFORNIA

TO: Ms. Juliet Shin

LOCATION: ACHCSA - Division of Haz. Materials

RAPIDFAX NO: 510 569 4757

COPIES TO:

FROM: Bruce Rucker

DATE: 3/29/94

TOTAL NUMBER OF PAGES 5 (INCLUDING THIS COVER LETTER)

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29 March 1994
Ref:723090 (NC367)

Alameda County Health Care Services Agency
Department of Environmental Health
Division of Hazardous Materials
80 Swan Way, Room 200
Oakland, California 94621
Attention: Ms. Juliet Shin

Subject: Creek Surface Water Sampling at Redwood Regional Park, Oakland, California

Dear Ms. Shin:

INTRODUCTION

This letter summarizes the methodologies, protocols and locations of surface water sampling conducted 28 March 1994 by Engineering-Science, Inc. (ES) at Redwood Creek in Redwood Regional Park, Oakland, California. That task was requested by Alameda County Health Care Services Agency (ACHCSA) in your letter of 23 March 1994. The activities proposed herein follow previous site characterization and remediation activities associated with the former underground fuel storage tanks (UFSTs) conducted by ES at the project site, that were summarized in the ES reports dated 16 December 1993 and 2 March 1994.

The 23 March 1994 ACHCSA letter requested that a workplan be prepared for creek water sampling. In accordance with ACHCSA guidance (28 March 1994 telephone conversation between Ms. Juliet Shin of ACHCSA and Bruce Rucker of ES), a workplan for creek surface water sampling will not be required. However, a location map showing proposed creek water sampling locations must be submitted to ACHCSA. ES obtained from ACHCSA verbal approval on proposed sampling locations. As a cost-and time-savings measure, ES collected the creek surface water samples on 28 March 1994, and submitted them to the laboratory to be held pending ES notification to proceed with analysis.

SCOPE OF WORK

Surface Water Sampling

On 28 March 1994 ES collected for laboratory analysis two "grab" surface water samples from Redwood Creek at locations upstream and downstream of the area of discolored soil in the creek bank (Figure 1). The upstream sampling location was located such that surface water in the creek at that location should not be impacted by the former leaking tanks, based on the inferred direction of groundwater flow at the site, yet was adjacent to and downstream of vehicular parking and traffic areas which

might contribute to surface runoff potentially containing petroleum compounds. The downstream sampling location (the same location as sampled on 9 February 1994) was approximately three feet downstream of the area of discolored soil in the creek bank. Surface water sampling and sample management protocols were the same as those utilized by ES during the 9 February 1994 creek water sampling event.

Laboratory Analyses

The "grab" surface water samples will be analyzed for contaminants of concern identified in previous site characterization/remediation activities, including:

- TPH as gasoline (TPH-G), TPH as diesel (TPH-D) and TPH as kerosene (TPH-K) by the State of California Department of Toxic Substances Control (DTSC)/Leaking Underground Fuel Tank (LUFT) Manual method (equivalent to modified EPA method 8015)
- Aromatic hydrocarbons (including benzene, toluene, ethylbenzene and total xylenes [BTEX]) by EPA Method 602

Data Reporting

ES will summarize in a brief letter report the results of the creek water sampling and analysis event. The letter report will include the following elements:

- Brief summary of historical site investigations
- Summary of site hydrogeology
- Summary of soil and "grab" groundwater and surface water analytical results pertinent to potential contamination of Redwood Creek
- Certified analytical laboratory report and chain-of-custody record for the currently proposed "grab" surface water samples
- Evaluation of proposed event analytical results in the context of applicable regulatory agency "action levels" or guidelines
- Recommendations for further characterization and/or remediation, as warranted

We understand from you that following receipt of the letter report, ACHCSA will arrange a meeting between ACHCSA, EBRPD, the California Regional Water Quality Control Board - San Francisco Bay Region (RWQCB), California Department of Fish and Game and ES. The objective of that meeting will be to discuss potential remedial actions that may be required to mitigate impacts to the creek associated with the detected contamination.

ENGINEERING-SCIENCE, INC.

We trust that this submittal meets your needs. Please contact me at the ES Alameda office (510-769-0100) this morning after you have reviewed and approved the surface water sampling locations, so that we may proceed with laboratory analysis of the previously collected surface water samples. Please call if you have questions or require further information.

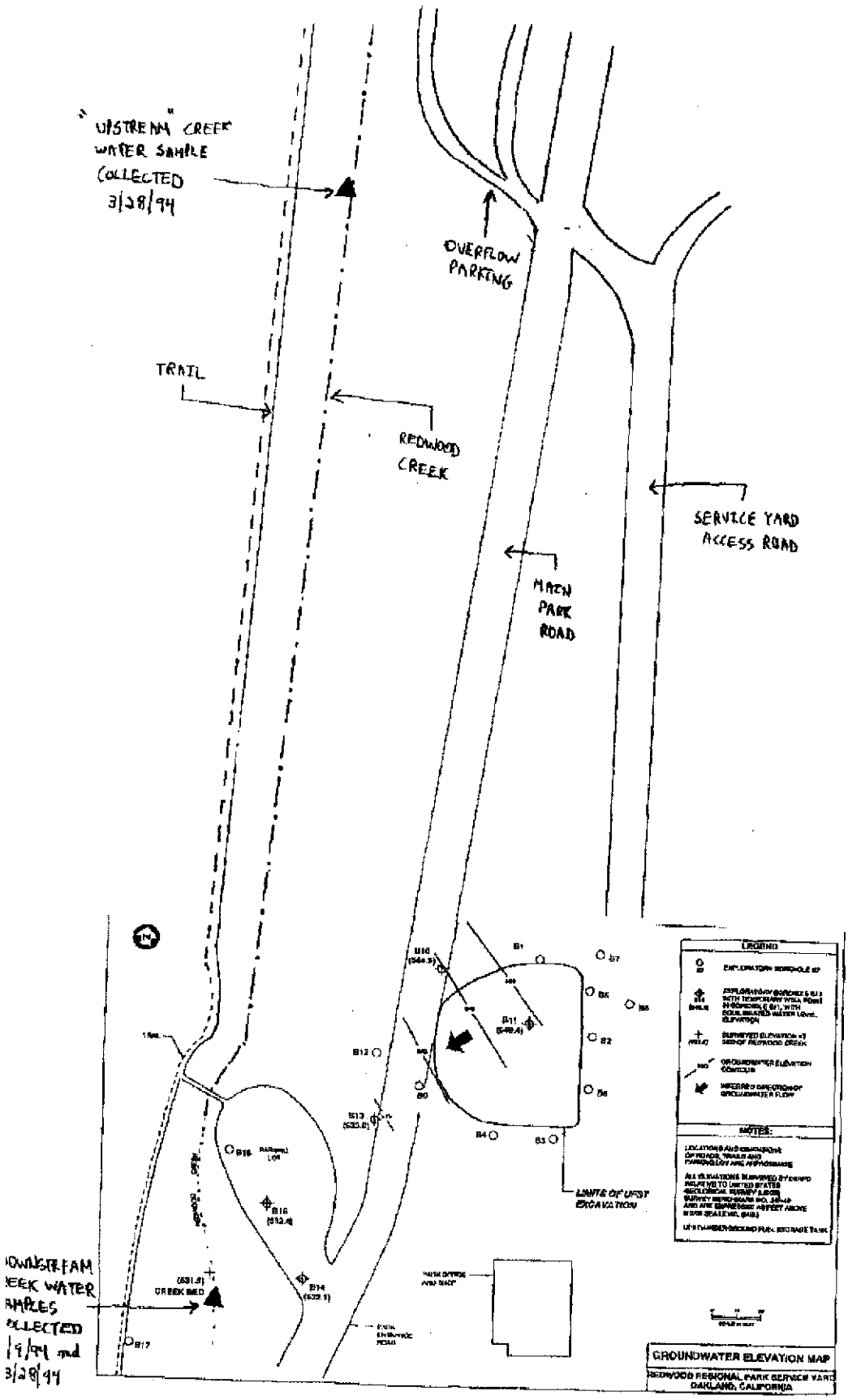
Very truly yours,

ENGINEERING-SCIENCE, INC.

Bruce M. Rucker

Bruce M. Rucker
Project Manager

cc: W. Gee, EBRPD
F. Stanin, ES


"UPSTREAM" CREEK WATER SAMPLE COLLECTED 3/28/94
OVERFLOW PARKING
TRAIL
REDWOOD CREEK
SERVICE YARD ACCESS ROAD
MAIN PARK ROAD
LIMITS OF UPST EXCAVATION
DOWNSTREAM CREEK WATER SAMPLES COLLECTED 1/9/94 and 3/28/94
GROUNDWATER ELEVATION MAP
REDWOOD REGIONAL PARK SERVICE YARD
OAKLAND, CALIFORNIA