



KLEINFELDER

An employee owned company

May 30, 1996

File No. 10-3003-37/003

ENVIRONMENTAL
PROTECTION
95 JUN -5 PM 2:07

Ms. Eva Chu

Alameda County Environmental Health Department

1131 Harbor Bay Parkway, Suite 250

Alameda, California 94502-6577

**SUBJECT: Work Plan for Further Environmental Investigation at the
Dublin Boulevard Property, Dublin, California**

Dear Ms. Chu:

Kleinfelder, Inc. (Kleinfelder) is pleased to present this work plan to conduct further environmental investigation work at the property located at the southwest corner at the intersection of Dublin Boulevard and Scarlett Drive in Dublin, California (see Site Vicinity Map, Plate 1). This work plan was prepared in response to your request on May 22, 1996.

BACKGROUND

Kleinfelder recently completed a Phase I Environmental Site Assessment and soil and groundwater investigations at the site. The results of these assessments were presented in our reports titled "Phase I Environmental Site Assessment Report, Dublin Boulevard Property, Dublin, California", dated March 29, 1996, and "Environmental Investigation Report, Dublin Boulevard Property, Dublin, California", dated May 8, 1996.

Our site history review indicated that the site has always been undeveloped. The site was purchased by J Patrick Land Company from U-Haul approximately six years ago. Previous site uses have been limited to construction of a building pad at the center of the site, (U-Haul never completed construction of the building), and use as a storage lot for plants by a landscaping company that rented the site from J Patrick Land Company.

During Kleinfelder's initial investigation on March 5, 1996, two soil samples (one of fill material and one of native soil) were collected from the site. In addition, three groundwater samples were collected using the Hydropunch™ system. None of the suspected chemicals of concern were detected in the soil samples. Hydrocarbons were present in all of the groundwater samples and chlorinated solvents were detected in groundwater samples collected from the boring (B-4) located near the southwest corner of the site (the down-gradient direction with respect to expected regional groundwater flow direction). The chlorinated solvents were above the maximum contaminant level (MCLs).

After review of these results, Ms. Chu of the ACDEH requested that soil and groundwater samples be collected for analysis from borings located at 10 feet north and 10 feet east of B-4 (designated as B-5 and B-6 in this proposal). The purpose of this sampling and analysis was to establish whether chlorinated solvents are present in deeper soils and the lower portion of the first aquifer in the vicinity of B-4.

Borings B-5 and B-6 were advanced near the southwest corner of the site on May 1, 1996. Soil samples were collected for chemical analysis at depths of 5 feet and 11.5 feet below ground surface (bgs) from boring B-5 and at depths of 6.5 feet and 13 feet bgs from boring B-6. In addition, groundwater samples were collected from each boring from the lower portion of the water bearing material at depths of approximately 19 to 20 feet.

No halogenated VOCs were present in the four soil samples analyzed at concentrations above the laboratory reporting limits. As noted in Table 1 below, chlorinated solvents CIS 1,2-Dichloroethene (DCE), Trichloroethene (TCE), and Tetrachloroethene (PCE) were detected in the groundwater samples collected from borings B-5 and B-6. For reference purposes, the analytical results for the groundwater samples collected from borings B-1, B-2, and B-4 during the previous investigation also are presented in the table. Please note we were unable to obtain a groundwater sample from boring B-3.

TABLE 1 Summary of Groundwater Analytical Results Dublin Boulevard Property Dublin, California								
Boring Number	Date Collected	DCE ¹ µg/L ⁷	TCE ² µg/L	PCE ³ µg/L	TDS ⁴ mg/L ⁸	Toluene ug/L	TPH-d ⁵ ug/L	TRPH ⁶ mg/L
B-1	3/5/96	<0.5	<0.5	<0.5	NA	0.63	83	<1.0
B-2	3/5/96	<0.5	<0.5	<0.5	NA	<0.5	170	3.2
B-4	3/5/96	2.6	13	27	NA	<0.5	1,400	<1.0
B-5	5/1/96	4.4	11	66	1,900	NA	NA	NA
B-6	5/1/96	4.1	14	53	1,700	NA	NA	NA
MCL		6	5	5	NE	1,000	NE	NE

1. DCE = Cis 1,2-Dichloroethene

2. TCE = Trichloroethene

3. PCE = Tetrachloroethene

4. TDS = Total Dissolved Solids

5. TPH-d = Total Petroleum Hydrocarbons quantified as diesel

6. TRPH = Total Recoverable Petroleum Hydrocarbons

7. µg/L = Micrograms per liter, approximately equivalent to parts per billion

8. mg/L = Milligrams per liter, approximately equivalent to parts per million

NA = Not Analyzed for noted compound

NE = Not Established

Based on the analytical results reported to date, Ms. Chu has requested that additional investigative work be conducted at the site to help evaluate the possible source area and the extent of the chlorinated solvent and hydrocarbon plume beneath the site vicinity.

PROPOSED SCOPE OF SERVICES

Kleinfelder proposes to install five on-site borings (denoted B-7 through B-11) and three off-site borings on the properties belonging to U-Haul (to the south) and El Monte RV (to the west). These off-site borings are denoted B-12 through B-14. Boring B-14 is proposed in the area where U-Haul had a vehicle service area, a recreational vehicle sanitary waste station, and a vehicle wash area with a sand grease trap.

TASK 1.0 - ON-SITE INVESTIGATION

FIELD INVESTIGATION

Borings B-7 through B-11 are proposed to be advanced on site at the locations shown on the Site Plan, Plate 2. The borings will be advanced to depths of approximately 20 feet using a Cone Penetrometer Test (CPT) rig equipped with 2-inch probes. Prior to drilling, the concrete pad at the location of boring B-10 will be cored. The boring will be backfilled to the surface with cement.

Soil samples will be collected only from borings B-7 and B-8. These samples will be obtained from the 3.5 to 5.0 foot depth interval and held for chemical analysis pending Kleinfelder's receipt and review of groundwater analytical results from these borings. A modified California split spoon sampler will be used to obtain the soil samples. The soil samples will be capped with teflon and plastic end caps, labeled and placed into an ice cooled chest and transported under chain-of-custody to a laboratory for storage.

Based on our previous site investigation and on data collected by Levine Fricke during their investigation across the street from the subject site, we anticipate that the bottom of the aquifer is at 20 feet bgs. Kleinfelder therefore proposes to collect a groundwater sample at approximately 18 to 20 feet bgs at each boring location. The groundwater samples will be collected using the Hydropunch™ sampling system, which allows for the collection of water samples from a specific interval. The Hydropunch™ system consists of a steel casing with a tip that is driven several feet into the formation. Inside the probe is a Teflon tube with perforations. After being driven into the water table, the steel casing is retracted, exposing the Teflon tube. Groundwater samples are then collected with a bailer through the augers and Teflon tube.

The groundwater samples will be retrieved using a dedicated disposable polyethelene bailer and decanted into sample bottles provided by the laboratory. These bottles will be appropriately labeled and placed into an ice cooled chest for transport under chain-of-custody to a laboratory certified by the State of California to perform the requested analyses.

Prior to drilling the borings, a permit will be obtained from the Alameda County Flood Control and Water Conservation District- Zone 7. Kleinfelder will contact Underground Services Alert to arrange for utility marking within pertinent public rights of way and utility easements. A site specific health and safety plan will be prepared and kept on-site during drilling operations. Upon completion, the borings will be backfilled with cement grout in accordance with the requirements of the permit.

The soil cuttings from the borings will be placed on visqueen and left on-site for future disposal, pending receipt of analytical results. The CPT rig generates minimal soil cuttings. Kleinfelder can assist in evaluating disposal options upon receipt of analytical results. This evaluation is not included in the proposed scope of services at this time. The sampling equipment will be decontaminated between boreholes and sampling events. Steam cleaning water will be stored in DOT approved 55-gallon drums on-site. Disposal of steam cleaning water is the responsibility of J Patrick Land Company.

CHEMICAL ANALYSES

The five groundwater samples will be analyzed for halogenated volatile organic compounds (VOCs) using Environmental Protection Agency (EPA) Test Method 8010 and Total Petroleum Hydrocarbons as diesel (TPH-d) using Modified EPA Test Method 8015. In addition, groundwater samples from borings B-7 and B-8 will be analyzed for the aromatic volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA Test Method 8020.

REPORT OF FINDINGS

Information obtained during this investigation will be presented in a report and will include a description of investigation activities and methods used during the investigation, results of the investigation including copies of all analytical data and chain-of-custody forms, and recommendations for additional activities, if warranted. A copy of our report will be forwarded to the ACDEH, following your review. Kleinfelder will meet with representatives of the ACDEH to discuss our report and obtain site closure.

TASK 2.0 - OFF-SITE INVESTIGATION

FIELD INVESTIGATION

Three off-site borings are proposed to be advanced concurrently with the on-site borings if permission to perform this work can be obtained from U-Haul and El Monte RV. If permission cannot be obtained to drill these off-site borings, then these borings will be advanced on the project site in close proximity to the proposed off-site locations. As noted above, borings B-12 and B-13 will be located adjacent to the site's western property line and boring B-14 will be located in the area where U-Haul had a vehicle service area, a recreational vehicle sanitary waste station, and a vehicle wash area with a sand grease trap. These borings will be advanced to a depth of approximately 20 feet.

A soil sample will be collected only from boring B-14. This sample will be obtained from the 3.5 to 5.0 foot depth interval and held for chemical analysis pending Kleinfelder's receipt and review of groundwater analytical results. The sample will be collected and handled as noted in Task 1.0 above.

Groundwater samples will be obtained from each boring and handled as noted in Task 1.0 above.

CHEMICAL ANALYSES

The three groundwater samples will be analyzed for halogenated volatile organic compounds using EPA Test Method 8010 and TPH-d using Modified EPA Test Method 8015. In addition, the groundwater samples from borings B-14 will be analyzed for BTEX using EPA Test Method 8020.

REPORT OF FINDINGS

Information obtained from the off-site borings will be presented in the report of findings prepared for the site.

TASK 3.0 -CHEMICAL ANALYSES OF SOIL SAMPLES

The three soil samples collected from borings B-7, B-8 and B-14 will be analyzed if contaminants are detected in the groundwater samples from these borings at concentrations greater than previously present on the site. The samples will be analyzed for halogenated volatile organic compounds using EPA Test Method 8010, for TPH-d using Modified EPA Test Method 8015, and for BTEX using EPA Test Method 8020.

SCHEDULE

Kleinfelder has scheduled field work for Tuesday, June 4, 1996. The analytical results for the samples will be available on June 10 or 11, 1996 and the written report should be available on or before June 14, 1996.

Please contact Lita Freeman at (510) 484-1700 if you have questions regarding this work plan.

Sincerely,

KLEINFELDER, INC.



Lita D. Freeman, R.E.A.

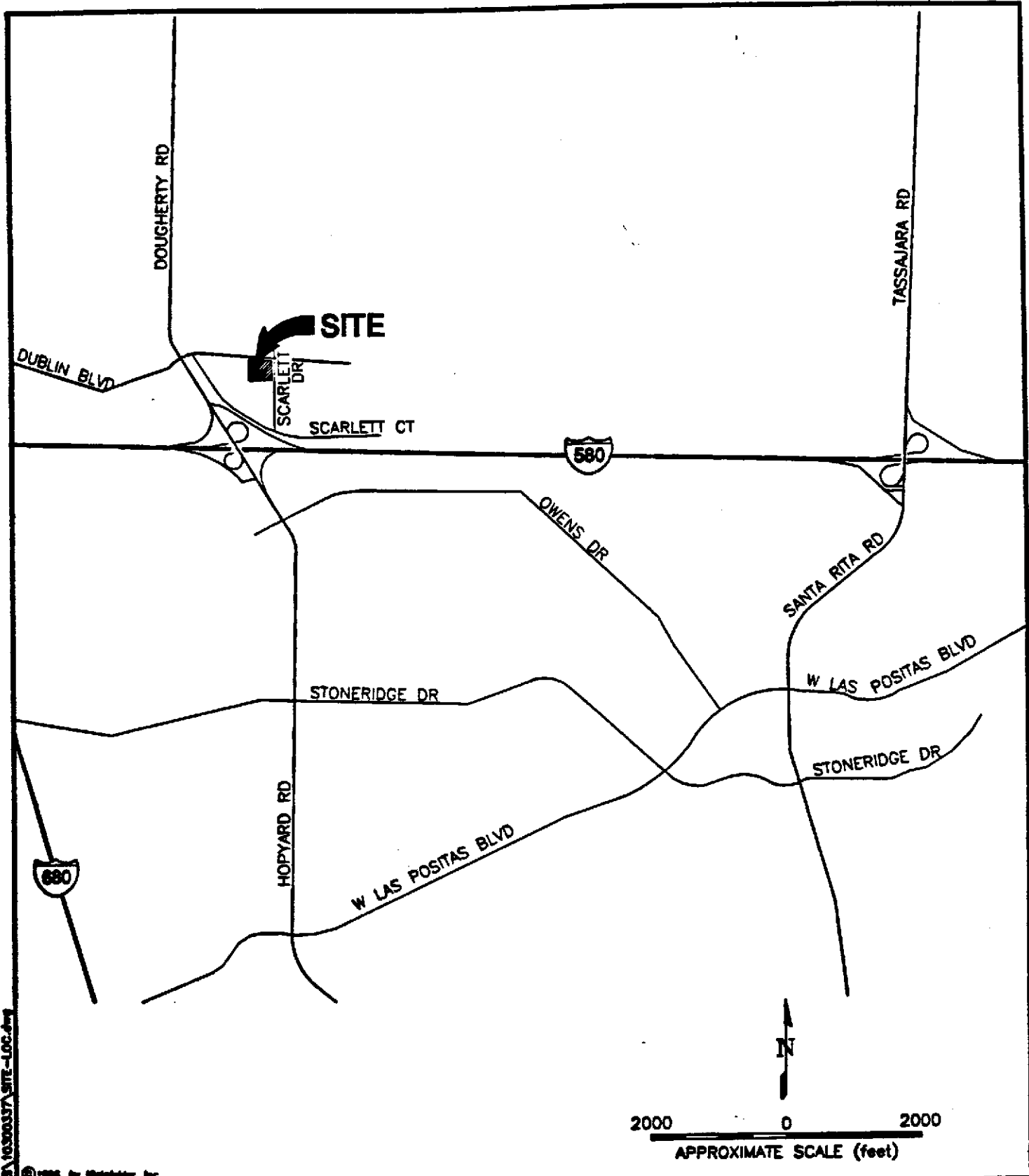
Project Manager



Christina J. Kennedy, R.G.

Senior Client Manager

LDF:CJK:ks

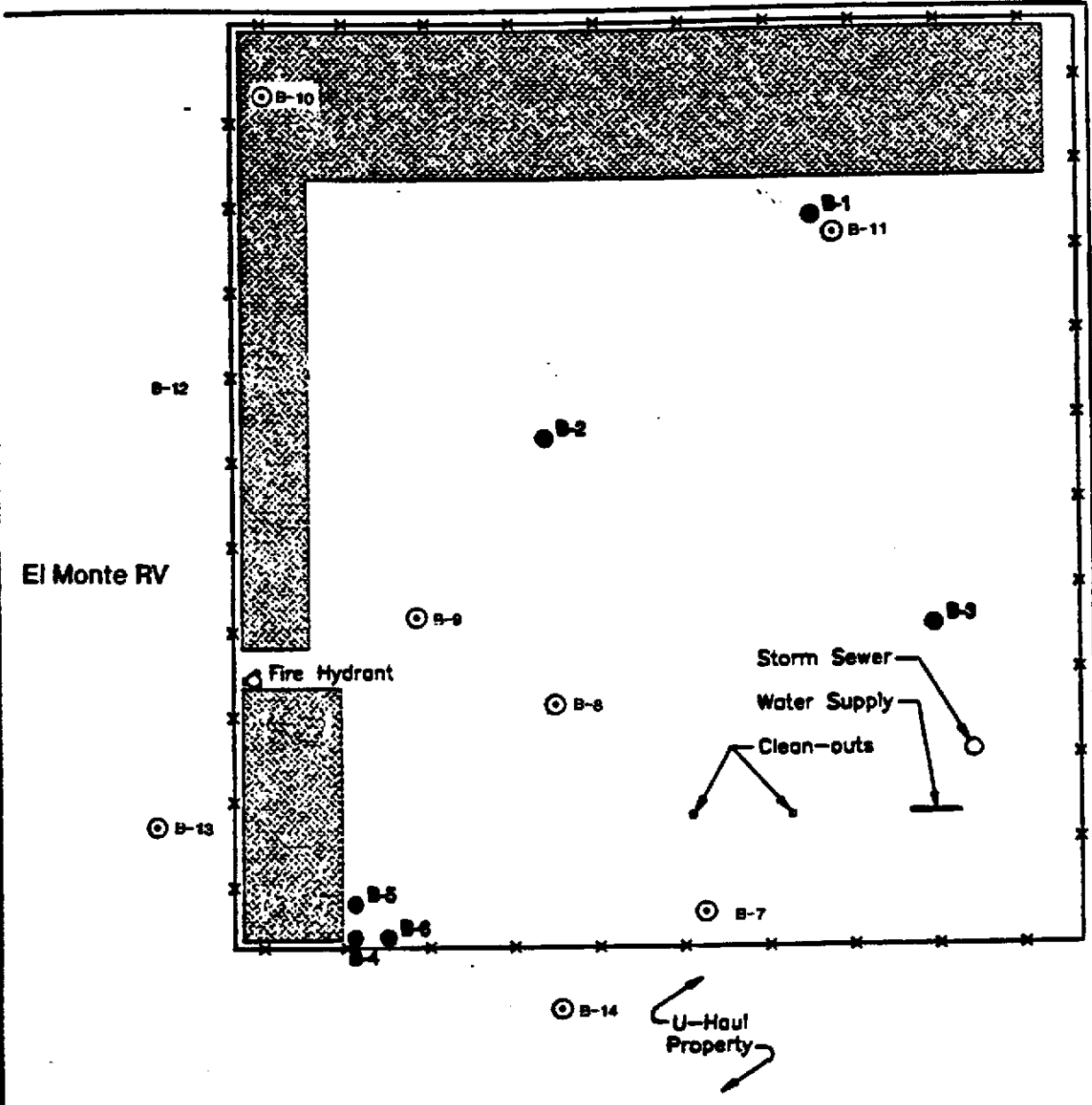


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		SITE LOCATION MAP		PLATE
		DUBLIN BOULEVARD PROPERTY DUBLIN, CALIFORNIA		1
DRAFTED BY: L. Sue	DATE: 5-3-96	PROJECT NO. 10-300337-002		
CHECKED BY: L. Freeman	DATE: 5-4-96			

DUBLIN BOULEVARD



SCARLETT DRIVE

Drainage Channel



50 0 50
APPROXIMATE SCALE (feet)

⊙ PROPOSED BORING LOCATION

LEGEND



FENCE



CONCRETE PAD



BORING LOCATION



INFERRED GROUNDWATER FLOW DIRECTION

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SITE PLAN WITH HYDROPUNCH SAMPLE LOCATIONS

PLATE

2

DRAFTED BY: L. Sue DATE: 5-3-96
CHECKED BY: L. Freeman DATE: 5-4-96

DUBLIN BOULEVARD PROPERTY
DUBLIN, CALIFORNIA

PROJECT NO. 10-300337-002

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