QUARTERLY REPORT
(NOVEMBER 1992 - JANUARY 1993)
INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

January 8, 1993

January 8, 1992
File: 10-1682-03/38

Mr. Dennis Hunt
District Manager
Industrial Asphalt
P.O. Box 636
Pleasanton, CA 94566

SUBJECT: Quarterly Report (November 1992 - January 1993) Industrial Asphalt, Pleasanton, California

Dear Mr. Hunt:

Kleinfelder, Inc., is pleased to submit this quarterly report for the third quarter of 1992 (November 1992 - January 1993) for the Industrial Asphalt site in Pleasanton, California (Plate 1). Quarterly progress reports were requested by the Alameda County Department of Health Services (ACDHS) in their letter to you dated November 13, 1989.

INTRODUCTION

Thirteen monitoring wells and eleven extraction wells are present onsite. Previous monitoring well MW-13, was converted to an extraction well and designated EW-11. Data collected from the monitoring wells have been used to evaluate the nature and extent of the plume and the ground water gradient beneath the site. The locations of the monitoring and extraction wells are shown on Plate 2. All monitoring wells are monitored for depth to water and product thickness on a quarterly basis in accordance with recommendations in the Remedial Investigation Report dated December 28, 1990. Collected ground water samples have been analyzed for the target compounds including total petroleum hydrocarbons (TPH) as diesel and waste oil and polychlorinated biphenyls (PCBs). Additionally, as requested by the ACDHS in their letter to your firm dated February 21, 1991, water samples were also analyzed for Oil and Grease (Standard Method 5520 C & F).

Water samples were collected on November 19 and 20, 1992, from onsite wells MW-6, MW-7, MW-8, MW-10, MW-14, MW-15, and MW-16. Monitoring wells MW-1, MW-2, MW-3, and MW-5 were dry during this sampling round so no water samples could be recovered. Monitoring well MW-4 and MW-9 was not accessible on the sampling days, and therefore, not sampled. As noted above monitoring well MW-13 was not sampled as this well has been converted to a ground water extraction well. In addition to the onsite monitoring wells, an offsite water supply well located on the Jamieson property was sampled via a hose tap. Refer to Plate 2 for the location of all wells and the offsite well.

WATER LEVEL MONITORING DATA

Ground water surface elevation data were collected from sampled wells on November 18, 1992, prior to their sampling. These measurements are provided in Table 1. Generally, the ground water surface elevation at the site has fallen an average of 3.18 feet since the last measurement on August 19, 1992, and an average of 17.55 feet since March 3, 1992.

Based on the information collected during this round of sampling, a ground water gradient map was constructed (Plate 3). This map indicates a general flow direction towards the northeast. This flow direction is as noted in previous sampling rounds.

Water level elevations beneath the site vary from less than 273 to approximately 288 feet (MW-5 and MW-6, respectively). Water levels in the area of MW-5 are again the lowest on the site, which conforms with historical observations. The overall gradient is approximately the same as that observed in August 1992. The gradients vary from at least 0.044 feet per foot towards the northeastern corner of the site to 0.0043 feet per foot beneath the western portion of the site.

GROUND WATER CHEMISTRY MONITORING RESULTS

Analytical data are provided in Tables 2 and 3. Complete analytical laboratory reports along with chain of custody records are included in the Appendix.

No sheen or hydrocarbon-like odors were reported for any of the wells sampled during this round.

Detectable concentrations of PCBs were found only in the ground water samples collected from monitoring well MW-1 during the May 1992 sampling round (2 μg/L). This well was dry in August 1992 and again in November 1992, so no samples could be collected. Detectable concentrations of PCBs were not found in any other tested wells during this round.

Detectable concentrations of total petroleum hydrocarbons as diesel (TPH(d)) and total petroleum hydrocarbons as waste oil (TPH(wo)) were detected in the samples collected from MW-6 and MW-8 only. TPH(d) and (TPH(wo)) were not detected in samples collected from any of the other monitoring wells. Generally, analytical data indicate a decrease in the concentrations of TPH as diesel and waste oil in the water samples collected as compared to the March 1992, May 1992, and August 1992 data.

Detectable concentrations of oil and grease and total hydrocarbons were also detected in the samples collected from MW-6 and MW-8 only, in contrast to the August 1992 sampling round when these constituents were not found in any of the water samples (Table 2). Sample analysis for BTEX and halogenated volatile organic compounds has been discontinued for all monitoring wells at this site with concurrence from the ACDHS.

An offsite water supply well located east of the site (Jamieson Well 14A2) was sampled (Plate 2). The well was purged by opening a tap and running the water for about 5 minutes in order to empty the purge tank. Approximately 30 gallons of water were purged prior to collecting a sample. This sample was analyzed for the same constituents as the onsite monitoring wells. None of the target compounds were detected in concentrations above their respective laboratory reporting limits.

SUMMARY

In summary, based on the available data, the ground water surface elevation beneath the site is lower than the previous sampling round and ground water flow remains generally toward the northeast. At several well locations the ground water surface continues to be below the bottom of the well. The ground water chemistry has remained, for the most part, consistent between sampling rounds although concentrations have generally decreased since May 1992. The ground water samples collected from the offsite water production well (Jamieson well) did not exhibit concentrations of the target chemicals at concentrations above the laboratory reporting limits for the compounds requested.

RECOMMENDED RI ACTIVITIES

Oil and grease, TPH(d), TPH(wo), total hydrocarbons, and PCBs have occasionally been found in water samples obtained from some of the onsite monitoring wells. Continuance of monitoring for these compounds is also part of the proposed waste discharge requirements which were prepared for this site. Therefore, it is recommended that during the next quarterly round (February 1993) that water samples be analyzed for these same compounds. This is to allow an assessment of possible changes in concentrations of these compounds found in selected water samples.

OTHER ACTIVITIES

Design plans and specifications for construction of the proposed remediation system are in preparation. An application for Waste Discharge has been submitted to ACDHS and the Regional Water Quality Control Board requesting discharge to a nearby infiltration pond.

LIMITATIONS

This report was prepared in general accordance with the accepted standard of practice which exists in Northern California at the time the investigation was performed. It should be recognized that definition and evaluation of environmental conditions is a difficult and inexact art. Judgements leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies. If the Client wishes to reduce the uncertainty beyond the level associated with this study, Kleinfelder should be notified for additional consultation.

Our firm has prepared this report for the Client's exclusive use for this particular project and in accordance with generally accepted engineering practices within the area at the time of our investigation. No other representations, expressed or implied, and no warranty or guarantee is included or intended.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both onsite and offsite) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.

If you have any questions regarding this report or require additional information, please contact the undersigned.

Sincerely,

KLEINFELDER, INC.

Guy A. Jett
Staff Geologist

David K. Behrens, P.E.,
Senior Project Manager

GAJ/DKB:rgc

cc: Dwight Beavers - Industrial Asphalt
Ravi Arulanantham - Alameda County Department of Environmental Services
John Jang - California Regional Water Quality Control Board
Jerry Killingstad - Alameda County Flood Control and Water Conservation District, Zone 7

TABLE 1
SUMMARY OF 1992 GROUND WATER ELEVATIONS
INDUSTRIAL ASPHALT

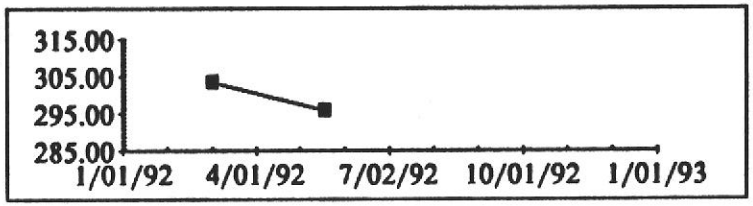
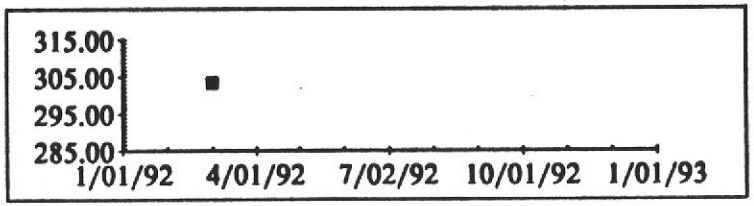
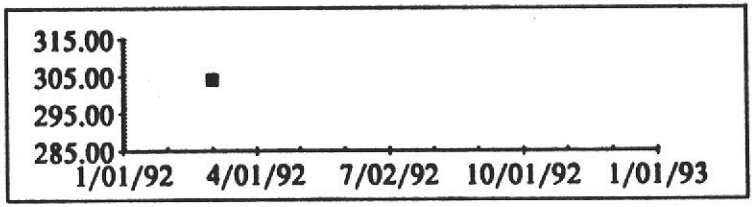
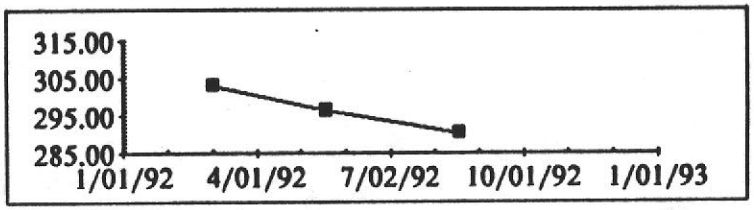
Well Number	Date	Total Well Depth (ft)	Survey Elevation (ft, MSL)	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-1	3/03/92	88	379.41	SHEEN	76.01	303.40	
	5/19/92			SHEEN	83.54	295.87	
	8/19/92			NA	DRY		
	11/18/92			NA	DRY		
MW-2	3/03/92	90	379.80	SHEEN	76.59	303.21	
	5/19/92			NA	Not Measured		
	8/19/92			NA	DRY		
	11/18/92			NA	DRY		
MW-3	3/03/92	90	378.54	SHEEN	74.72	303.82	
	5/19/92			NA	DRY		
	8/19/92			NA	DRY		
	11/18/92			NA	DRY		
MW-4	3/03/92	95	376.26	NE	73.20	303.06	
	5/19/92			NE	79.59	296.67	
	8/19/92			NE	86.12	290.14	
	11/18/92			NA	NOT ACCESSABLE		

TABLE 1
SUMMARY OF 1992 GROUND WATER ELEVATIONS
INDUSTRIAL ASPHALT

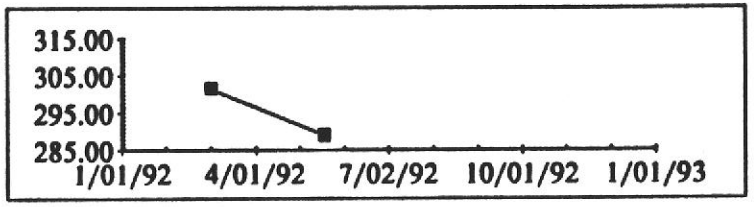
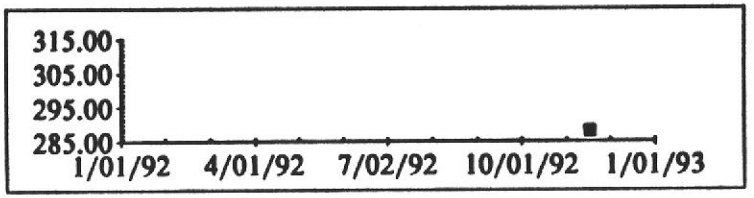
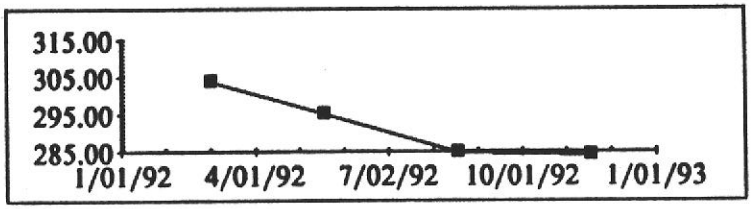
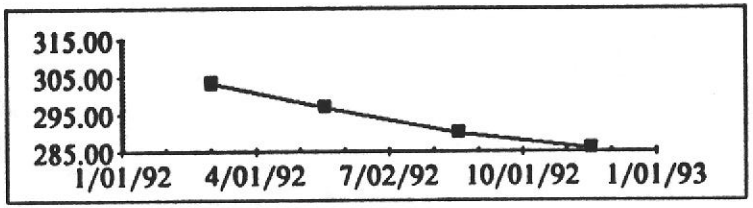
Well Number	Date	Total Well Depth (ft)	Survey Elevation (ft, MSL)	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-5	3/03/92	110	382.55	NE	81.23	301.32	
	5/19/92			NE	93.51	289.04	
	8/19/92			NA	DRY		
	11/18/92			NA	DRY		
MW-6	3/03/92	109	379.15	NA	Not Measured		
	5/19/92			NA	Not Measured		
	8/19/92			NA	Not Measured		
	11/18/92			NE	91.40	287.75	
MW-7	3/03/92	109	378.94	NE	75.29	303.65	
	5/19/92			NE	83.85	295.09	
	8/19/92			NE	94.21	284.73	
	11/18/92			NE	94.96	283.98	
MW-8	3/03/92	109	378.56	SHEEN	75.20	303.36	
	5/19/92			SHEEN	81.76	296.80	
	8/19/92			NE	88.57	289.99	
	11/18/92			NE	92.56	286.00	

TABLE 1
SUMMARY OF 1992 GROUND WATER ELEVATIONS
INDUSTRIAL ASPHALT

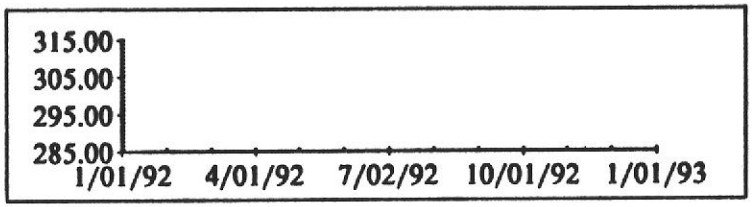
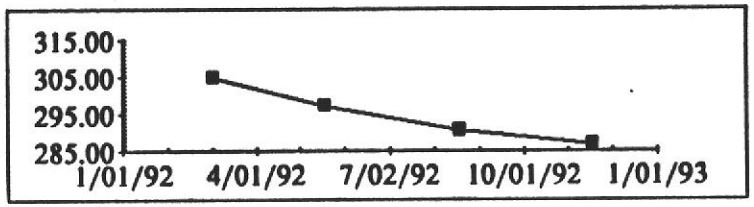
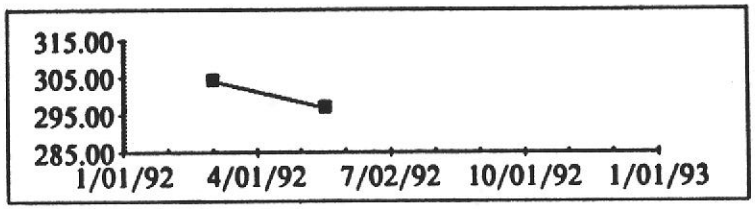
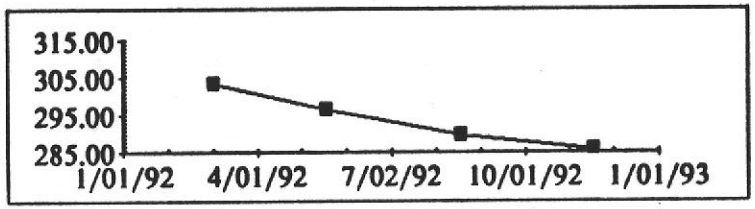
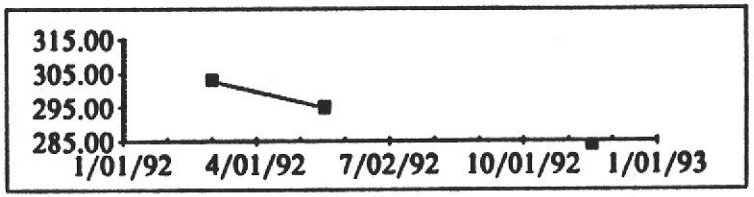
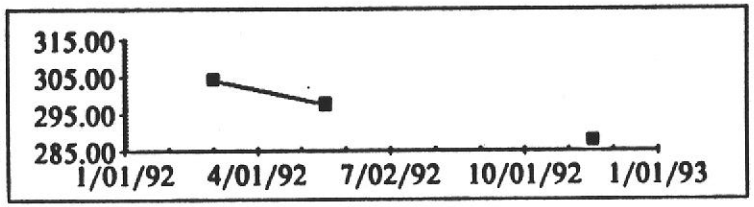
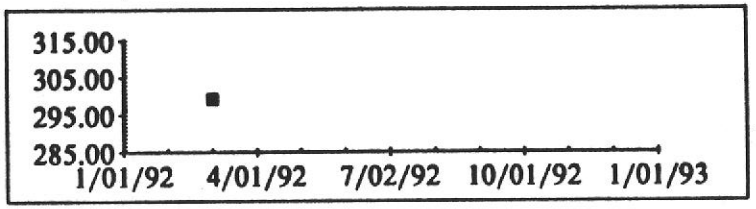
Well Number	Date	Total Well Depth (ft)	Survey Elevation (ft, MSL)	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-9	3/03/92	108	377.40	NA	Not Measured		
	5/19/92			NA	Not Measured		
	8/19/92			NA	Not Measured		
	11/18/92			NA	NOT ACCESSABLE		
MW-10	3/03/92	111	378.04	NE	73.10	304.94	
	5/19/92			NE	80.76	297.28	
	8/19/92			NE	87.54	290.50	
	11/18/92			NE	91.30	286.74	
MW-13 Extraction Well	3/03/92	116	380.21	NE	76.03	304.18	
	5/19/92			NE	83.37	296.84	
	8/19/92	Converted to Well EX-11			Not Measured		
MW-14	3/03/92	114.5	380.09	NE	76.63	303.46	
	5/19/92			NE	83.46	296.63	
	8/19/92			NE	90.39	289.70	
	11/18/92			NE	94.36	285.73	

TABLE 1
SUMMARY OF 1992 GROUND WATER ELEVATIONS
INDUSTRIAL ASPHALT

Well Number	Date	Total Well Depth (ft)	Survey Elevation (ft, MSL)	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-15	3/03/92	117	378.12	NE	75.54	302.58	
	5/19/92			NE	83.22	294.90	
	8/19/92			NA	Not Measured		
	11/18/92			NE	94.92	283.20	
MW-16	3/03/92	110	379.65	NE	75.61	304.04	
	5/19/92			NE	82.14	297.51	
	8/19/92				Not Measured		
	11/18/92			NE	92.26	287.39	
STAFF GAGE	3/03/92	NA	300.00	NE	-1	299.00	
	5/19/92			NA	Not Measured		
	8/19/92			NA	Not Measured		
	11/18/92			NA	Below Staff Gage		

NOTES:

Survey elevations refer to Top of Casing, Mean Sea Level (USGS Datum)
Depth to Water in feet below Top of Casing
NA Not Applicable
NE Not Encountered

TABLE 2
MONITORING PARAMETERS
INDUSTRIAL ASPHALT

Well Number	Sample Date	TPH as Diesel[1] (mg/L)	TPH as Oil[1] (mg/L)	Oil & Grease[2] (mg/L)	Total Hydro-carbons[3] (mg/L)	PCBs[4] (μg/L)
MW-1	Mar. 1993	11	4.9	27	20	0.7
	May 1992	130	57	340	310	2
	Aug. 1992	DRY	DRY	DRY	DRY	DRY
	Nov. 1992	DRY	DRY	DRY	DRY	DRY
MW-2	Mar. 1992	4.1	1.5	10	8	ND
	May 1992	NT	NT	NT	NT	NT
	Aug. 1992	DRY	DRY	DRY	DRY	DRY
	Nov. 1992	DRY	DRY	DRY	DRY	DRY
MW-3	Mar. 1992	4.2	2.4	31	27	ND
	May 1992	NT	NT	NT	NT	NT
	Aug. 1992	DRY	DRY	DRY	DRY	DRY
	Nov. 1992	DRY	DRY	DRY	DRY	DRY
MW-4	Mar. 1992	ND	ND	3	1	ND
	May 1992	ND	0.8	1	0.7	ND
	Aug. 1992	ND	ND	ND	ND	ND
	Nov. 1992	NA	NA	NA	NA	NA
MW-5	Mar. 1992	ND	ND	ND	ND	ND
	May 1992	ND	ND	ND	ND	ND
	Aug. 1992	DRY	DRY	DRY	DRY	DRY
	Nov. 1992	DRY	DRY	DRY	DRY	DRY
MW-6	Mar. 1992	NT	NT	NT	NT	NT
	May 1992	NT	NT	NT	NT	NT
	Aug. 1992	NT	NT	NT	NT	NT
	Nov. 1992	0.1	0.3	1	0.7	ND
MW-7	Mar. 1992	ND	ND	ND	ND	ND
	May 1992	0.2	0.3	0.8	0.5	ND
	Aug. 1992	ND	ND	ND	ND	ND
	Nov. 1992	ND	ND	ND	ND	ND
MW-8[8]	Mar. 1992	0.5	0.1	0.6	ND	ND
	May 1992	0.3	ND	ND	ND	ND
	Aug. 1992	0.1(0.1)	ND(ND)	ND(ND)	ND(ND)	ND(ND)
	Nov. 1992	0.4(0.2)	0.7(0.4)	1(0.5)	0.7(ND)	ND(ND)
MW-9	Mar. 1992	NT	NT	NT	NT	NT
	May 1992	NT	NT	NT	NT	NT
	Aug. 1992	NT	NT	NT	NT	NT
	Nov. 1992	NA	NA	NA	NA	NA
Laboratory Detection Limit[5]		0.05	0.1	0.5	0.5	0.5
Drinking Water Standard[6]		--	--	--	--	0.5

TABLE 2
(continued)
MONITORING PARAMETERS
INDUSTRIAL ASPHALT

Well Number	Sample Date	TPH as Diesel[1] (mg/L)	TPH as Oil[1] (mg/L)	Oil & Grease[2] (mg/L)	Total Hydro-carbons[3] (mg/L)	PCBs[4] (μ g/L)
MW-10	Mar. 1992	ND	ND	ND	ND	ND
	May 1992	0.4	0.4	3	0.8	ND
	Aug. 1992	ND	ND	ND	ND	ND
	Nov. 1992	ND	ND	ND	ND	ND
MW-13[7,8]	Mar. 1992	0.58(0.61)	ND(0.1)	ND(ND)	ND(ND)	ND(ND)
	May 1992	0.6	ND	0.5	ND	ND
	Aug. 1992	NT	Converted to Extraction Well			
	Nov. 1992	NT	Converted to Extraction Well			
MW-14[8]	Mar. 1992	ND	ND	ND	ND	ND
	May 1992	ND(ND)	ND(ND)	ND(ND)	ND(ND)	ND(ND)
	Aug. 1992	ND	ND	ND	ND	ND
	Nov. 1992	ND(ND)	ND(ND)	ND(ND)	ND(ND)	ND(ND)
MW-15[8]	Mar. 1992	0.3	ND	0.5	ND	ND
	May 1992	ND(ND)	ND(ND)	ND(ND)	ND(ND)	ND(ND)
	Aug. 1992	NT	NT	NT	NT	NT
	Nov. 1992	ND	ND	ND	ND	ND
MW-16[8]	Mar. 1992	1.4(1.5)	ND(ND)	1(2)	ND(ND)	ND(ND)
	May 1992	0.4	0.2	0.9	ND	ND
	Aug. 1992	NT	NT	NT	NT	NT
	Nov. 1992	ND	ND	ND	ND	ND
14A2[9]	Mar. 1992	ND	ND	ND	ND	ND
	May 1992	ND	ND	ND	ND	ND
	Aug. 1992	ND	ND	ND	ND	ND
	Nov. 1992	ND	ND	ND	ND	ND
Laboratory Detection Limit[5]		0.05	0.1	0.5	0.5	0.5
Drinking Water Standard[6]		--	--	--	--	0.5

TABLE 2
(continued)
MONITORING PARAMETERS
INDUSTRIAL ASPHALT

NOTES:

(1) Sample analysis via SM 3510 GCFID.

(2) Sample analysis via SM 5520C.

(3) Sample analysis via SM 5520F.

(4) Polychlorinated Biphenyl compounds. Sample analysis via EPA Test Method 8080.

(5) Routine Laboratory detection limits. Some limits may vary. Please refer to attached laboratory reports for specific detection limits.

(6) California Department of Health Services Drinking Water Standards, Primary Maximum Contaminant Levels (MCL); secondary MCLs listed in parentheses. Source: Water Quality Goals, California Regional Water Quality Control Board, February 1991.

(7) Extraction Well.

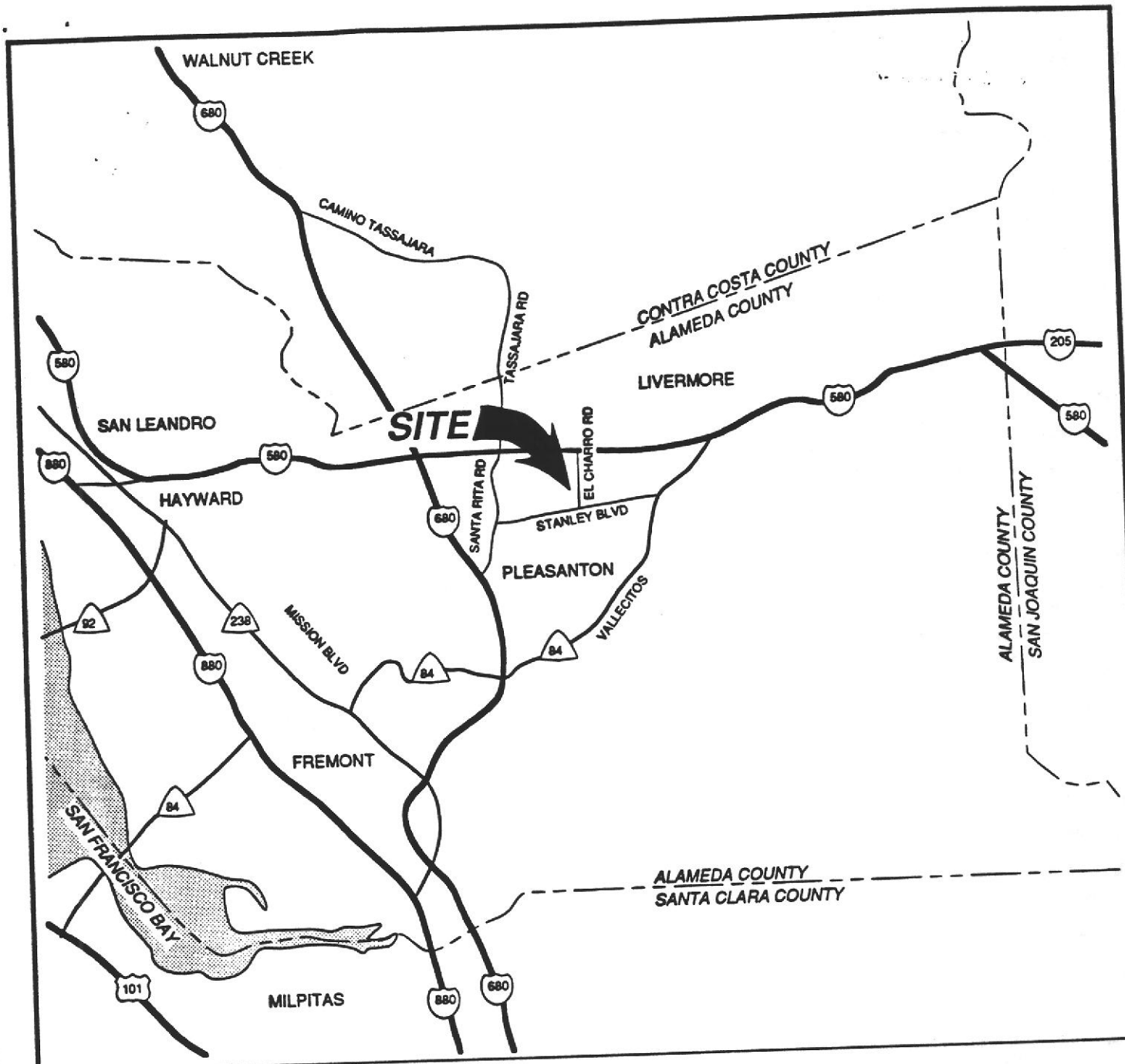
(8) Duplicate analyses in parentheses.

(9) Jamieson Well sampled via a tap.

TPH Total Petroleum Hydrocarbons.

ND Not Detected at or above laboratory reporting limits

NT Not Tested



KLEINFELDER

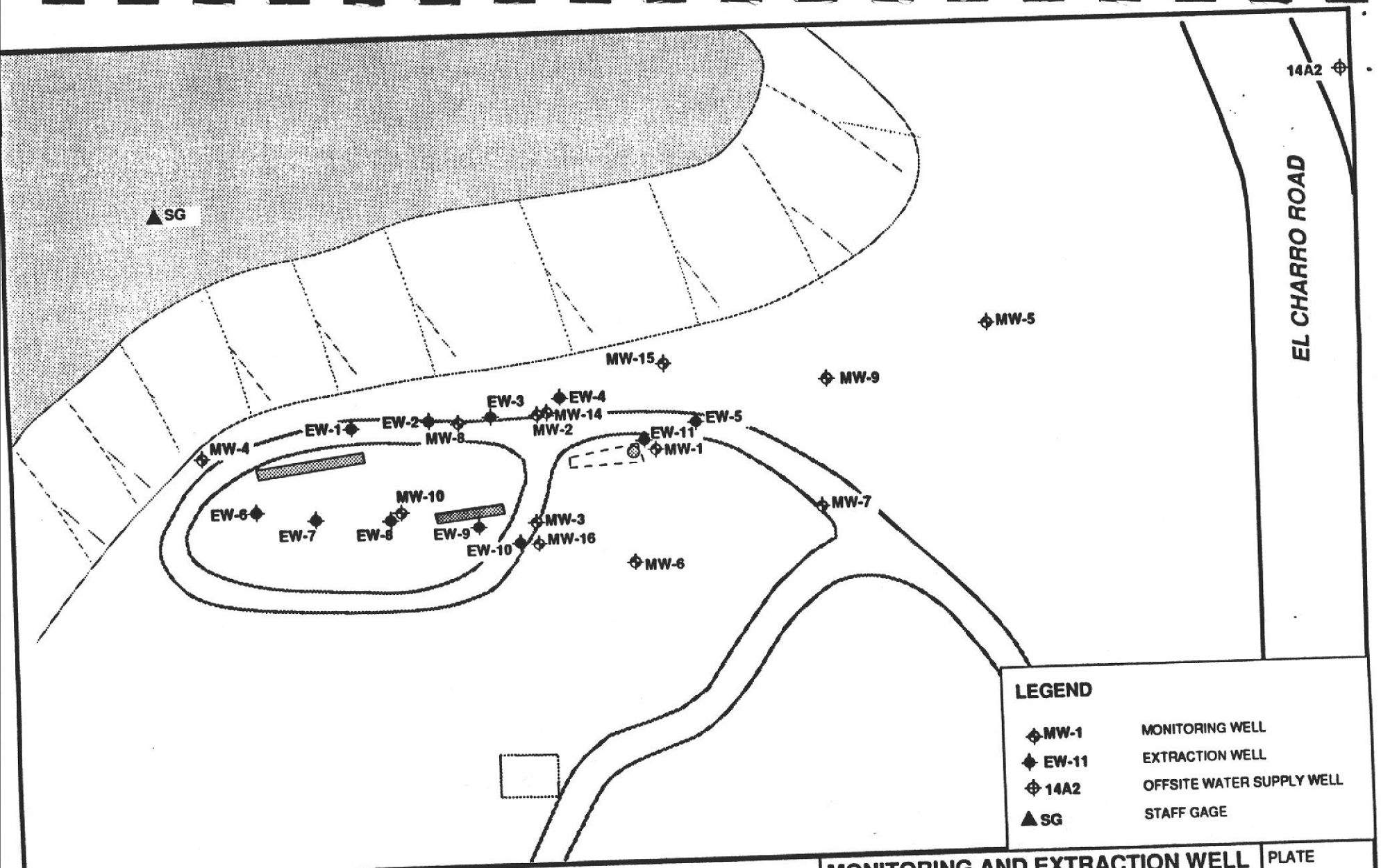
DRAFTED BY:	L. Sue	DATE: 10-16-92	
CHECKED BY:	D. Behrens	DATE: 12-16-92	

SITE LOCATION MAP

INDUSTRIAL ASPHALT
52 EL CHARRO ROAD
PLEASANTON, CALIFORNIA

PROJECT NUMBER 10-1682-03

PLATE 1



BASE MAP SOURCE:
Wells surveyed by Associated Professions Inc. and Kleinfelder Inc.
Site details from 1987 photo (No. HAP-753), Pacific Aerial Surveys.

KLEINFELDER

DRAFTED BY: L. Sue DATE: 12-16-92

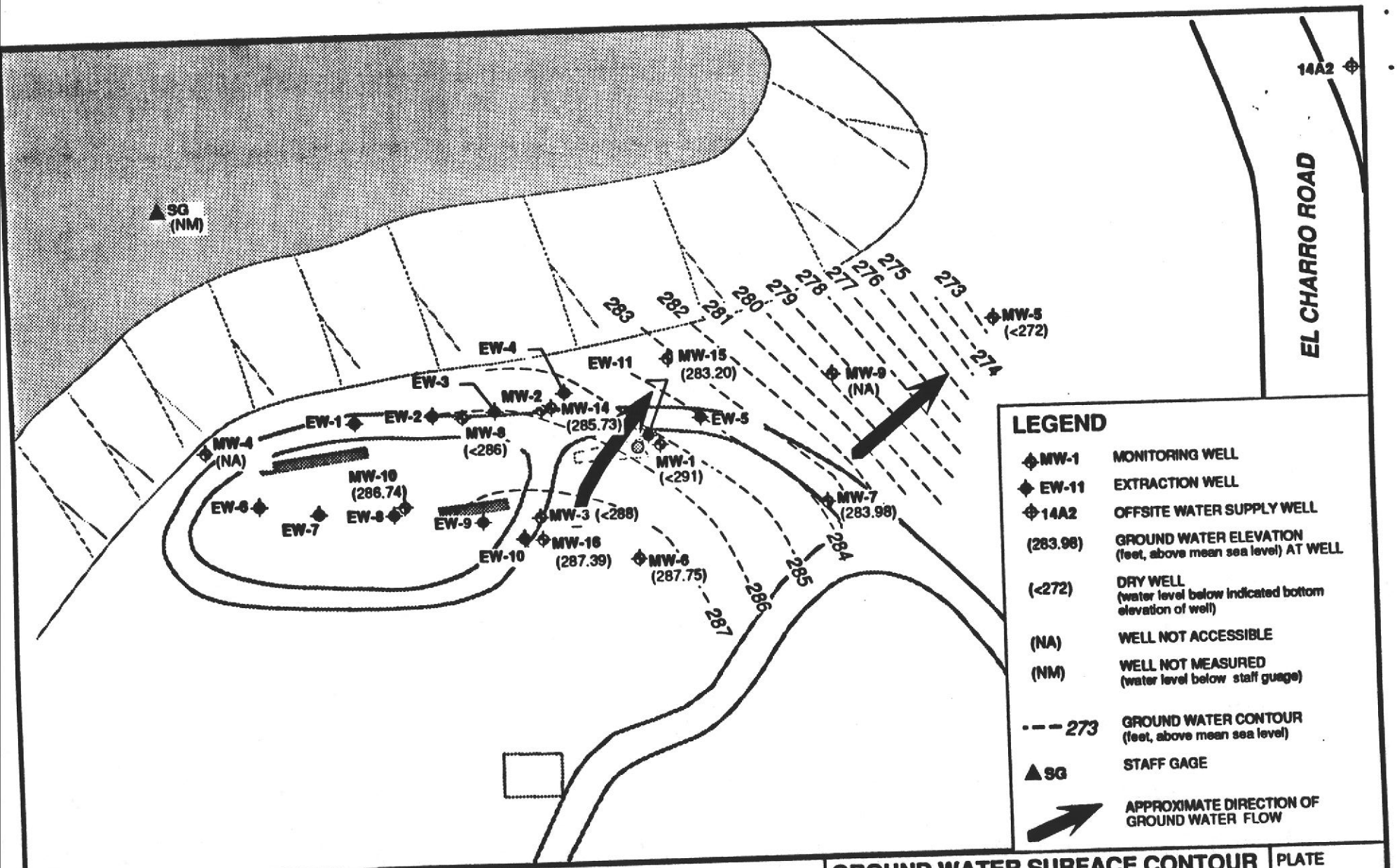
CHECKED BY: D. Behrens DATE: 12-16-92

MONITORING AND EXTRACTION WELL LOCATION MAP

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PROJECT NO. 10-1682-03

PLATE 2



0 150
Approximate Scale (feet)

N

BASE MAP SOURCE:
Wells surveyed by Associated Professions Inc. and Kleinfelder Inc.
Site details from 1987 photo (No. HAP-753), Pacific Aerial Surveys.

KLEINFELDER

DRAFTED BY: L. Sue DATE: 12-16-92

CHECKED BY: D. Behrens DATE: 12-21-92

GROUND WATER SURFACE CONTOUR MAP — MAY 1992

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PROJECT NO. 10-1682-03

PLATE 3

QuanteQ Laboratories

An Ecologics Company

Certificate of Analysis

DOHS CERTIFICATION NO. E772

AIHA ACCREDITATION NO. 332

Laboratory Analysis 1992

FILE COPY

KLEINFELDER, INC.
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596
ATTN: GUY JETT

CLIENT PROJ. ID: 10-1682-03
C.O.C. NO: 0067
P.O. NO: W1179

REPORT DATE: 12/08/92

DATE SAMPLED: 11/19/92

DATE RECEIVED: 11/19/92

QUANTEQ JOB NO: 9211176

PROJECT SUMMARY:

On November 19, 1992, this laboratory received six (6) water samples. Samples were received at the proper temperature and in appropriate containers.

Client requested five (5) samples be analyzed for Total Petroleum Hydrocarbons as Diesel and Oil by EPA Method 3510 GCFID, Oil & Grease by SM-5520C, Hydrocarbons by SM-5520F and Polychlorinated Biphenyls by EPA Method 8080. One (1) sample was placed on hold.

Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Manager

Results FAXed 12/02/92

KLEINFELDER, INC.

DATE SAMPLED: 11/19/92
DATE RECEIVED: 11/19/92
CLIENT PROJ. ID: 10-1682-03

REPORT DATE: 12/08/92

QUANTEQ JOB NO: 9211176

Client Sample Id.	Quanteq Lab Id.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)	Oil & Grease (mg/L)	Hydrocarbons (mg/L)
61916 MW-14	01C	ND	ND	---	---
61932	01E	---	---	ND	ND
61928	02C	ND	ND	---	---
61926 MW-14 (d)	02E	---	---	ND	ND
61922	03C	ND	ND	---	---
61944 Tap	03E	---	---	ND	ND
60104	05C	ND	ND	---	---
60102 MW-15	05E	---	---	ND	ND
60108	06C	ND	ND	---	---
60112 MW-16	06E	---	---	ND	ND
Reporting Limit		0.05	0.2	0.5	0.5
Method:		EPA 3510 GCFID	EPA 3510 GCFID	SM-5520C	SM-5520F
Instrument:		C	C	IR	IR
Date Extracted:		11/25/92	11/25/92	11/23/92	11/23/92
Date Analyzed:		11/30/92	11/30/92	11/30/92	11/30/92

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61918 MW-14
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/19/92
DATE RECEIVED: 11/19/92
REPORT DATE: 12/08/92

QUANTEQ LAB NO: 9211176-01A
QUANTEQ JOB NO: 9211176
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61930 MW-14(d)
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/19/92
DATE RECEIVED: 11/19/92
REPORT DATE: 12/08/92

QUANTEQ LAB NO: 9211176-02A
QUANTEQ JOB NO: 9211176
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61934 Tap
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/19/92
DATE RECEIVED: 11/19/92
REPORT DATE: 12/08/92

QUANTEQ LAB NO: 9211176-03A
QUANTEQ JOB NO: 9211176
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 60180 MW-15
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/19/92
DATE RECEIVED: 11/19/92
REPORT DATE: 12/08/92

QUANTEQ LAB NO: 9211176-05A
QUANTEQ JOB NO: 9211176
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 60106 MW-16
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/19/92
DATE RECEIVED: 11/19/92
REPORT DATE: 12/08/92

QUANTEQ LAB NO: 9211176-06A
QUANTEQ JOB NO: 9211176
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/24/92
CLIENT PROJ. ID: 10-1682-03

QUANTEQ JOB NO: 9211176
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS
METHOD SPIKE RECOVERY SUMMARY
(WATER MATRIX)

ANALYTE	MS Conc. (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
Oil	6.81	ND	6.65	6.65	97.7	0.0

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(88-110)	5.8

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/25/92
DATE ANALYZED: 11/30/92
CLIENT PROJ. ID: 10-1682-03

QUANTEQ JOB NO: 9211176
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATERS
METHOD 3520 GCFID
(WATER MATRIX; EXTRACTION METHOD)

ANALYTE	Spike Conc. (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
Diesel	2.01	ND	1.15	1.28	60.4	10.7

CURRENT QC LIMITS (Revised 08/15/91)

Analyte	Percent Recovery	RPD
Diesel	(49.3-101.4)	29.0

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/23/92

QUANTEQ JOB NO: 9211176

CLIENT PROJ. ID: 10-1682-03

INSTRUMENT: A

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
11/23/92	61918	01A	96
11/23/92	61930	02A	99
11/23/92	61934	03A	99
11/23/92	60180	05A	97
11/23/92	60106	06A	97

CURRENT QC LIMITS (Revised 06/22/92)

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(30-131)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
CLIENT PROJ. ID: 10-1682-03

QUANTEQ JOB NO: 9211176
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: A

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8080 (PCBs)
(WATER MATRIX)

COMPOUND	Spike Amount (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
A1260	5.00	ND	4.86	4.98	98.4	2.4

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
A1260	(53-133)	16

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

[redacted] KLEINFELDER [redacted]

PROJ. NO.	PROJECT NAME
10-162-63	
L.P. NO. (P.O. NO.) W1179	SAMPLERS: (Signature/Number) Doug Heard 1282

Quantex 9211176

DATE MM/DD/YY	SAMPLE I.D. TIME HH:MM:SS	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: PCB's	TVPHgas Diesel	TPHas Oil	Oil & Grease	Total LUFT Metals	8020	HOLD	REMARKS
11/19/92		61918	2	X							
		61916	2		X	X					
		61932	2				X	X			
		61930	2	X							
		61928	2		X	X					
		61926	2				X	X			
		61934	2	X							
		61922	2		X	X					
		61944	2				X	X			
		60229	2						X	*	
		60180	2	X							
		60104	2		X	X					
		60102	2				X	X			
		60106	2	X							
		60108	2		X	X					
		60112	2				X	X			

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Doug Heard	11/19/92 1700	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	11/19/92 1700	Denise Harrington

Remarks
ATTN GUY JEFF
STANDARD T.A.T.

Send Results To
KLEINFELDER
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596
(415) 938-5610

M-80 White Sampler Canary - Return Copy To Shipper Pink Lab Copy

№ 0067

CHAIN OF CUSTODY

QuanteQ Laboratories

An Ecologics Company

FILE COPY
Laboratory Data 1992

Certificate of Analysis

DOHS CERTIFICATION NO. E[illegible]2

AIHA ACCREDITATION NO. [illegible]52

KLEINFELDER, INC.
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596
ATTN: GUY JETT

REPORT DATE: 12/10/92

DATE SAMPLED: 11/20/92

DATE RECEIVED: 11/20/92

QUANTEQ JOB NO: 9211190

CLIENT PROJ. ID: 10-1682-03
C.O.C. NO: 0063
P.O. NO: W1179

PROJECT SUMMARY:

On November 20, 1992, this laboratory received five (5) water samples. Samples were received at the proper temperature and in appropriate containers.

Client requested samples be analyzed for Total Petroleum Hydrocarbons as Diesel and Oil by EPA Method 3510 GCFID, Oil & Grease by Standard Method 5520C, Hydrocarbons by Standard Method 5520F and Polychlorinated Biphenyls by EPA Method 8080.

Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Manager

Results FAXed 12/03/92

KLEINFELDER, INC.

DATE SAMPLED: 11/20/92
DATE RECEIVED: 11/20/92
CLIENT PROJ. ID: 10-1682-03

REPORT DATE: 12/10/92
QUANTEQ JOB NO: 9211190

Client Sample Id.	Quanteq Lab Id.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)	Oil & Grease (mg/L)	Hydrocarbons (mg/L)
61958	01C	0.4	0.7	---	---
61958 MW-8	01E	---	---	1	0.7
61964	02C	0.2	0.4	---	---
61964 MW-8(d)	02E	---	---	0.5	ND
47465	03C	ND	ND	---	---
47465 MW-7	03E	---	---	ND	ND
61933	04C	ND	ND	---	---
61933 MW-10	04E	---	---	ND	ND
61938	05C	0.1	0.3	---	---
61938 MW-6	05E	---	---	1	0.7
Reporting Limit		0.05	0.2	0.5	0.5
Methods:		EPA 3510 GCFID	EPA 3510 GCFID	SM-5520C	SM-5520F
Instrument:		C	C	IR	IR
Date Extracted:		11/30/92	11/30/92	11/30/92	11/30/92
Date Analyzed:		12/02/92	12/02/92	11/30/92	11/30/92

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61958
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/20/92
DATE RECEIVED: 11/20/92
REPORT DATE: 12/10/92

QUANTEQ LAB NO: 9211190-01A
QUANTEQ JOB NO: 9211190
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/24/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61964
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/20/92
DATE RECEIVED: 11/20/92
REPORT DATE: 12/10/92

QUANTEQ LAB NO: 9211190-02A
QUANTEQ JOB NO: 9211190
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/24/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 47465
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/20/92
DATE RECEIVED: 11/20/92
REPORT DATE: 12/10/92

QUANTEQ LAB NO: 9211190-03A
QUANTEQ JOB NO: 9211190
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/24/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61933
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/20/92
DATE RECEIVED: 11/20/92
REPORT DATE: 12/10/92

QUANTEQ LAB NO: 9211190-04A
QUANTEQ JOB NO: 9211190
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/24/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

KLEINFELDER, INC.

SAMPLE ID: 61938
CLIENT PROJ. ID: 10-1682-03
DATE SAMPLED: 11/20/92
DATE RECEIVED: 11/20/92
REPORT DATE: 12/10/92

QUANTEQ LAB NO: 9211190-05A
QUANTEQ JOB NO: 9211190
DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/24/92
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(WATER MATRIX)

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	0.5
Aroclor 1221	11104-28-2	ND	0.5
Aroclor 1232	11141-16-5	ND	0.5
Aroclor 1242	53469-21-9	ND	0.5
Aroclor 1248	12672-29-6	ND	0.5
Aroclor 1254	11097-69-1	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/25/92
DATE ANALYZED: 11/30/92
CLIENT PROJ. ID: 10-1682-03

QUANTEQ JOB NO: 9211190
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATERS
METHOD 3520 GCFID
(WATER MATRIX; EXTRACTION METHOD)

ANALYTE	Spike Conc. (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
Diesel	2.01	ND	1.15	1.28	60.4	10.7

CURRENT QC LIMITS (Revised 08/15/91)

Analyte	Percent Recovery	RPD
Diesel	(49.3-101.4)	29.0

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/23/92

QUANTEQ JOB NO: 9211190

CLIENT PROJ. ID: 10-1682-03

INSTRUMENT: A

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
11/24/92	61958	01A	89
11/24/92	61964	02A	88
11/24/92	47465	03A	87
11/24/92	61933	04A	73
11/24/92	61938	05A	81

CURRENT QC LIMITS (Revised 06/22/92)

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(30-131)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/23/92
DATE ANALYZED: 11/23/92
CLIENT PROJ. ID: 10-1682-03

QUANTEQ JOB NO: 9211190
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: A

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8080 (PCBs)
(WATER MATRIX)

COMPOUND	Spike Amount (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
A1260	5.00	ND	4.86	4.98	98.4	2.4

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
A1260	(53-133)	16

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

[redacted] KLEINFELDER [redacted]

PROJ. NO.	PROJECT NAME
10-1682-03	
L.P. NO. (P.O NO.)	SAMPLERS: (Signature/Number) Gary Heard / 1282

9211190

DATE MM/DD/YY	SAMPLE I.D. TIME HH:MM:SS	SAMPLE I.D.		NO. OF CONTAINERS	ANALYSIS: PCB's	TPH as diesel	TPH as oil	Oil & Grease	Total Hydrocarbons	REMARKS
11/20/92		61958	1A-F	6	X	X	X	X	X	
↓		61964	2A-F	6	X	X	X	X	X	
		47465	3A-F	6	X	X	X	X	X	
		61933	4A-F	6	X	X	X	X	X	
		61938	5A-F	6	X	X	X	X	X	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Gary Heard	11/20/92	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	11/20/92 16:15	Robin Byars

Remarks

ATT'N GUY JETT

STANDARD T.A.T

Send Results To

KLEINFELDER
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596
(415) 938-5610

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№ 0063

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