KLEINFELDER

PROJECT STATUS REPORT NO.2
ENVIRONMENTAL ENGINEERING SERVICES
INDUSTRIAL ASPHALT FACILITY
PLEASANTON, CALIFORNIA

March 22, 1988

KLEINFELDER

March 22, 1988
File: 10-1682-03

Mr. Dwight Beavers
Vice President-Technical
Industrial Asphalt
6623 Calle Eva Miranda
P.O. Box 2263
Irwindale, ca 91706

SUBJECT: Project Status Report Number 2
Environmental Engineering Services
Industrial Asphalt Facility
Pleasanton, California

Dear Mr. Beavers:

We are pleased to submit this project status report on our environmental engineering services for your Industrial Asphalt facility in Pleasanton, California. The enclosed report provides a description of the work performed, results of analytical testing, and recommendations for additional work needed to comply with state and local agency requirements.

This report is being submitted for your review. Following receipt of your comments, we will prepare final copies for submittal to the regulatory agencies.

We appreciate the opportunity to work with you on this project and trust that this report meets your needs at the present time. If you have any questions, please do not hesitate to contact us.

Very truly yours,

KLEINFELDER

Elaine J. Hanford, R.G.
Project Manager

R. Jeffrey Dunn, Ph.D., G.E.
Assistant Engineering Manager

cc: Dennis Hunt

A Report Prepared for:

Industrial Asphalt
6623 Calle Eva Miranda
Irwindale, CA 91706

PROJECT STATUS REPORT NO. 2
ENVIRONMENTAL ENGINEERING SERVICES
INDUSTRIAL ASPHALT FACILITY
PLEASANTON, CALIFORNIA

Kleinfelder Job No. 10-1682-03

by

Elaine J. Hanford, R.G.
Project Manager

R. Jeffrey Dunn, Ph.D., G.E.
Assistant Engineering Manager

KLEINFELDER
California Plaza, Suite 570
2121 North California Boulevard
Walnut Creek, California 94596
(415) 938-5610

March 22, 1988

1 SUMMARY

This progress report on the environmental engineering services at the Industrial Asphalt facility provides status information on underground tank removal and disposal of contaminated backfill material, well canvass, soil gas vapor feasibility study, and monitoring of three onsite wells with associated analytical testing.

Four underground tanks previously used for asphalt storage were excavated. Contaminated backfill was also excavated, and was temporarily contained and stockpiled onsite. With total petroleum hydrocarbon concentrations in excess of 1000 parts per million, this hazardous waste was disposed of by recycling onsite in accordance with California Administrative Code, Titles 22 and 23.

Monitoring of product thickness and analytical testing for total petroleum hydrocarbon and polychlorinated biphenyl concentrations in the ground water in these onsite wells has been conducted on a monthly basis. Free product in the three wells ranges typically from one to eight feet in thickness. Total petroleum hydrocarbon concentrations are generally less than 350 parts per million. Polychlorinated biphenyl concentrations are generally less than ten parts per billion. Greater concentrations have been detected in ground water samples, but are believed to be a result of contamination with free product during the sampling procedure.

A preliminary well canvass has resulted in the compilation of data on location, construction and use of known wells within a one mile radius of the site. This data will be used to evaluate regional ground water conditions.

Detection of methane, a natural biodegradation product of diesel, was detected during a soil gas vapor feasibility study. Methane levels that differed by an order of magnitude suggest that the technique can likely be utilized at this site to aid in delineation of the contaminant plume.

2 RECOMMENDATIONS

Based on our analysis of the data and work completed to date, and the "Guidelines for Addressing Fuel Leaks" issued by the California Regional Water Quality Control Board, we make the following recommendations:

1) Additional Monitoring Wells and Observations

Monthly monitoring of the three onsite wells should be continued to evaluate depth to ground water and any changes in free product thickness and distribution. Two additional monitoring wells should be installed to confirm the extent of the contaminant plume and the results of the soil gas vapor feasibility study, and to further characterize ground water contamination. Following installation and development, these two additional wells should be included in the monthly monitoring.

2) Soil Gas Vapor Survey

If the results of the soil gas vapor feasibility study are confirmed by the two additional monitoring wells, then a soil gas vapor survey should be conducted as an aid in delineating the lateral extent of the contaminant plume in the subsurface.

The results of these two recommended tasks would serve to further characterize the contaminant plume, and provide additional data base for identifying and evaluating alternative remedial actions for both ground water and soil.

3 PROJECT DESCRIPTION

This report presents a status report on the results of our on-going third phase of environmental engineering services at the Industrial Asphalt facility in Pleasanton, California (Plate 1). This work included observation and testing associated with removal of underground asphalt storage tanks, disposal of contaminated backfill material, monitoring of three onsite ground water monitoring wells, associated ground water sample collection and laboratory analysis, well canvass, and soil gas vapor survey.

Results of our first and second phases of site investigation were presented in our report entitled "Final Environmental Investigation Report, Industrial Asphalt Facility, Eastern Alameda County, California", dated May 18, 1987, and in our report entitled "Project Status Report: Environmental Engineering Services, Industrial Asphalt Facility, Pleasanton, California", dated September 4, 1987.

3.2 PURPOSE AND SCOPE OF SERVICES

In accordance with our recommendations presented in our September 4, 1987, Progress Report and our proposed workplan for additional site assessment, dated September 11, 1987, this continuing phase of our investigation is being conducted to provide site characterization to serve as a basis for site remediation. This progress report provides documentation of tasks completed to date.

The following scope of work has been completed to date toward these objectives:

1) Onsite observation of the excavation and removal of remaining underground asphalt tanks, with closure sampling and analytical testing of closure samples.

2) Conduct well canvass of available agency file data to identify existing wells.

3. Conduct soil gas vapor feasibility study.

4) Conduct level survey to measure depth to ground water and thickness of free product, if present, in each of three onsite monitoring wells on a monthly basis.

5) Collect and analyze ground water samples in each of three onsite monitoring wells for total petroleum hydrocarbons (TPH) as diesel and for polychlorinated biphenyls (PCBs)

6) Prepare status report summarizing field investigations and analytical data, and provide recommendations for further site investigation.

4 FIELD ACTIVITIES AND OBSERVATIONS

Three monitoring wells are present onsite at the locations shown on Plate 2. The location of the four underground asphalt storage tanks removed during this phase of the investigation are also shown on Plate 2.

4.2 TANK REMOVAL

On September 20, 1987, a Kleinfelder geologist observed the excavation and removal of the four remaining underground asphalt storage tanks. Excavated backfill was temporarily stockpiled and contained onsite. Twelve closure samples were collected in the excavation at the locations shown on Plate 3. In addition, four samples of the stockpiled backfill were collected. Samples were labelled and prepared for onsite submission to Anatec Laboratories, Inc., field chemist who performed total petroleum hydrocarbon analysis in a mobile laboratory. Based on the mobile laboratory analytical data, the backfill and contaminated soil were removed to the extent feasible to expose soil with low levels of contamination.

In addition, four samples of the stockpiled backfill were collected, labelled and submitted to the Anatec field chemist for transport to the laboratory. These samples were composited on an equal weight basis for analysis of total petroleum hydrocarbons and PCBs.

4.3 MONITORING WELL OBSERVATIONS

On a monthly basis, measurements of depth to ground water and product thickness have been made and recorded; results are listed in Table 4-1.

After measurements were recorded, samples of the ground water were collected for analytical testing using a bailer. Prior to sampling, the bailer was steam cleaned to minimize the potential for cross contamination. To collect a sample, the bailer was lowered into the well casing below static water level. The bailer was then retrieved from the well and the water sample decanted into a one liter glass bottle and 40 milliliter glass volatile organic analysis (VOA) vials. The

samples were labelled and immediately placed in refrigerated storage for transport to the analytical laboratory.

4.4 CHAIN-OF-CUSTODY

All samples were labelled and transported under chain-of-custody control to the analytical laboratory. Soil and backfill samples were submitted to Anatec Laboratories, Inc., of Santa Rosa, California. All ground water samples were submitted to Med-Tox Associates, Inc., in Pleasant Hill, California. Copies of the chain-of-custody forms are included in Appendix A of this report.

4.5 DISPOSAL OF CONTAMINATED BACKFILL

Contaminated backfill removed during underground tank excavation on September 20, 1987, was temporarily stockpiled and contained onsite. In accordance with California Administrative Code, Titles 22 and 23, Kleinfelder sought and received concurrence from the Regional Water Quality Control Board and Department of Health Services for disposal of the hydrocarbon contaminated backfill by onsite recycling through the asphalt plant at the Industrial Asphalt facility. The stockpiled backfill was recycled onsite through the asphalt and batch plants. Copies of letters regarding the disposal by recycling are included in Appendix B of this report.

4.6 WELL CANVASS

The files of Alameda County Flood Control and Water Conservation District have been reviewed for well data in the site vicinity. Plate 4 shows the locations of known wells within a one mile radius of the site. Information such as location, total depth, depth to water bearing zones, and use has been tabulated to serve as a basis for characterizing regional ground water conditions.

4.7 SOIL GAS VAPOR FEASIBILITY

A limited soil gas vapor study was conducted to evaluate the feasibility of this technique for use in plume definition. Kleinfelder supervised and directed the soil gas vapor study conducted on October 10, 1987, by Tracer Research Corporation (TRC) of Tucson, Arizona. Soil gas vapor

samples were obtained by vacuum pumping through a probe that had been hydraulically driven into the soil.

Soil gas samples were analyzed by TRC gas chromatography methods, with results calibrated to an analytical standard. Analyses were conducted for Total Petroleum Hydrocarbons (as BTX); no detectable levels were found. Analyses were conducted for methane, a natural biodegradation product of the contaminant diesel. Detectable levels of methane for the sample locations shown on Plate 5 are listed in Table 4-2.

TABLE 4-1

MONITORING WELL DATA

Well	Date	Depth to Water	Product Thickness
MW-1	6-11-87	75.0	NE
	7-9-87	75.9	<0.1
	8-6-87	79.1	3.2
	9-9-87	79.3	1.84
	10-30-87	78.23	0.95
	11-30-87	77.68	1.10
	12-21-87	79.53	2.52
	1-25-88	77.88	1.63
	2-25-88	79.46	2.49
	3-18-88	81.61	2.93
MW-2	8-6-87	NE	14.0
	9-29-87	NE	12.05
	10-30-87	82.76	5.34
	11-30-87	84.12	7.79
	12-21-87	84.28	7.31
	1-25-88	84.26	8.07
	2-25-88	84.21	7.28
	3-18-88	86.18	7.56
MW-3	8-6-87	75.0	NE
	9-29-87	78.77	1.84
	10-30-87	78.44	2.11
	11-30-87	77.76	2.22
	12-21-87	77.88	1.68
	1-25-88	76.88	1.21
	2-25-88	77.80	1.60
	3-18-88	80.50	2.59

Depth given as feet below top of casing; product thickness in feet.

NE = Not Encountered

TABLE 4-2

SOIL GAS VAPOR DATA
October 10, 1987

	Depth of Probe (in feet)	Total Hydrocarbons as Methane (ppb)
SG-01	6.0	2.0
SG-02	7.0	0.2
SG-03	4.0	6.0
SG-04	4.0	7.0
SG-05	1.5	7.0
SG-06	1.5	5.0

5 LABORATORY ANALYSES

5.1 SOIL ANALYSES

Soil samples were analyzed onsite by Anatec, Inc., mobile laboratory, with confirmation testing conducted in the certified Anatec laboratory. Soil samples were analyzed using EPA Method 3550 for total petroleum hydrocarbons as diesel and EPA Method 8080 for polychlorinated biphenyls. The analytical laboratory report is included in Appendix A of this report and test results are listed in Table 5-1.

Total petroleum hydrocarbon concentrations as diesel in samples of soil and backfill excavated during underground tank removal ranged from 1,500 to 150,000 milligrams per kilogram (mg/kg). The composited sample of the backfill material had 9,000 mg/kg TPH as diesel (Sample 13A). Soil samples representative of the soil remaining in the excavated area had 26 mg/kg (Sample 3B) TPH or had non-detectable concentrations (Samples 5B, 7B, 9A, 10B, 11B and 12B).

Polychlorinated biphenyls were detected at a concentration of 0.51 milligrams per kilogram in Sample 1B. No PCB concentrations were detected in the other samples at a detection limit of 0.1 mg/kg.

5.2 WATER SAMPLES

Water samples were analyzed using EPA Method 8015 for Total Petroleum Hydrocarbons as diesel and EPA Method 608 for polychlorinated biphenyls. Analytical laboratory reports for water sample analyses are included in Appendix A of this report; results are listed in Table 5-1.

Typically, TPH concentrations in the ground water samples were less than 100 parts per million (ppm), with PCB concentrations less than 5.7 parts per billion (ppb). It is suspected that the water samples from well MW-1 collected in September and for all samples collected in October

and November of 1987, were contaminated with free product since measured PCB concentrations in the water samples are comparable to those measured in free product samples.

TABLE 5-1

ANALYTICAL DATA FOR SOIL SAMPLES

Sample	Extractable Petroleum Hydrocarbons, as Diesel	Polychlorinated Biphenyls as Arochlor 1260
S-1B	29,000	0.51
S-2B	2,000	ND(0.1)
S-3B	26	ND(0.1)
S-4B	1,500	ND(0.1)
S-5B	ND(10)	ND(0.1)
S-6B	2,300	ND(0.1)
S-7B	ND(10)	ND(0.1)
S-8B	150,000	ND(0.1)
S-9A	ND(10)	ND(0.1)
S-10B	ND(10)	ND(0.1)
S-11B	ND(10)	ND(0.1)
S-12B	ND(10)	ND(0.1)
S-13	9,000	ND(0.1)

All analytical results in milligrams per kilogram.

Sample S-13 was composite of four samples on equal weight basis.

All samples collected on September 20, 1987.

TABLE 5-2

ANALYTICAL DATA FOR GROUND WATER SAMPLES

Well	Date	Depth to Water	Product Thickness	TPH (ppm)	PCB (ppb)
MW-1	6-11-87	75.0	NE	NT	NT
	7-9-87	75.9	<0.1	NT	NT
	8-6-87	79.1	3.2	350	5.7
	9-29-87	79.3	1.84	510*	22*
	10-30-87	78.23	0.95	780*	22*
	11-30-87	77.68	1.10	1800	56*
	12-21-87	79.53	2.52	55	1
	1-25-88	77.88	1.63	96	ND(2)
	2-25-88	79.46	2.49	120	ND(2)
MW-2	8-6-87	NE	14.0	NT	NT
	9-29-87	NE	12.05	NT	NT
	10-30-87	82.76	5.34	1,100*	14*
	11-30-87	84.12	7.79	1100*	33*
	12-21-87	84.28	7.31	27	2
	1-25-88	84.26	8.07	150	ND(2)
	2-25-88	84.21	7.28	15	ND(2)
MW-3	8-6-87	75.0	NE	0.6	ND(0.5)
	9-29-87	78.77	1.84	7.6	2.7
	10-30-87	78.44	2.11	1100*	24*
	11-30-87	77.76	2.22	340*	62*
	12-21-87	77.88	1.68	46	2
	1-25-88	76.88	1.21	27	ND(2)
	2-25-88	77.80	1.60	6	ND(2)

Depth given as feet below top of casing; product thickness in feet.

TPH = Total Petroleum Hydrocarbons as diesel in water; PCB = Polychlorinated Biphenyls as Arochlor 1260 in water.

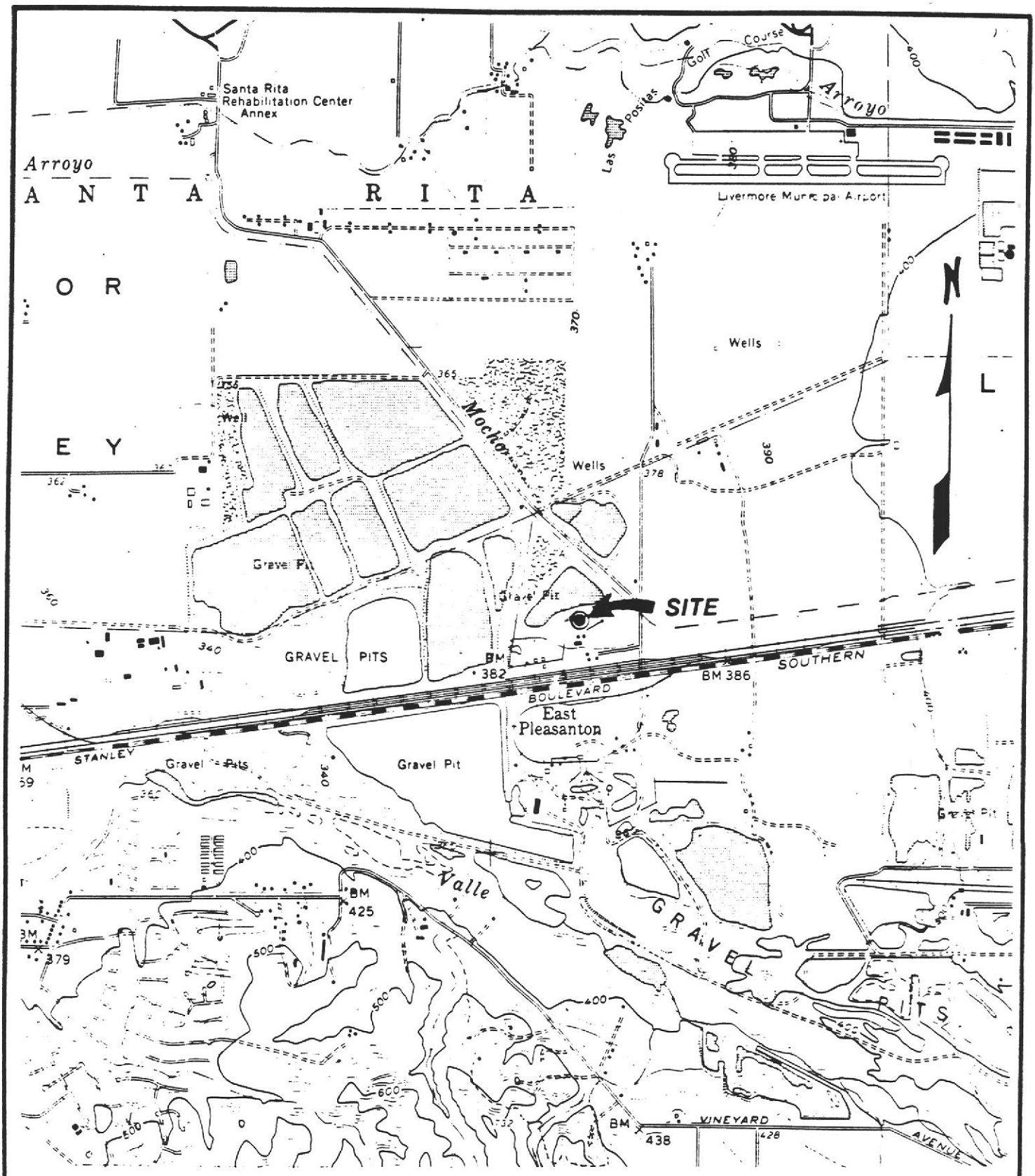
NE = Not Encountered
NT = Not Tested
ND = Not Detected as given detection limit
* = These samples may have been contaminated; analytical results may therefore be suspect.

6 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. Judgments 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 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 warranties, expressed or implied, as to the professional advice provided are made. The recommendations provided in this report are based on the assumption that an adequate program of tests and field observations will be conducted by our firm during subsequent phases in order to evaluate compliance with the recommendations.

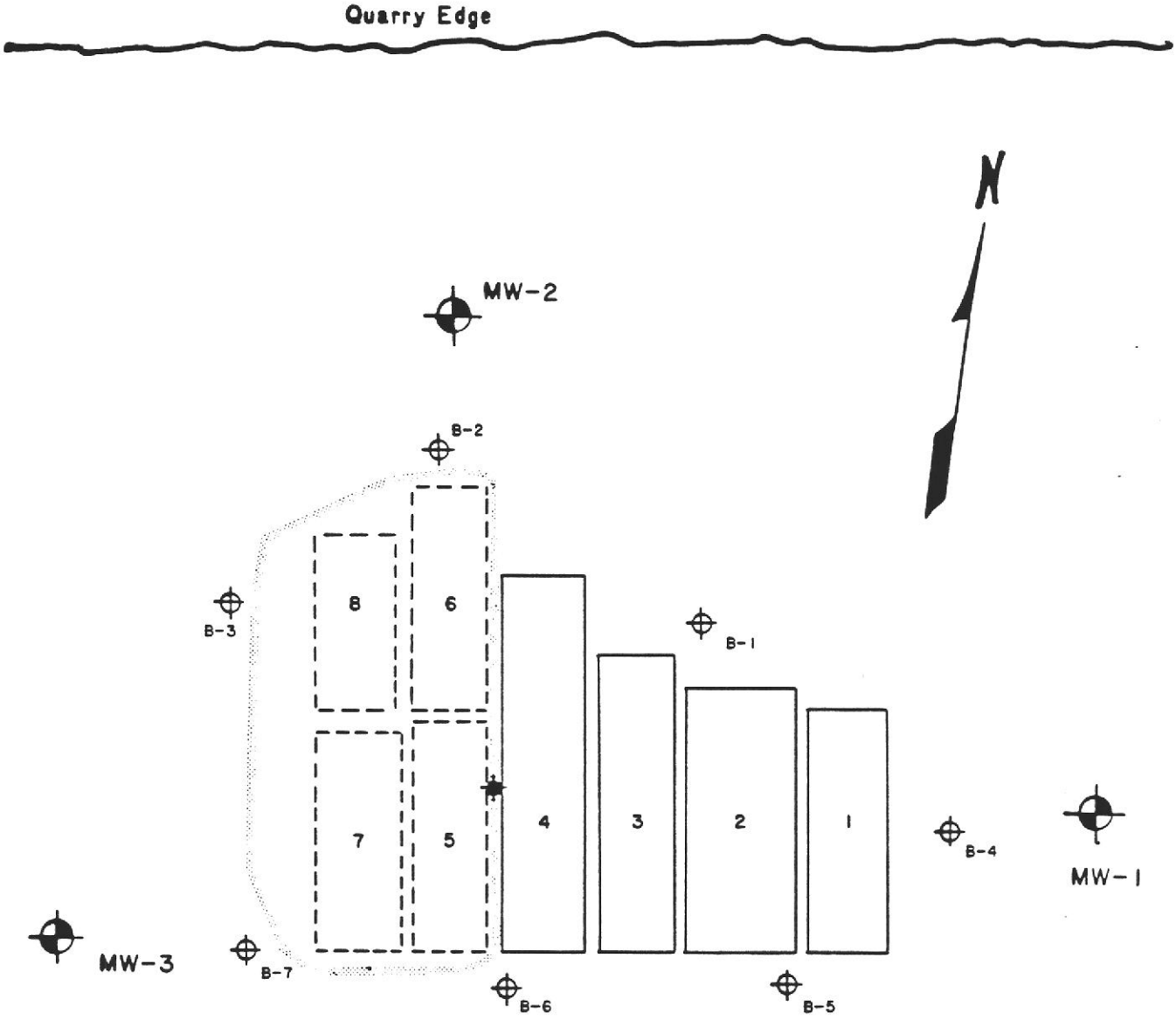
PLATES



SCALE 1:24000

Source: USGS 7.5 minute Livermore Quadrangle

KLEINFELDER	SITE LOCATION MAP	PLATE 1
PROJECT NO. 10-1682-03	INDUSTRIAL ASPHALT PLEASANTON, CALIFORNIA	



LEGEND

Asphalt Hopper Area

B-1 SOIL BORING (drilled March 1987)

MW-3 MONITORING WELL LOCATION

STORAGE TANKS (removed tanks dashed) TANKS 1–6: ASPHALT TANKS 7–8: DIESEL

BACKFILL SAMPLE LOCATION

APPROXIMATE OUTLINE OF PRIOR EXCAVATION (EXCAVATED FEBRUARY, 1987)

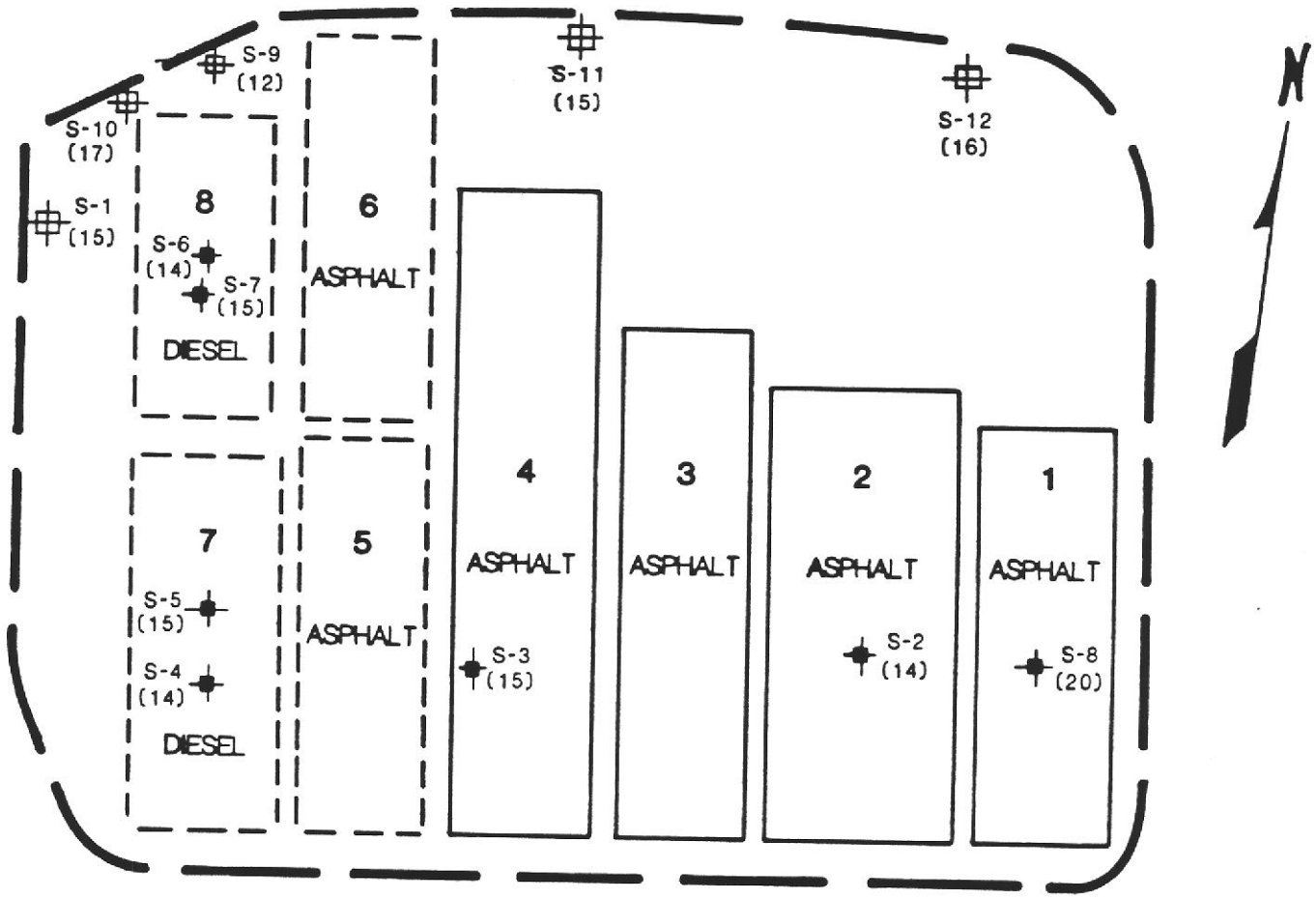
KLEINFELDER

PROJECT NO. 10-1682-03

MONITORING WELL LOCATION MAP

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PLATE 2



LEGEND

0 — 20 FEET
APPROXIMATE SCALE

PRE-EXISTING TANK LOCATION EXCAVATED FEBRUARY, 1987

LOCATION OF TANKS EXCAVATED SEPTEMBER 20, 1987

APPROXIMATE LIMITS OF EXCAVATION

S-2 (15) CLOSURE SAMPLE FROM EXCAVATION FLOOR (DEPTH)

S-1 (12) CLOSURE SAMPLE FROM EXCAVATION SIDEWALL (DEPTH)

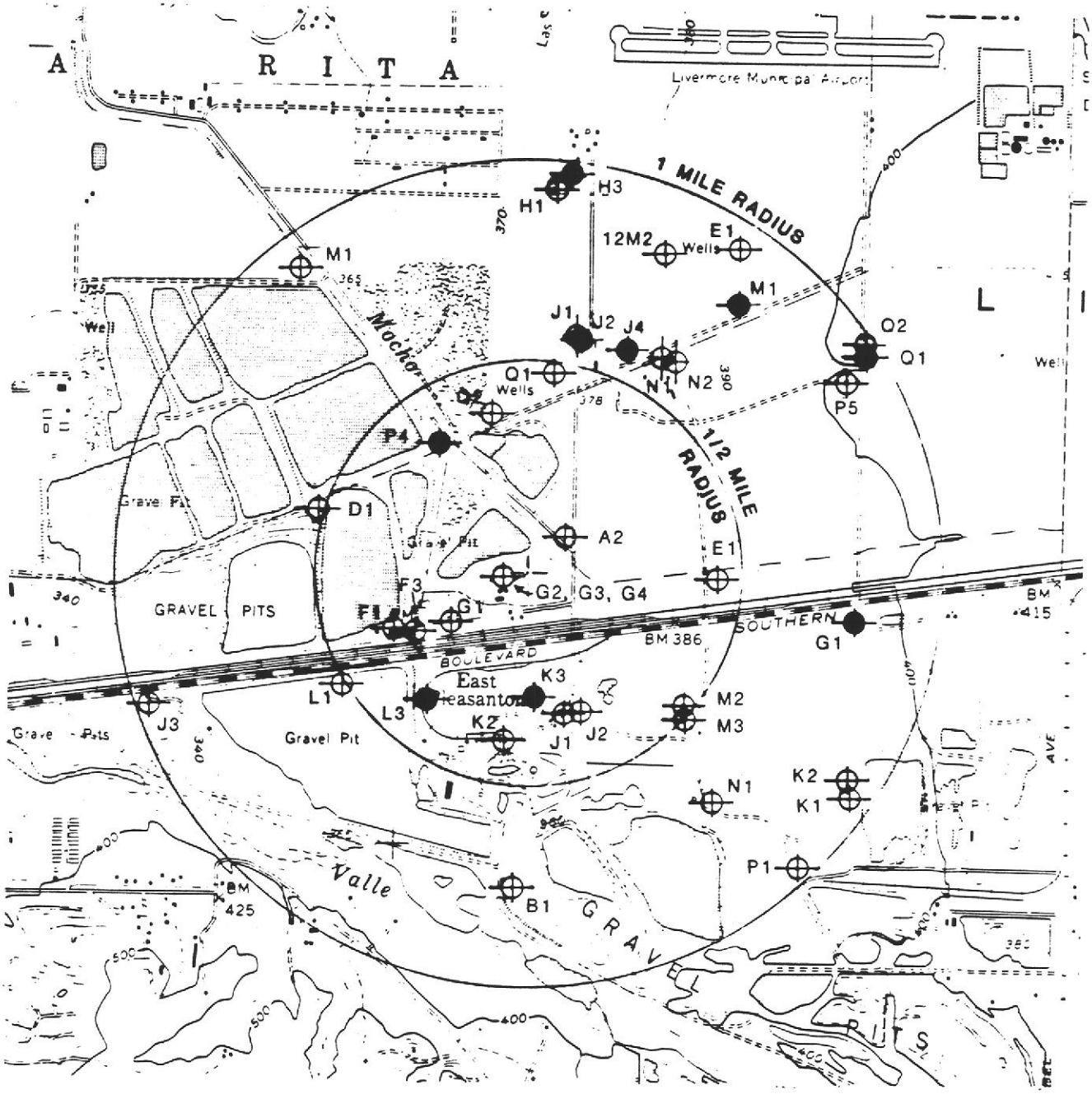
KLEINFELDER

PROJECT NO. 10-1682-03

UNDERGROUND TANK AND CLOSURE SAMPLE LOCATION MAP

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PLATE
3



LEGEND

M1 — ACTIVE WELL

P4 — ABANDONED OR DESTROYED WELL

—— DISTANCE FROM SITE

NOTE: BASE MAP SOURCE: USGS 7.5 MINUTE LIVERMORE QUADRANGLE MAP, 1980

WELL LOCATION MAP SOURCE: ZONE 7 - ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, AUGUST 10, 1987

WELL NUMBERS DESIGNATED BY DEPARTMENT OF WATER RESOURCES

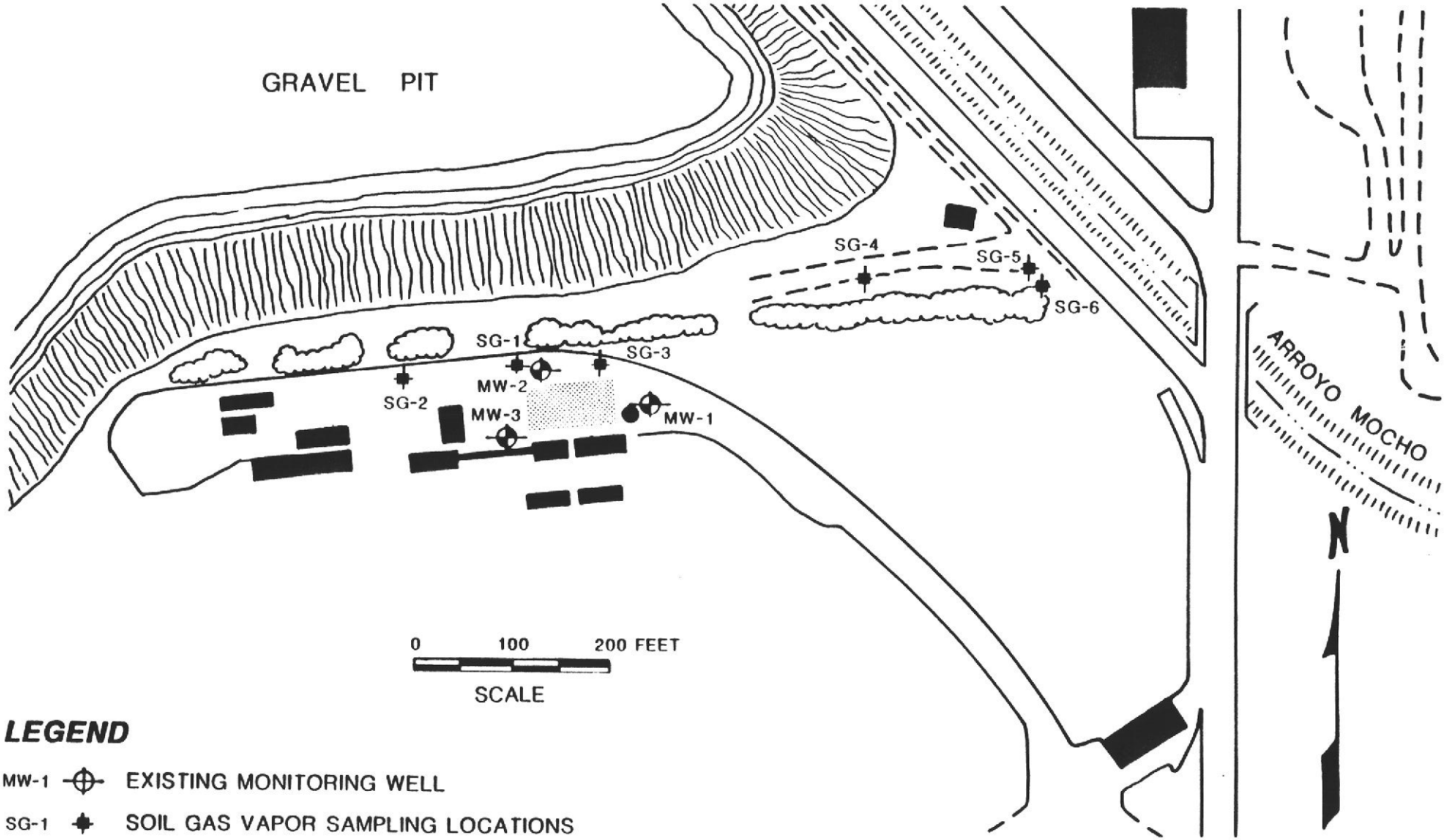
KLEINFELDER

PROJECT NO. 10-1682-03

WELL LOCATION MAP

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PLATE 4



LEGEND

MW-1 ⊕ EXISTING MONITORING WELL

SG-1 ✦ SOIL GAS VAPOR SAMPLING LOCATIONS

APPROXIMATE EXTENT OF TANK EXCAVATION

KLEINFELDER

PROJECT NO. 10-1682-03

SOIL GAS VAPOR SAMPLE LOCATIONS

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PLATE

5

APPENDIX A

WORKING COPY

MED-TOX ASSOCIATES, INC.

OCCUPATIONAL & ENVIRONMENTAL HEALTH SERVICES
3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

LABORATORY ANALYSIS REPORT

J.H. KLEINFELDER & ASSOC.
1901 OLYMPIC BLVD.
WALNUT CREEK, CA 94596
ATTN: ELAINE HANFORD

REPORT DATE: 10/12/87

DATE RECEIVED: 09/29/87

DATE ANALYZED: 10/02/87
10/06/87

MED-TOX JOB NO: 8709104

CLIENT ID: 10-1682-1

ANALYSIS OF: TWO WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS, AND POLYCHLORINATED BIPHENYLS

METHOD: EPA 8015, 8080

Sample Identification Client	Lab No.	Polychlorinated Biphenyls As Aroclor 1260 (ug/L)	Total Petroleum Hydrocarbons As Diesel (mg/L)
MW-1	01	22	510
MW-3	02	2.7	7.6
Detection Limit		0.5	5

Michael J. Daeger
Organic Group Leader

LR50-P30

Results reported verbally to Elaine Hanford 10/09/87.

MED-TOX ASSOCIATES, INC.
ANALYTICAL REQUEST/CHAIN OF CUSTODY FORM
(Complete Information on Opposite Side)

Date: 9/29/87
SAMPLER(S): Brian Rasmussen

CLIENT J.H. Kleinfelder
CLIENT JOB REF.: 10-1682-1
LAB PROJECT NO: _____
(lab use only)

CLIENT SAMPLE IDENTIFICATION	DATE	LAB NUMER (lab use only)	AIR VOLUME (Liters)	NO. CONT.	SAMPLE TYPE *	ANALYSES: TPH Diesel	ANALYSES: PCB's	COMMENTS/ INTERFERENCES
~~[illegible]~~	9/29/87	8709104-01A						
MW-1		-01B				X	X	
		-						
MW-3	9/29/87	-02A				X	X	
		-02B						

Relinquished by: (Signature) Brian Rasmussen	Date 9/29/87	Time 1700	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Dispatched by: (Signature)	Date	Time	Received for lab by: (Signature) Yvonne Kohn	Date 9-29-87	Time 5:03pm
Method of Shipment:			Lab Comments:		

SAMPLE TYPE (SPECIFY): (1) 37 mm 0.8 um MCEF;2) 25 mm 0.8 um MCEF; (3) 25 mm 0.4 um polycarb. filter; (4) PVC filter, ____ pore size _____; (5) Charcoal tube; (6) Silica gel tube (7) Water; (8) Soil; (9) Bulk Sample; (11) Other

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

WORKING COPY

LABORATORY ANALYSIS REPORT

J.H. KLEINFELDER & ASSOC.
1901 OLYMPIC BLVD.
WALNUT CREEK, CA 94596
ATTN: ELAINE HANFORD

REPORT DATE: 11/18/87

DATE SAMPLED: 10/28-29/87

DATE RECEIVED: 10/28/87

DATE ANALYZED: 11/07/87
11/11/87

MED-TOX JOB NO: 8710122

CLIENT PROJECT NO: 10-1682-03

ANALYSIS OF: THREE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS, AND POLYCHLORINATED BIPHENYLS

METHOD: EPA 8015 (EXTRACTION)

Sample Identification Client	Lab No.	Total Petroleum Hydrocarbons As Diesel (mg/L)
MW-3	01A	1,100
MW-1	02A	780
MW-2	03A	1,100
Detection Limit		50

Michael J. Jaeger (ML)
Michael J. Jaeger
Organic Group Leader

R8710122.1

KLEINFELDER AND ASSOCIATES

CLIENT ID: MW-3
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8710122-01A
MED-TOX JOB NO.: 8710122

DATE SAMPLED: 10/28/87
DATE RECEIVED: 10/28/87

DATE ANALYZED: 11/10/87
REPORT DATE: 11/18/87

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	24	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER AND ASSOCIATES

CLIENT ID: MW-1
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8710122-02A
MED-TOX JOB NO.: 8710122

DATE SAMPLED: 10/28/87
DATE RECEIVED: 10/28/87

DATE ANALYZED: 11/10/87
REPORT DATE: 11/18/87

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	22	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER AND ASSOCIATES

CLIENT ID: MW-2
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8710122-03A
MED-TOX JOB NO.: 8710122

DATE SAMPLED: 10/29/87
DATE RECEIVED: 10/28/87

DATE ANALYZED: 11/10/87
REPORT DATE: 11/18/87

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	14	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature) [redacted]

Phone: (415) 938-5610

SHIP TO:

MEDTOX

ATTENTION:

Phone No.

SHIPPING INFORMATION

Shipper

Address

Date Shipped

Shipment Service

Airbill No.

Cooler No.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[redacted]	JulianneStuder	10/28 1530
Relinquished by: (Signature)	Received by: (Signature)	Date Time
Relinquished by: (Signature)	Received by: (Signature)	Date Time
Relinquished by: (Signature)	Receive for laboratory by*: (Signature)	Date Time

* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
MW-3-B	10-1682-03	10-28-87	TPH as diesel	
MW-3A			[redacted] TPH as diesel	
MW-3[redacted]			[redacted] PCB	
MW-1-B			TPH as diesel	
MW-1A			[redacted] TPH as diesel	
MW-1[redacted]			[redacted] PCB	

Results To: Elaine Hanford
KLEINFELDER
1901 Olympic Blvd. Walnut Creek

LAB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

(1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated
(4)
5)

White - Sampler Canary - J. H. Kleinfelder & Associates Pink - Lab Courtesy Copy

JHK&A Form M-60

CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature) Myra Alfaro

Phone: (415) 938-5610

SHIP TO: MEDTOX

ATTENTION:

Phone No.

SHIPPING INFORMATION

Shipper

Address

Date Shipped

Shipment Service

Airbill No.

Cooler No.

Relinquished by: (Signature)	Received by: (Signature)	Date Time
Myra Alfaro		
Relinquished by: (Signature)	Received by: (Signature)	Date Time
Relinquished by: (Signature)	Received by: (Signature)	Date Time
Relinquished by: (Signature)	Receive for laboratory by: (Signature) Yvonne St John	Date Time 10/29/97 11:00

* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
MW-2-A	10-1682-03	10-29-97	TPH as diesel	Good
MW-2-B			[redacted] TPH as diesel	
MW-2-C			[redacted] PCB	

LAB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
(3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated
4)
5)

White - Sampler

Canary - J. H. Kleinfelder & Associates

Pink - Lab Courtesy Copy

JHK&A Form 31-60

File Copy

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

LABORATORY ANALYSIS REPORT

J.H. KLEINFELDER & ASSOC.
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596

MED-TOX JOB NO: 8711120

CLIENT PROJECT NO: 10-1646-1

REPORT DATE: 12/14/87

DATE SAMPLED: 11/30/87

DATE RECEIVED: 11/30/87

DATE ANALYZED: 12/2-7/87

ATTN: ELAINE HANFORD

ANALYSIS OF: THREE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS, AND POLYCHLORINATED BIPHENYLS

METHOD: EPA 8015 (EXTRACTION)

Sample Identification Client	Lab No.	Total Petroleum Hydrocarbons As Diesel (mg/L)
MW-1	01A	1,800
MW-2	02A	1,100
MW-3	03A	340
Detection Limit		50

Michael J. Jaeger
Organic Group Leader

R8711120.1

KLEINFELDER AND ASSOCIATES

CLIENT ID: MW-1
CLIENT JOB NO.: 10-1646-1

MED-TOX LAB NO.: 8711120-01C
MED-TOX JOB NO.: 8711120

DATE SAMPLED: 11/30/87
DATE RECEIVED: 11/30/87

DATE ANALYZED: 12/02/87
REPORT DATE: 12/14/87

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	56	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER AND ASSOCIATES

CLIENT ID: MW-2
CLIENT JOB NO.: 10-1646-1

DATE SAMPLED: 11/30/87
DATE RECEIVED: 11/30/87

MED-TOX LAB NO.: 8711120-02C
MED-TOX JOB NO.: 8711120

DATE ANALYZED: 12/02/87
REPORT DATE: 12/14/87

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	33	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER AND ASSOCIATES

CLIENT ID: MW-3
CLIENT JOB NO.: 10-1646-1

MED-TOX LAB NO.: 8711120-03C
MED-TOX JOB NO.: 8711120

DATE SAMPLED: 11/30/87
DATE RECEIVED: 11/30/87

DATE ANALYZED: 12/02/87
REPORT DATE: 12/14/87

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	62	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature) Bruce Ramsey

Phone: 415-938-5610

SHIP TO:

Med-Tox

ATTENTION:

Phone No.

SHIPPING INFORMATION

Shipper J. H. Kleinfelder

Address Walnut Creek

Date Shipped 11/30/87

Shipment Service

Airbill No.

Cooler No.

Att. Elaine

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Bruce Ramsey		
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received for laboratory by*: (Signature)	Date/Time
	Michele Martinez	1:30 pm

* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
MW-1	10-1646-1	11/30/87	T.P.H. - Deisel	
MW-2			PCB's	
MW-3	"	"		

AB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

(1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated
(4) Standard Turnaround
5)

White - Sampler Canary - J. H. Kleinfelder & Associates Pink - Lab Courtesy Copy

JHK&A Form M-60

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

WORKING COPY

LABORATORY ANALYSIS REPORT

J.H. KLEINFELDER & ASSOC.
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596
ATTN: ELAINE HANFORD

REPORT DATE: 01/27/88

DATE SAMPLED: 12/21/87

DATE RECEIVED: 12/21/87

DATE ANALYZED: 01/05/88

MED-TOX JOB NO: 8712115

CLIENT PROJECT NO: 10-1646-2

ANALYSIS OF: THREE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AND POLYCHLORINATED BIPHENYLS

METHOD: EPA 8015 (EXTRACTION)

Sample Identification Client	Lab No.	Total Petroleum Hydrocarbons As Diesel (mg/L)
MW-1	01A	55
MW-2	02A	27
MW-3	03A	46
Detection Limit		20

Michael J. Jaeger
Organic Group Leader

R8712115

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-1
CLIENT JOB NO.: 10-1646-2

MED-TOX LAB NO.: 8712115-01A
MED-TOX JOB NO.: 8712115

DATE SAMPLED: 12/21/87
DATE RECEIVED: 12/21/87

DATE ANALYZED: 01/05/88
REPORT DATE: 01/27/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	1	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-2
CLIENT JOB NO.: 10-1646-2

MED-TOX LAB NO.: 8712115-02A
MED-TOX JOB NO.: 8712115

DATE SAMPLED: 12/21/87
DATE RECEIVED: 12/21/87

DATE ANALYZED: 01/05/88
REPORT DATE: 01/27/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	2	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-3
CLIENT JOB NO.: 10-1646-2

MED-TOX LAB NO.: 8712115-03A
MED-TOX JOB NO.: 8712115

DATE SAMPLED: 12/21/87
DATE RECEIVED: 12/21/87

DATE ANALYZED: 01/05/88
REPORT DATE: 01/27/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	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	2	0.5

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature) Ben Ramm

Phone: 415 938 5610

SHIP TO: Med Tox

ATTENTION:

Phone No.

SHIPPING INFORMATION

Shipper: Kleinfelder

Address: Walnut Creek

Date Shipped: 12/21/87

Shipment Service: Hand

Airbill No.

Cooler No.: AH - Elaine H.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Ben Ramm		
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Receive for laboratory by*: (Signature) Elaine Kleber	Date/Time 12/21/87 1400

* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
MW-1	12:1646:2	12/21/87	-TPH-Diesel -PCB	Good
MW-2	↓	↓	↓	↓
MW-3				

LAB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated
4) Standard Turnaround
5)

White - Sampler

Canary - J. H. Kleinfelder & Associates

Pink - Lab Courtesy Copy

JHK&A Form M-60

FILE COPY

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES
3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

LABORATORY ANALYSIS REPORT

J.H. KLEINFELDER & ASSOC.
2121 N. CALIFORNIA BLVD.
SUITE 570
WALNUT CREEK, CA 94596
ATTN: ELAINE HANFORD

REPORT DATE: 02/11/88
DATE SAMPLED: 01/25/88
DATE RECEIVED: 01/25/88
DATE ANALYZED: 02/04/88

MED-TOX JOB NO: 8801110

CLIENT PROJECT NO: 10-1682-03

ANALYSIS OF: THREE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AND POLYCHLORINATED BIPHENYLS

METHOD: EPA 8015 (EXTRACTION)

Sample Identification Client	Lab No.	Total Petroleum Hydrocarbons As Diesel (mg/L)
MW-1	01A	96
MW-2	02A	150
MW-3	03A	27
Detection Limit		20

Michael J. Jaeger
Organic Group Leader

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-1
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8801110-01A
MED-TOX JOB NO.: 8801110

DATE SAMPLED: 01/25/88
DATE RECEIVED: 01/25/88

DATE ANALYZED: 01/28/88
REPORT DATE: 02/11/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

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

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-2
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8801110-02A
MED-TOX JOB NO.: 8801110

DATE SAMPLED: 01/25/88
DATE RECEIVED: 01/25/88

DATE ANALYZED: 01/28/88
REPORT DATE: 02/11/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

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

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-3
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8801110-03A
MED-TOX JOB NO.: 8801110

DATE SAMPLED: 01/25/88
DATE RECEIVED: 01/25/88

DATE ANALYZED: 01/28/88
REPORT DATE: 02/11/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

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

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature) Brian Rem

Phone: 415-938-5610

SHIP TO: Med-Tox

ATTENTION:

Phone No.

SHIPPING INFORMATION

Shipper Kleinfelder

Address Walnut Creek

Date Shipped 1/25/88

Shipment Service

Airbill No.

Cooler No. AH. E.M.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Receive for laboratory by: (Signature) J Lynn Helton	Date/Time 1/25/88 1521

* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
MW-1	10-1682-03	1/25/88	- TPH-Diesel - PCB's	
MW-2				
MW-3				

* Had to unburr

LAB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

(1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
(2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
(3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated

Standard Turnaround

Yuk!! Sorry

White - Sampler Canary - J. H. Kleinfelder & Associates Pink - Lab Courtesy Copy

JHK&A Form M-60

FILE COPY

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES
3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

LABORATORY ANALYSIS REPORT

J.H. KLEINFELDER & ASSOC.
2121 N. CALIFORNIA BLVD.
WALNUT CREEK, CA 94596
ATTN: ELAINE HANFORD

REPORT DATE: 03/16/88
DATE SAMPLED: 02/26/88
DATE RECEIVED: 02/26/88
DATE ANALYZED: 02/29/88

MED-TOX JOB NO: 8802149

CLIENT ID: 10-1682-03

ANALYSIS OF: THREE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AND POLYCHLORINATED BIPHENYLS

METHOD: EPA 8015 (EXTRACTION)

Sample Identification Client	Lab No.	Total Petroleum Hydrocarbons As Diesel (mg/L)
MW-1	01A	120
MW-2	02A	15
MW-3	03A	6
Detection Limit		5

Michael J. Jaeger, Manager
Organic Laboratory

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-1
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8802149-01B
MED-TOX JOB NO.: 8802149

DATE SAMPLED: 02/26/88
DATE RECEIVED: 02/26/88

DATE ANALYZED: 03/10/88
REPORT DATE: 03/16/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	2.0
Aroclor 1221	11104-28-2	ND	2.0
Aroclor 1232	11141-16-5	ND	2.0
Aroclor 1242	53469-21-9	ND	2.0
Aroclor 1248	12672-29-6	ND	2.0
Aroclor 1254	11097-69-1	ND	2.0
Aroclor 1260	11096-82-5	ND	2.0

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-2
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8802149-02C
MED-TOX JOB NO.: 8802149

DATE SAMPLED: 02/26/88
DATE RECEIVED: 02/26/88

DATE ANALYZED: 03/10/88
REPORT DATE: 03/16/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	2.0
Aroclor 1221	11104-28-2	ND	2.0
Aroclor 1232	11141-16-5	ND	2.0
Aroclor 1242	53469-21-9	ND	2.0
Aroclor 1248	12672-29-6	ND	2.0
Aroclor 1254	11097-69-1	ND	2.0
Aroclor 1260	11096-82-5	ND	2.0

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

J.H. Kleinfelder & Assoc.

CLIENT ID: MW-3
CLIENT JOB NO.: 10-1682-03

MED-TOX LAB NO.: 8802149-03C
MED-TOX JOB NO.: 8802149

DATE SAMPLED: 02/26/88
DATE RECEIVED: 02/26/88

DATE ANALYZED: 03/10/88
REPORT DATE: 03/16/88

EPA METHOD 608

POLYCHLORINATED BIPHENYLS

AROCLOR	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Aroclor 1016	12674-11-2	ND	2.0
Aroclor 1221	11104-28-2	ND	2.0
Aroclor 1232	11141-16-5	ND	2.0
Aroclor 1242	53469-21-9	ND	2.0
Aroclor 1248	12672-29-6	ND	2.0
Aroclor 1254	11097-69-1	ND	2.0
Aroclor 1260	11096-82-5	ND	2.0

NOTES AND DEFINITIONS FOR THIS REPORT:
ND = Not Detected
Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

MED-TOX ASSOCIATES, INC.
ANALYTICAL REQUEST/CHAIN OF CUSTODY FORM
(Complete Information on Opposite Side)

Pab. ___

Date: 2/26/88
SAMPLER(S): Brian Rasmussen

CLIENT Kleinfelder
CLIENT JOB REF.: 10-1683-02
LAB PROJECT NO: ___
(lab use only)

CLIENT SAMPLE IDENTIFICATION	DATE	LAB NUMER (lab use only)	AIR VOLUME (Liters)	NO. CONT.	SAMPLE TYPE *	ANALYSES: TPH Diesel	ANALYSES: PCB	COMMENTS/ INTERFERENCES
MW-1	2/26	8802149-01A-B	WATER	3		X	X	
MW-2	"	02A-C		3		X	X	
MW-3	"	03A-C		3		X	X	

Relinquished by: (Signature) Brian Rasmussen	Date 2/26	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Dispatched by: (Signature)	Date	Time	Received for lab by: (Signature) Dionne Nelson	2-26-88	1528
Method of Shipment:			Lab Comments:		

*SAMPLE TYPE (SPECIFY): (1) 37 mm 0.8 um MCEF;2) 25 mm 0.8 um MCEF; (3) 25 mm 0.4 um polycarb. filter; (4) PVC filter, diam. ___ pore size ___; (5) Charcoal tube; (6) Silica gel tube (7) Water; (8) Soil; (9) Bulk Sample; (11) Other

ANATEC LABORATORIES INC.

435 Tesconi Circle
Santa Rosa, CA 95401
707-526-7200
Fax 707-526-9623

Stephen E. Fox
JH Kleinfelder & Associates
1901 Olympic Blvd, Ste 300
Walnut Creek, CA 94596

September 24, 1987
ANATEC Log No. 1257A (1-9)
Series No: 300/013
Client Ref: Job #10-1682-02

Subject: Analysis of Nine Soil Samples Identified as the "Rhoades and Jameson Gravel Pit", Pleasanton, CA Received September 20, 1987.

Dear Mr. Fox:

Analysis of the samples referenced above has been completed. This report is written to confirm results transmitted verbally on September 20, 1987. Samples were analyzed on-site with a mobile laboratory.

Additional samples were collected and returned to ANATEC's Santa Rosa facility for further testing.

Samples were prepared for extractable hydrocarbons measurements by thorough mixing and subsequent extraction with methylene chloride; extraction, aided by sonication, was performed three successive times for each soil sample. Extracts were then combined, dried over sodium sulfate and concentrated in Kuderna-Danish apparatus. Extracts were then analyzed by packed-column gas chromatography with flame ionization detection. Preparation and analysis of samples was accompanied by similar treatment of a method blank, a sample replicate, and a diesel-fortified sample. Response of the chromatographic system to calibration standards prepared with diesel fuel was compared with system response to samples for purposes of qualitative and quantitative interpretation.

Details of the analytical methodology are consistent with requirements specified in "Guidelines for Addressing Fuel Leaks," Regional Water Quality Control Board, San Francisco Bay Region, revised 1986; the preparation procedures used are described in detail in "Sonication Extraction," Method 3550, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 2nd edition, revised 1984.

Results of on-site analyses are summarized in Table 1; results of other analyses will be transmitted under separate cover. Attached is a copy of the samle custody record. Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

marco Porter/for
Kim L. Hansard
Field Chemist

Approved by:

Greg Anderson, Director
Analytical Laboratories

Encl: Sample Custody Document

TABLE 1. ANALYTICAL RESULTS FOR NINE SOIL SAMPLES RECEIVED AT THE RHOADES AND JAMESON GRAVEL PIT, PLEASANTON, CA SEPTEMBER 20, 1987.

Lab No.	Descriptor	Extractable Petroleum Hydrocarbons, as Diesel (mg/Kg)[a]
1257-17	S-1A	33,000
1257-18	S-2A	120
1257-22	S-3A	<10
1257-21	S-4A	4,900
1257-23	S-5A	<10
1257-20	S-6A	8,800
1257-19	S-7A	<10
1257-24	S-10A	<10
1257-25	S-12A	<10

[a]mg/Kg--Data are expressed as milligrams analyte per kilogram sample, as-received basis.

TABLE 1. ANALYTICAL RESULTS FOR 13 SOIL SAMPLES IDENTIFIED AS "RHOADES AND JAMESON GRAVEL PIT, PLEASANTON, CA" RECEIVED SEPTEMBER 21, 1987

ANATEC Lab No.	Sample I.D.			Results (mg/Kg)[a] Extractable Petroleum Hydrocarbons, as Diesel	Polychlorinated biphenyls
1257-1	S-1B	9/20/87	SF	29,000	0.51[b]
1257-2	S-2B	9/20/87	SF	2,000	<0.1
1257-3	S-3B	9/20/87	SF	26	<0.1
1257-4	S-4B	9/20/87	SF	1,500	<0.1
1257-5	S-5B	9/20/87	SF	<10	<0.1
1257-6	S-6B	9/20/87	SF	2,300	<0.1
1257-7	S-7B	9/20/87	SF	<10	<0.1
1257-8	S-8B	9/20/87	SF	150,000	<0.1
1257-9	S-9A	9/20/87	SF	<10	<0.1
1257-10	S-10B	9/20/87	SF	<10	<0.1
1257-11	S-11B	9/20/87	SF	<10	<0.1
1257-12	S-12B	9/20/87	SF	<10	<0.1
1257-13[c]	S-13A	9/20/87	SF	9,000	<0.1

[a]mg/Kg--Data are expressed as milligrams analyte per kilogram sample, as-received basis.
[b]Quantitated as Aroclor 1260.
[c]This sample was a composite of 4 samples: "S-13A, S-13B, S-13C, S-13D."

CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature) Steph E. Fox

Phone: 415-838-7082

SHIP TO:
Anatec
Santa Rosa

ATTENTION: Greg Anderson

Phone No. 707-526-7200

SHIPPING INFORMATION

Shipper J.H Kleinfelder

Address W. Creek CA

Date Shipped 9-20-87

Shipment Service Hand deliv.

Airbill No.

Cooler No.

Relinquished by: (Signature)	Received by: (Signature)	Date Time
Steph E. Fox	JKF	9/21/87 1700
Relinquished by: (Signature)	Received by: (Signature)	Date Time
Relinquished by: (Signature)	Received by: (Signature)	Date Time
Relinquished by: (Signature)	Receive for laboratory by*: (Signature)	Date Time

* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
S-1 B	ID-1682-02	9-20-87	- TPH as diesel ← for all	cool
S-2 B			- PCB's ← all	
S-3 B				
S-4 B				
S-5 B				
S-6 B				
S-7B				
S-8 B				
S-9A				
S-10 B				
S-11 B			2 week turnaround for all samples	
S-12 B				
S-13 A, B, C, D			←	Composit into 1 sample

LAB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated
4) Samples S-8B, S-11A and S-13A-D are not duplicates that were run on 9-20-87. Please run these also as S-9A (S-9A)

White - Sampler Canary - J. H. Kleinfelder & Associates Pink - Lab Courtesy Copy

JHK&A Form M-60

ANATEC LABORATORIES INC.

435 Tesconi Circle
Santa Rosa, CA 95401
707-526-7200
Fax 707-526-9623

Stephen E. Fox
JH Kleinfelder & Associates
1901 Olympic Blvd., Ste 300
Walnut Creek, CA 94596

October 21, 1987
ANATEC Log No: 1257B (1-16)
Series No: 300/013B
Client Ref: Job #10-1682-02

Subject: Analysis of 13 Soil Samples Identified as "Rhoades and Jameson Gravel Pit," Pleasanton, CA Received September 21, 1987.

Dear Mr. Fox:

Analysis of the samples referenced above has been completed. This report is written in confirmation of results telefaxed to you on October 15, 1987.

Samples were received under documented chain-of-custody. On receipt, sample custody was transferred to an ANATEC field chemist, who immediately placed them in refrigerated storage for transport to the laboratory.

On receipt at the laboratory, sample custody was transferred to ANATEC sample control personnel who subsequently documented receipt and condition of the samples and placed them in secured storage at 4 ^{o}C until analysis commenced.

Samples were prepared for extractable hydrocarbons measurements by thorough mixing and subsequent extraction with methylene chloride; extraction, aided by sonication, was performed three successive times for each sample. Extracts were then combined, dried over sodium sulfate and concentrated in Kuderna-Danish apparatus. Extracts were analyzed by capillary-column gas chromatography with flame ionization detection. Preparation and analysis of samples was accompanied by similar treatment of a sample replicate, method blank and a diesel-fortified sample. Response of the chromatographic system to calibration standards prepared with diesel fuel was compared with system response to samples for purposes of qualitative and quantitative interpretation.

Details of the analytical methodology are consistent with requirements specified in Method "II" ("Total Fuel Hydrocarbons, Medium-to-High Boiling Point Hydrocarbons,") in "Guidelines for Addressing Fuel Leaks," Regional Water Quality Control Board, San Francisco Bay Region, revised 1986; the preparation procedure used is described in detail in "Sonication Extraction," Method 3550 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 2nd edition, revised 1984.

In preparation for polychlorinated biphenyls (PCBs) measurements, a portion of each sample was extracted three successive times with methylene chloride and ultrasonic agitation. The extracts were combined and reduced in volume by evaporation of solvent. Extracts were then passed through a column of partially-deactivated Florisil to remove method interferences and subsequently analyzed by gas chromatography with electron-capture detection in accord with Method 8080, U.S. EPA SW-846, 3rd edition, revised 1986. Qualitative and quantitative interpretation of sample chromatograms were based on analyses of analytical-grade standards.

Analysis of samples was accompanied by various quality control procedures. These included preparation and analysis of method blanks and standards, and replicate and analyte-fortified ("spiked") sample portions. Results of quality control procedures are available on request but are not included in this report.

Analytical results are presented in Table 1. Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

John Hembrow-Beach
Project Chemist

Approved by:

William G. Kotz
Project Manager

/hs

TABLE 1. ANALYTICAL RESULTS FOR 13 SOIL SAMPLES IDENTIFIED AS "RHOADES AND JAMESON GRAVEL PIT, PLEASANTON, CA" RECEIVED SEPTEMBER 21, 1987

ANATEC Lab No.	Sample I.D.			Results (mg/Kg)[a] Extractable Petroleum Hydrocarbons, as Diesel	Polychlorinated biphenyls
1257-1	S-1B	9/20/87	SF	29,000	0.51[b]
1257-2	S-2B	9/20/87	SF	2,000	<0.1
1257-3	S-3B	9/20/87	SF	26	<0.1
1257-4	S-4B	9/20/87	SF	1,500	<0.1
1257-5	S-5B	9/20/87	SF	<10	<0.1
1257-6	S-6B	9/20/87	SF	2,300	<0.1
1257-7	S-7B	9/20/87	SF	<10	<0.1
1257-8	S-8B	9/20/87	SF	150,000	<0.1
1257-9	S-9A	9/20/87	SF	<10	<0.1
1257-10	S-10B	9/20/87	SF	<10	<0.1
1257-11	S-11B	9/20/87	SF	<10	<0.1
1257-12	S-12B	9/20/87	SF	<10	<0.1
1257-13[c]	S-13A	9/20/87	SF	9,000	<0.1

[a]mg/Kg--Data are expressed as milligrams analyte per kilogram sample, as-received basis.
[b]Quantitated as Aroclor 1260.
[c]This sample was a composite of 4 samples: "S-13A, S-13B, S-13C, S-13D."

APPENDIX B

KLEINFELDER

January 5, 1988
File: 10-1682-03

Mr. Greg Zentner
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, California 94607

SUBJECT: Recycling for Disposal of Hazardous Waste, Industrial Asphalt Facility, Pleasanton, California

Dear Mr. Zentner:

Kleinfelder is pleased to prepare this letter regarding recycling for disposal of hazardous waste at the Industrial Asphalt facility in Pleasanton, California.

In accordance with our letter to the California Regional Water Quality Control Board, dated December 2, 1987, we directed our client, Industrial Asphalt, to recycle the temporarily stockpiled backfill excavated during underground tank removal on September 20, 1987. In accordance with California Administrative Code, Titles 22 and 23, the contaminated backfill material was recycled onsite through the asphalt and batch plants at the Industrial Asphalt Facility.

Should you have any questions, please contact us.

Sincerely,

KLEINFELDER

Elaine J. Hanford, R.G.
Senior Project Manager

(603) Thomas E. Bailey, P.E.
Vice President/Engineering Manager

EJH:TEB:wh

cc: Mr. Dwight Beavers, Industrial Asphalt
Mr. Dennis Hunt, Industrial Asphalt
Mr. Rafat Shahid, Alameda County Department Environmental Health
Mr. Richard Mueller, Pleasanton Fire Department
Mr. Kenneth Theisen, CRWQCB
Mr. Howard Hatayama, Department of Health Services

(4)C88-012

FILE COPY

KLEINFELDER

December 2, 1987
File: 10-1682-03

Mr. Greg Zentner
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, California 94607

SUBJECT: Recycling for Disposal of Hazardous Waste
Industrial Asphalt Facility, Pleasanton, California

Dear Mr. Zentner:

Kleinfelder is pleased to prepare this letter regarding recycling for disposal of hazardous waste at the Industrial Asphalt facility in Pleasanton, California.

This letter is prepared in accordance with the following:

- Phone conversation with Mr. Kenneth Theisen, California Regional Water Quality Control Board (CRWQCB), on October 22, 1987
- Phone conversation with Mr. Howard Hatayama, Department of Health Services (DHS), on November 12, 1987
- Phone conversations with yourself (Mr. Greg Zentner), on October 20 and November 24, 1987
- Title 22, Division 4, Chapter 30, Article 12, Section 66796(3), regarding recyclable hazardous waste types, including used or unused petroleum products
- Title 23, Chapter 3, Subchapter 15, Article 2511 (h), regarding exemptions for recycling

BACKGROUND

In accordance with recommendations presented in our "Project Status Report: Environmental Engineering Services, Industrial Asphalt Facility, Pleasanton, California," dated September 4, 1987, and in accordance with "Guidelines for Addressing Fuel Leaks" issued by the California Regional Water Quality Control Board, San Francisco Bay Region, Kleinfelder directed removal of the remaining four asphalt tanks at the Industrial Asphalt Facility on September 20, 1987. Excavated backfill was temporarily stockpiled and contained onsite. Twelve closure samples were collected in the excavation. In addition, four samples of the stockpiled backfill were taken and composited on an equal weight basis.

(4)C87215

The samples were submitted to Anatec Laboratories, Inc., for analysis of total petroleum hydrocarbons as diesel using EPA Method 8015 and for polychlorinated biphenyls (PCB's) using EPA Method 8080. Copies of the laboratory reports and chain-of-custody forms are appended.

PREFERRED DISPOSAL METHOD

In accordance with California Administrative Code, Titles 22 and 23 as referenced above, and in accordance with the verbal concurrence received from representatives of the CRWQCB and DHS in telephone conversations referenced above, the preferred method for disposal of the hydrocarbon contaminated backfill is by onsite recycling through the asphalt plant at the Industrial Asphalt Facility. We will direct our client, Industrial Asphalt, immediately to proceed with recycling of the stockpile material.

Should you have any questions, please contact us.

Yours very truly,

KLEINFELDER

Elaine J. Hanford, R.G.
Project Manager

Thomas E. Bailey
Vice President/Engineering Manager

cc: Mr. Dwight Beavers, Industrial Asphalt
Mr. Dennis Hunt, Industrial Asphalt
Mr. Rafat Shahid, Alameda County Department Environmental Health
Mr. Richard Mueller, Pleasanton Fire Department
Mr. Kenneth Theisen, CRWQCB
Mr. Howard Hatayama, Department, Health Services

EJH:TEB:cd

(4)C87215