KLEINFELDER

91 MAR -6 AM 11: 07

5 March 1991
File: 10-1682-03/38

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

SUBJECT: Quarterly Report (November 1990 - January 1991), Industrial Asphalt, Pleasanton, California

Dear Mr. Hunt:

Kleinfelder, Inc., is pleased to submit this quarterly report for the fourth quarter of 1990 (November 1990 through January 1991) for the Industrial Asphalt site in Pleasanton, California (Plate 1). Quarterly progress reports were requested by the Alameda County Department of Health Services in their letter to you dated 13 November 1989.

INTRODUCTION

Thirteen monitoring wells and one extraction well (MW-13) are present onsite. Data collected from these wells were used to evaluate the contaminant plume. The monitoring wells along with the extraction well are shown on Plate 2. All wells are being monitored for depth to water and product thickness on a quarterly basis in accordance with recommendations in the Remedial Investigation Report dated 28 December 1990. Collected ground water samples have been analyzed for the target compounds including total petroleum hydrocarbons (TPH) as diesel/waste oil and polychlorinated biphenyls (PCBs). Additionally, each well was sampled and analyzed once for benzene, toluene, xylenes and ethylbenzene (BTXE).

Water samples were collected from onsite wells MW-1, MW-2 MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-13, MW-14, MW-15 and MW-16 during this sampling round. In addition to the onsite monitoring wells, an offsite water supply well located on the Jameson property was sampled. Refer to Plate 2 for the location all wells and the offsite well.

WATER LEVEL MONITORING DATA

Ground water surface (GWS) elevation data were collected prior to sampling each onsite ground water monitoring wells. These measurements are provided in Table 1. Generally, the ground water surface elevation has risen since the previous sampling round which occurred on 22 October 1990. This is likely due to the surface water recharge via Arroyo Mocho Creek by the Alameda County Flood District during the period from October 1990 through February 1991.

KLEINFELDER 2121 N. California Blvd., Suite 570, Walnut Creek, CA 94596 (415) 938-5610

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 to the north, which is a slight change in flow direction from the previous sampling round, which indicated a more northeasterly flow. One observation of note, is the apparent difference in GWS elevation measured in monitoring wells MW-2 and MW-14. The GWS measurements from these two wells indicated that the GWS elevation at MW-2 is nearly two feet lower then the GWS elevation at MW-14. Since these two wells are within twenty feet of each other, and MW-14 is screened at a slightly lower elevation then MW-2, there appears to be a slight upward gradient between the water zones which are screened in each monitoring well. Similar vertical gradient differences were observed in monitoring wells MW-3 and MW-16 (nearly 2.5 feet). For this reason, the most recently installed monitoring wells (MW-14, MW-15, and MW-16) and the extraction well (MW-13), all of which have screen sections at roughly the same elevation, have been excluded in the ground water flow map presented on Plate 3.

A measurement from staff gauge located in the adjacent settlement pond collected during this sampling round indicates that the water surface in the pond has decrease in elevation approximately one foot since the last sampling round in October 1990.

GROUND WATER CHEMISTRY MONITORING RESULTS

During the previous sampling round, as reported in the Remedial Investigation report dated 28 December 1990 (1990 R.I. Report), sheen was observed in well MW-1, MW-2, MW-3, MW-8, and MW-13. Sheen was observed in the following wells during this sampling round: MW-1, MW-2, MW-3, MW-8, MW-9, and MW-16. As previously noted in past reports, the increase in the number of monitoring wells which exhibit the presence of a sheen is probably due to the increase in the ground water surface elevation beneath the site between sampling rounds.

Analytical data are presented in Table 1. Complete analytical laboratory reports along with chain of custody records are provided in Appendix A.

Detectable concentrations of PCBs have been found in the ground water samples collected from monitoring wells MW-1, MW-2, MW-3 and MW-8. The highest concentration detected is in the sample collected from MW-1 at 9.6 micrograms per liter (ug/l). The remaining concentrations for the other three monitoring wells ranged between 1.2 ug/l (MW-8) to 7.2 ug/l (MW-3).

Analyses on the water samples collected from wells MW-1, MW-2, MW-3, MW-8, MW-10, MW-13, MW-14, MW-15, and MW-16 revealed the presence of dissolved hydrocarbons (TPH) as both diesel and waste oil in ground water at these sampling locations. TPH as "waste oil only" was detected in the samples collected from MW-4 and MW-9. However, the sample collected from MW-9 was quantified as motor oil which included hydrocarbons in the diesel range. The highest concentrations of TPH as both diesel and waste oil was detected in monitoring wells MW-1, MW-2, and MW-3 which is consistent with previous sampling rounds. The concentrations range between 63 milligrams per liter (mg/l) to 440 mg/l, with MW-3 exhibiting the highest concentrations. One additional note, analytical data indicated an increase in the concentrations of TPH as diesel and waste oil in the samples collected in MW-3 from 34 mg/l and 24 mg/l in the October 1990 sampling round to 440 mg/l and 320 mg/l, respectively. This is consistent with other sampling rounds in which the ground water surface elevation increased in elevation between sampling rounds. The ground water chemistry for the remaining wells appear to have remained relatively consistent between sampling rounds.

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In addition to the above analyses, the ground water sample collected from monitoring well MW-1 was screened for the presence of benzene, toluene, xylene, and ethylbenzene (BTXE). None of these compounds were detected in concentrations above the laboratory reporting limits.

An offsite water supply well located east of the site (Jameson Well) was sampled (Plate 2). The well was purged by opening a tap and running the water for about 30 minutes in order to empty the surge tank. Approximately 300 gallons of water were purged prior to collecting a sample. The ground water samples were analyzed for the same constituents as the onsite monitoring well MW-1. None of the target compounds were detected in concentrations above their respective laboratory reporting limits.

In summary, based on the available data, the ground water surface elevation beneath the site is higher than the previous sampling round and ground water flow is to the north. The ground water chemistry has remained, for the most part, consistent between sampling rounds, except for monitoring well MW-3. The ground water samples collected from this monitoring well exhibited much higher concentrations of the target compounds. The ground water samples collected from the offsite water production well (Jameson well) did not exhibit concentrations of the target chemical above the laboratory reporting limits for each of the compounds requested.

RI ACTIVITIES

At the direction of Industrial Asphalt and under the observation of a Kleinfelder professional, an area adjacent to the north side of the 30,000 gallon asphalt tank was excavated on 2 ~~January~~ Feb. 1991. The area of excavation is indicated on Plate 4. The intent of the excavation was to remove additional affected soil not removed during the 14 July 1990 excavation activities (refer to 1990 R.I. Report). Two closure soil samples were collected and analyzed. One sample was collected on the west end of the excavation (sample I.D. 53248) at a depth of approximately 19 feet. The second soil sample was collected on the east end of the excavation (sample I.D. 53247) at a depth of approximately 20 feet, which is the maximum depth of the excavation. Each of the samples were analyzed for the presences of TPH as diesel and waste oil as well as PCBs using the analytical methods reported on the laboratory analysis reports (Appendix A). None of these compounds were detected in concentrations above their respective laboratory reporting limits. The laboratory reports along with the chain of custody record are included in Appendix A.

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.

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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.

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

Sincerely,

KLEINFELDER, INC.

Jeffrey Friedman
Staff Geologist

Krzysztof (Krys) S. Jesionek,
Project Manager

Lloyd C. Venburg, R.G.
Senior Project Manager

JF:KSJ:LCV:dwl

cc: Dwight Beavers - Industrial Asphalt
Gil Wistar - Alameda County Department of Environmental Services
Rico Duazo - California Regional Water Quality Control Board
Jerry Killingstad - Alameda County Flood Control and Water Conservation District

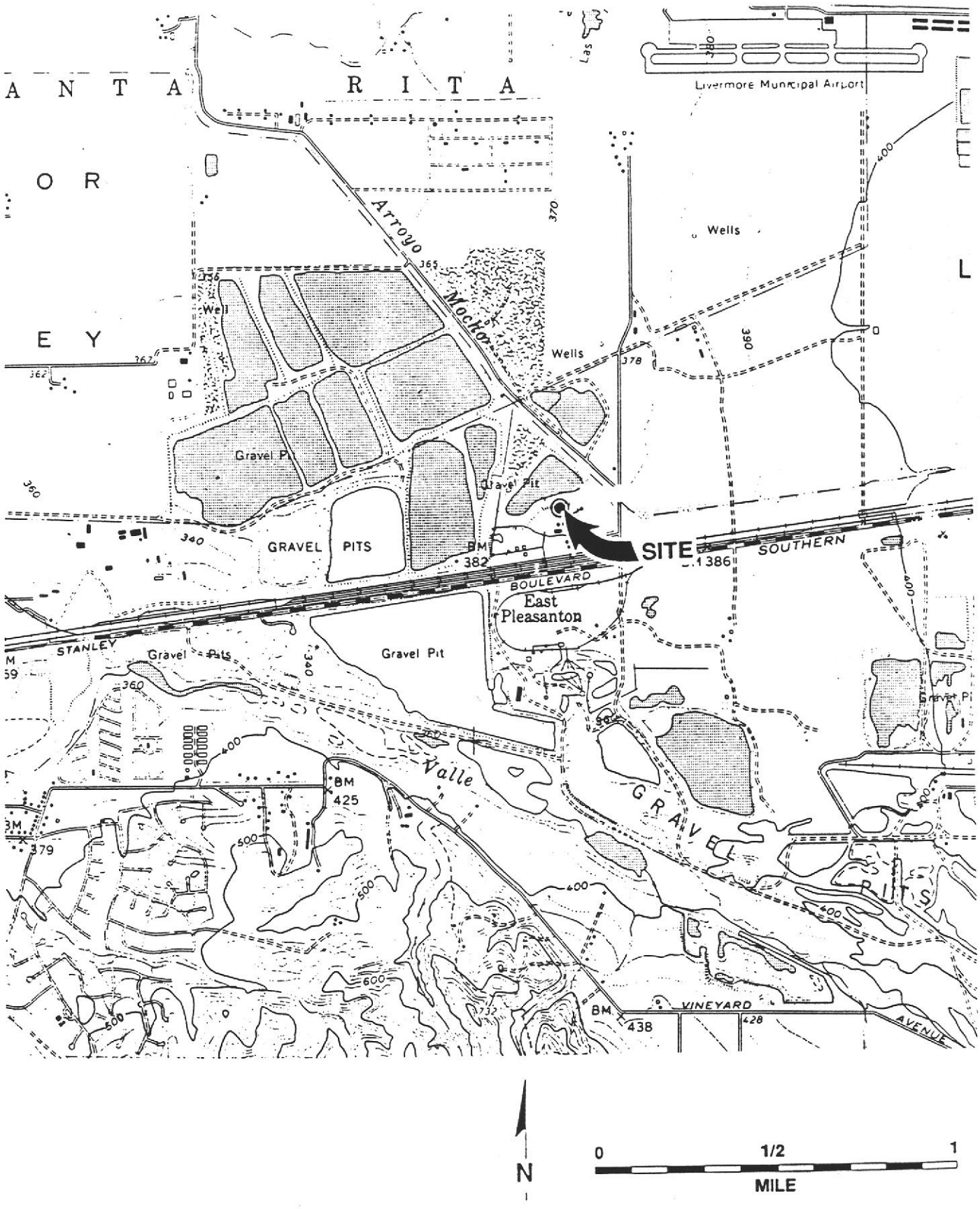
Table 1
MONITORING PARAMETERS (JANUARY 1991)
INDUSTRIAL ASPHALT

Monitoring Well	Total Depth (feet)	Depth to Water[1] (feet)	Ground Water Elevation[2] (feet)	Product Thickness (feet)	TPH as Diesel[3] (mg/l)	TPH as Waste Oil[4] (mg/l)	PCBs µg/l[5]	BTXE µg/l[10]
MW-1	88	71.76	307.65	SHEEN	110	63	9.6	ND[11]
MW-2	90	73.41	306.39	SHEEN	200	140	5.8	NT
MW-3	90	71.55	306.99	SHEEN	440	320	7.3	NT
MW-4	95	67.03	309.23	NE	ND	0.5	ND	NT
MW-5	110	70.94	311.61	NE	ND	ND	ND	NT
MW-6	109	67.75	311.40	NE	ND	ND	ND	NT
MW-7	109	68.08	310.86	NE	ND	ND	ND	NT
MW-8	109	71.22	307.34	SHEEN	12	12	1.2	NT
MW-9	108	70.45	306.95	SHEEN	ND	2.4 [12]	ND	NT
MW-10	111	69.55	308.49	NE	0.1	0.3	ND	NT
MW-11[8]	NA	NA	NA	NA	NA	NA	NA	NA
MW-13[9]	116	72.00	308.21	NE	0.5	0.2	ND	NT
MW-14	114.5	71.75	308.34	NE	0.3	0.5	ND	NT
MW-15	117	69.65	308.47	NE	0.5	0.6	ND	NT
MW-16	110	70.20	309.45	SHEEN	0.3	0.4	ND	NT
14A2	UNK	UNK	UNK	UNK	ND	ND	ND	ND
SG[13]	NA	1[6]	299[7]	NA	NA	NA	NA	NA

NOTES FOR TABLE:

(1) Below top of casing
(2) Feet above mean sea level (USGS Datum)
(3) Laboratory detection limits - 0.05 mg/l
(4) Laboratory detection limit - 0.1 mg/l
(5) Laboratory detection limit - 0.5 µg/l
(6) Reading on the staff gage
(7) Surface water elevation in the pit
(8) Well abandoned on 8 August 1990
(9) Extraction well
(10) Laboratory detection limit - 0.3 µg/l
(11) Laboratory detection limit - 6 µg/l (diluted sample)
(12) Quantitated as motor oil but includes hydrocarbons in the diesel range
(13) Jameson Well

BTXE Benzene, Toluene, Xylenes, Ethylbenzene
TPH Total Petroleum Hydrocarbons
PCBs Polychlorinated Biphenyls (Aroclor 1260)
NE Not Encountered
ND Not Detected at or above laboratory detection limits
NA Not Applicable
SG Staff Gage
NC Not Accessible
NT Not Tested
UNK Unknown



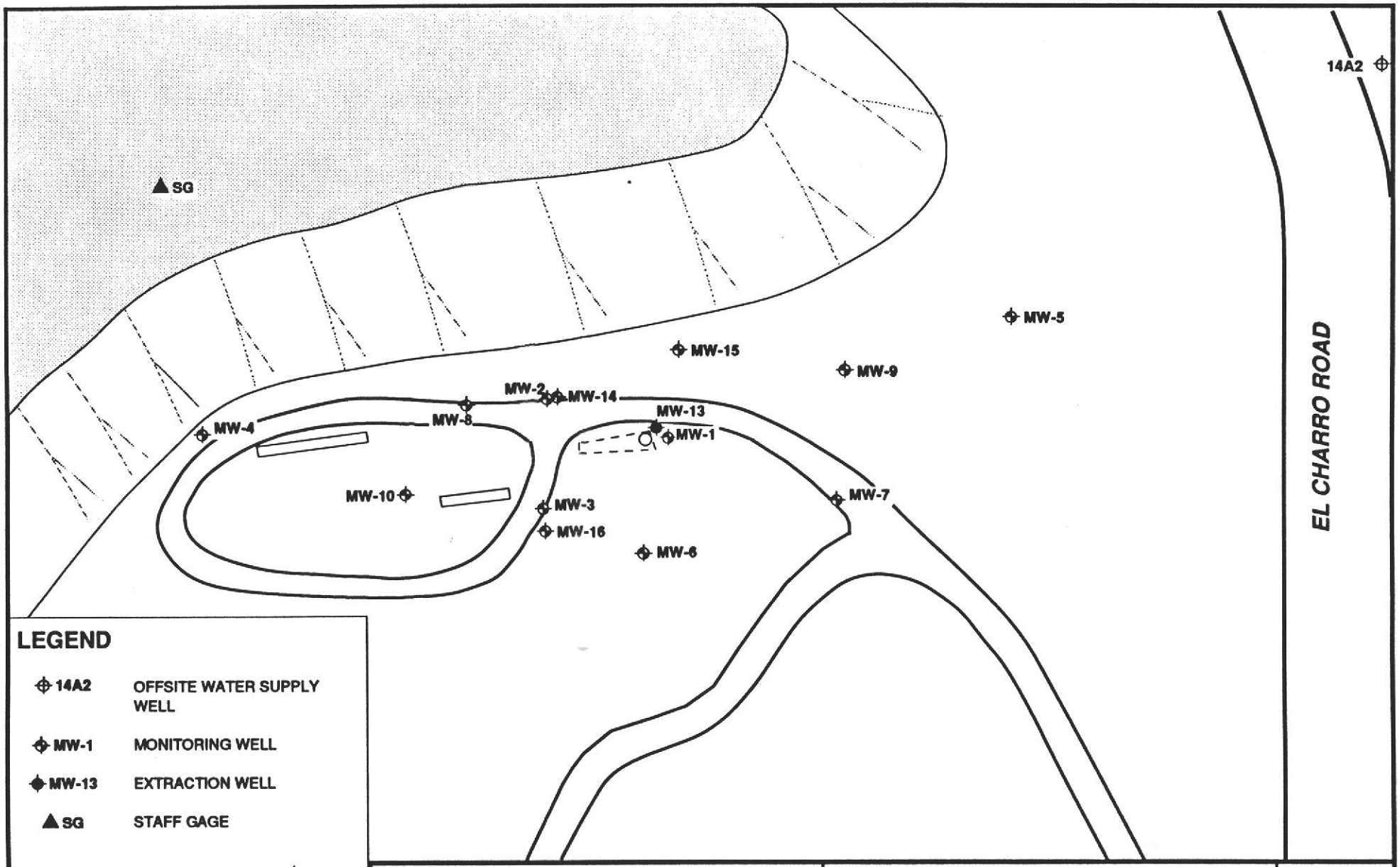
KLEINFELDER

PROJECT NO. 10-1682-03

SITE LOCATION MAP

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PLATE
1



LEGEND

14A2	OFFSITE WATER SUPPLY WELL
MW-1	MONITORING WELL
MW-13	EXTRACTION WELL
SG	STAFF GAGE

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: 3-1-91

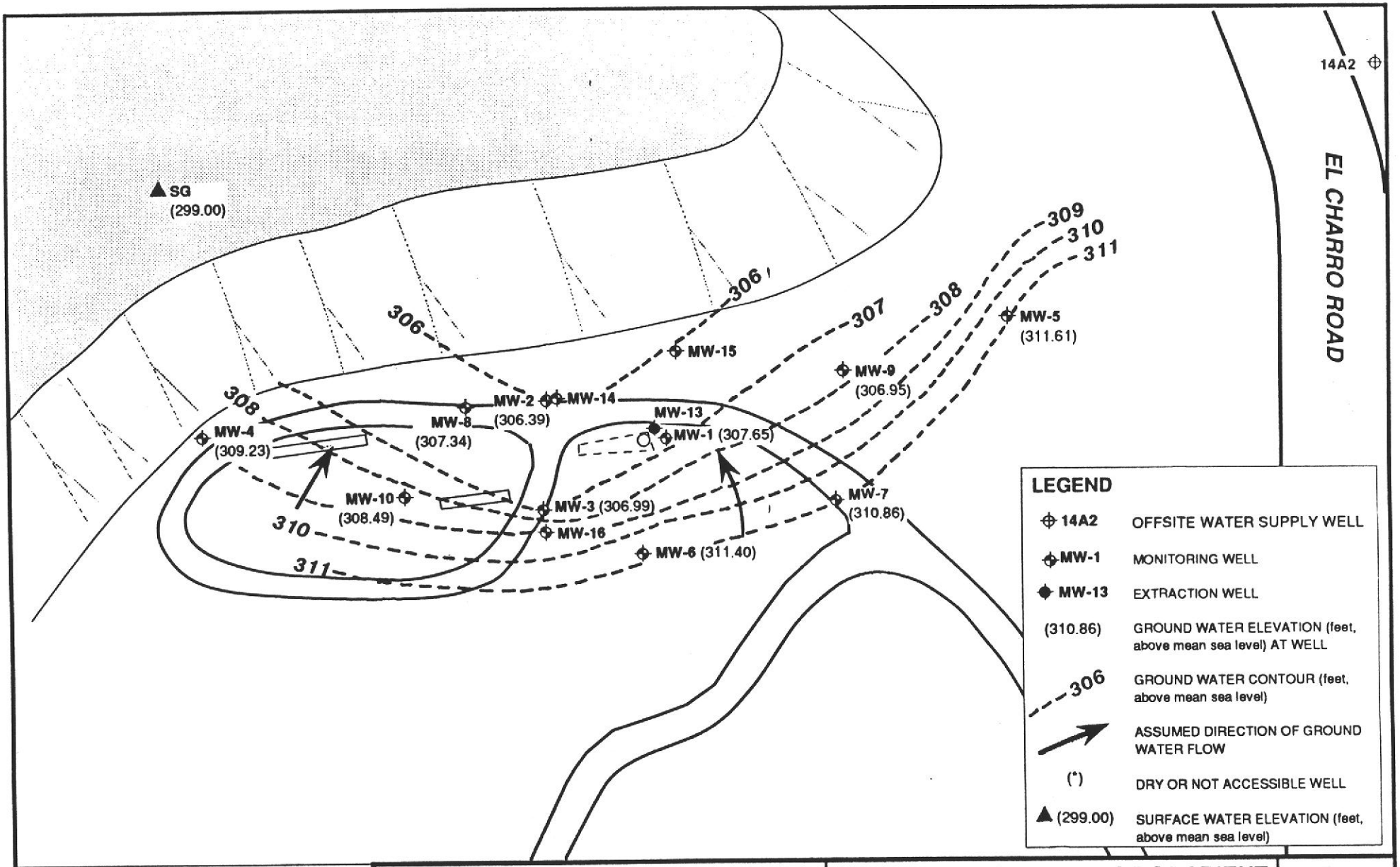
CHECKED BY: K. Jesionek DATE: 3-1-91

SOIL BORING/MONITORING WELL LOCATION MAP (1990)

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: 3-5-91

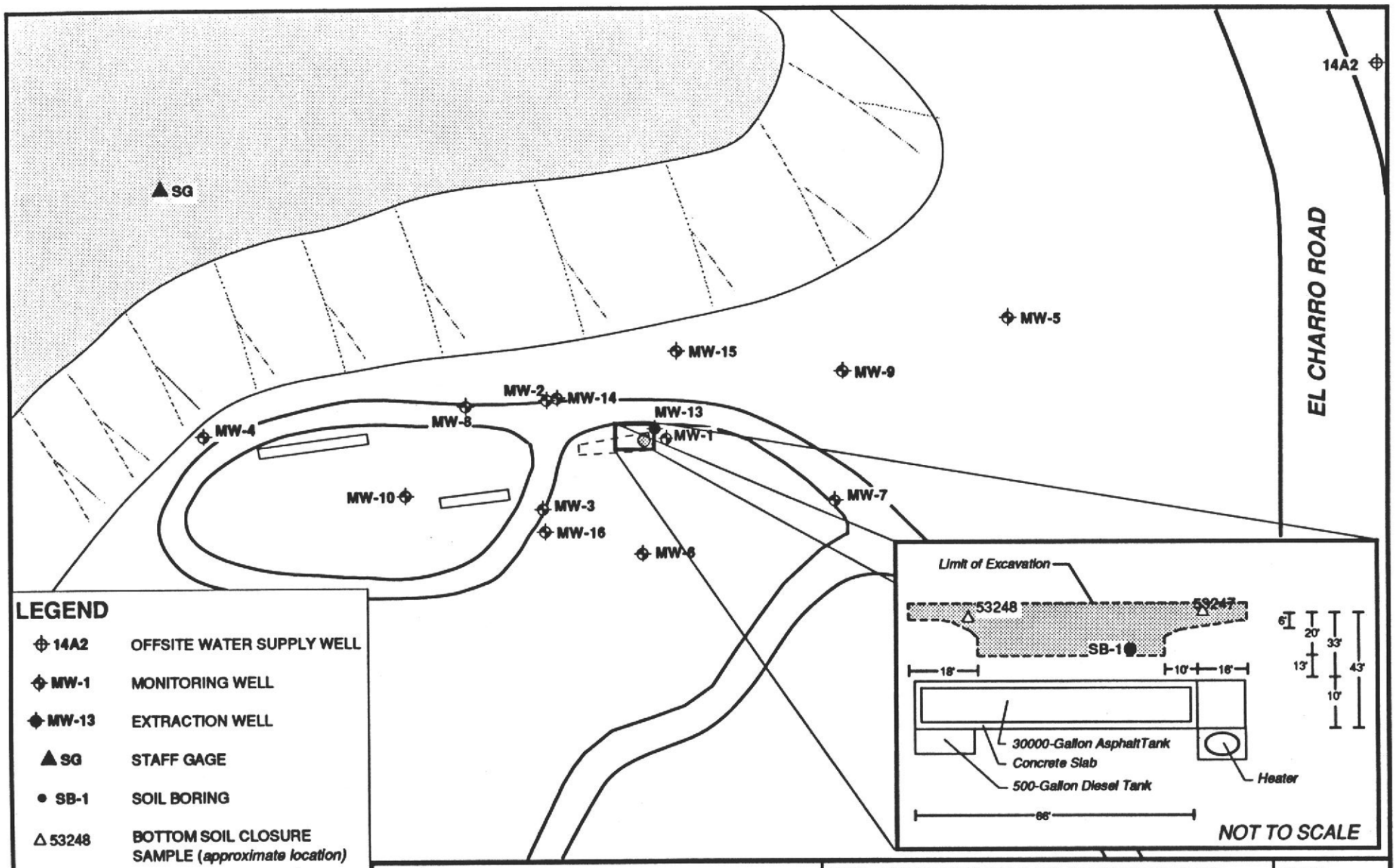
CHECKED BY: K. Jesionek DATE: 3-5-91

GROUND WATER SURFACE GRADIENT MAP (JANUARY 1991)

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PROJECT NO. 10-1682-03

PLATE
3



LEGEND

14A2	OFFSITE WATER SUPPLY WELL
MW-1	MONITORING WELL
MW-13	EXTRACTION WELL
SG	STAFF GAGE
SB-1	SOIL BORING
53248	BOTTOM SOIL CLOSURE SAMPLE (*approximate location*)

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: 3-1-91

CHECKED BY: K. Jesionek DATE: 3-1-91

SOIL EXCAVATION PLAN (JANUARY 1991)

INDUSTRIAL ASPHALT
PLEASANTON, CALIFORNIA

PROJECT NO. 10-1682-03

PLATE
4

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

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

CLIENT PROJ. NO: 10-1682-06

REPORT DATE: 02/15/91

DATE SAMPLED: 02/02/91

DATE RECEIVED: 02/02/91

MED-TOX JOB NO: 9102012

ANALYSIS OF: SOIL SAMPLES

Sample Identification Client Id.	Lab No.	Extractable Hydrocarbons as Diesel (mg/kg)	Extractable Hydrocarbons as Oil (mg/kg)
53247	01A	ND	ND
53248	02A	ND	ND
Detection Limit		10	20

Method: 3550 GCFID

Instrument: C

Date Extracted: 02/05/91

Date Analyzed: 02/06/91

ND = Not Detected

Andrew Bradeen

Andrew Bradeen, Manager
Organic Laboratory

Results FAXed to Krys Jesionek 02/12/91

KLEINFELDER, INC.

CLIENT ID: 53247
CLIENT JOB NO: 10-1682-06
DATE SAMPLED: 02/02/91
DATE RECEIVED: 02/02/91
REPORT DATE: 02/15/91

MED-TOX LAB NO: 9102012-01A
MED-TOX JOB NO: 9102012
DATE EXTRACTED: 02/07/91
DATE ANALYZED: 02/10/91
INSTRUMENT: B

EPA METHOD 8080

POLYCHLORINATED BIPHENYLS

AROCLOR	CAS #	CONCENTRATION (mg/kg)	DETECTION LIMIT (mg/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1221	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53248
CLIENT JOB NO: 10-1682-06
DATE SAMPLED: 02/02/91
DATE RECEIVED: 02/02/91
REPORT DATE: 02/15/91

MED-TOX LAB NO: 9102012-02A
MED-TOX JOB NO: 9102012
DATE EXTRACTED: 02/07/91
DATE ANALYZED: 02/10/91
INSTRUMENT: B

EPA METHOD 8080

POLYCHLORINATED BIPHENYLS

AROCLOR	CAS #	CONCENTRATION (mg/kg)	DETECTION LIMIT (mg/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1221	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

MED-TOX ASSOCIATES INC

QUALITY CONTROL DATA

KLEINFELDER, INC.

CLIENT PROJ. NO: 10-1682-06

MED-TOX JOB NO: 9102012

DATE EXTRACTED: 02/05/91
DATE ANALYZED: 02/06/91
INSTRUMENT: C

MED-TOX JOB NO: 9102012
CLIENT REF: 10-1682-06

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOILS
METHOD 3550 GCFID
(SOIL MATRIX; EXTRACTION METHOD)

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	84.8	ND	83.1	70.0	90.3	17.1

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Diesel	(49-124)	22

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

DATE EXTRACTED: 02/07/91

INSTRUMENT: B

MED-TOX JOB NO: 9102012

CLIENT REF: 10-1682-06

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab No.	2,4,5,6-Tetrachloro-meta-xylene
02/10/91	53247	01A	76
02/10/91	53248	02A	76

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(59-134)

DATE EXTRACTED: 02/07/91

DATE ANALYZED: 02/10/91

MED-TOX JOB NO: 9102012

INSTRUMENT: B

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8080 (PCBs)
(SOIL MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	183	ND	161	163	88.5	1.2

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(64-105)	33

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

K-4,5-1

MED-TOX ASSOCIATES INC.

Page _____ of _____

REQUEST FOR ANALYSIS/ CHAIN OF CUSTODY

Reporting Information:

1. Client: Kleinfelder, Inc.
Address: WC.
Contact: Krys Jesionek
Alt. Contact:

Address Invoice To:

3.

Address Report To:

2. Kleinfelder, Inc. WC
Attn: KRYS JESIONEK

Send Invoice To:

4.

Lab Job Number: 9102012
Lab Destination:
Date Samples Shipped:
Lab Contact:
Date Verbals/FAX Required:
Date Report Required: Normal TAT
Client Contact PH. No.:
Client Contact Fax No.:

Send Report To: 1 or 2 (Circle one)
Client Project/P.O. #: 10-1682-06
Sample Team Member ('s)

Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type *	Pres.	No. of Cont.	Type of Cont.	ANALYSIS: Diesel/Waste Oil	ANALYSIS: PCBs	Comments/Inst., Hazards, etc.
1A	53247		2 Feb 91	Soil		1	Tube	✓	✓	Normal TAT
2A	53248		2 Feb 91	Soil		1	tube	✓	✓	

Relinquished by: (Signature)	DATE 2 Feb 91	TIME 4:10	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received at Lab by: (Signature) G. Van Fleet
Method of Shipment			Lab Comments

DATE 2/2/91 TIME 14/0

* Sample type (Specify): 1) 25 mm 0.45 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) Waste Water (8) Soil 9) Bulk 10) Other

COPIES: WHITE - JOB FILE • YELLOW - PROJECT FILE • PINK - CLIENT

MED-TOX ASSOCIATES, INC.

WORKING COPY

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES
3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

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

REPORT DATE: 02/15/91

DATE SAMPLED: 01/29-30/91

DATE RECEIVED: 01/30/91

CLIENT PROJ. NO: 10-1682-03
C.O.C. NO: 1139

MED-TOX JOB NO: 9101243

ANALYSIS OF: WATER SAMPLES

Sample Identification Client Id.	Lab No.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)
53118 mw-5	01A	ND	ND
53122 mw-4	02A	ND	0.5
53128 mw-6	03A	ND	ND
53130 mw-7	04A	ND	ND
Detection Limit		0.05	0.1

Method: 3520 GCFID

Instrument: C

Date Extracted: 01/31/91

Date Analyzed: 02/04/91

ND = Not Detected

Andrew Bradeen

Andrew Bradeen, Manager
Organic Laboratory

Results FAXed to Krys Jesionek 02/13/91

KLEINFELDER, INC.

CLIENT ID: 53118 MW-5
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/29/91
DATE RECEIVED: 01/30/91
REPORT DATE: 02/15/91

MED-TOX LAB NO: 9101243-01C
MED-TOX JOB NO: 9101243
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53122
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/30/91
DATE RECEIVED: 01/30/91
REPORT DATE: 02/15/91

MED-TOX LAB NO: 9101243-02C
MED-TOX JOB NO: 9101243
DATE EXTRACTED: 02/04, 07/91
DATE ANALYZED: 02/05-08/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

Duplicate sample extractions showed surrogate recoveries outside our Quality Control limits due to sample matrix effects; therefore, all results are 'estimated concentrations'.

KLEINFELDER, INC.

CLIENT ID: 53128 MW-6
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/30/91
DATE RECEIVED: 01/30/91
REPORT DATE: 02/15/91

MED-TOX LAB NO: 9101243-03C
MED-TOX JOB NO: 9101243
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53130 MW-7
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/30/91
DATE RECEIVED: 01/30/91
REPORT DATE: 02/15/91

MED-TOX LAB NO: 9101243-04C
MED-TOX JOB NO: 9101243
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

MED-TOX ASSOCIATES INC

QUALITY CONTROL DATA

KLEINFELDER, INC.

CLIENT PROJ. NO: 10-1682-03

MED-TOX JOB NO: 9101243

DATE EXTRACTED: 01/31/91
DATE ANALYZED: 02/04/91
INSTRUMENT: C

MED-TOX JOB NO: 9101243

CLIENT REF: 10-1682-03

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD 3510 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	0.509	ND	0.414	0.353	75.3	15.9

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Diesel	(37-104)	32

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

DATE EXTRACTED: 02/04-07/91

INSTRUMENT: B

MED-TOX JOB NO: 9101243

CLIENT REF: 10-1682-03

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab No.	2,4,5,6-Tetrachloro-meta-xylene
02/05/91	53118	01C	77
02/05/91	53122	02C	20 *
02/05/91	53128	03C	73
02/05/91	53130	04C	67
02/08/91	53122	02D	23 *

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(46-134)

* Surrogate outside QC limits

DATE EXTRACTED: 02/04/91

DATE ANALYZED: 02/05/91

MED-TOX JOB NO: 9101243

INSTRUMENT: B

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8080 (PCBs)
(WATER MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	4.65	ND	4.59	4.29	95.5	6.8

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(57-127)	24

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

KLEINFELDER R-1, S-F 9101243

PROJ. NO.	PROJECT NAME
10-1682-03	Industrial Asphalt
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number)

DATE MM/DD/YY	SAMPLE I.D. TIME HH:MM:SS	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: TPH Diesel	PCBs	REMARKS
1/29/91	12:21	mw-5 53118 01A,B,C,D	4	X	X	
1/30/91	9:01	mw-4 53122 02A,B,C,D	↓	↓	↓	
↓	11:57	mw-6 53128 03A,B,C,D	↓	↓	↓	
↓	14:30	mw-7 53130 04A,B,C,D	↓	↓	↓	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Willy J. Mitchell	1/30/91	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	1/31/91 1455	[illegible signature]

Remarks: Attn: Krys Jesionek S.T.A.

Send Results To

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

M-60 White Sampler Canary Return Copy To Shipper Pink Lab Copy № 1139

CHAIN OF CUSTODY

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES
3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

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

REPORT DATE: 02/19/91
DATE SAMPLED: 01/31/91
DATE RECEIVED: 01/31/91
MED-TOX JOB NO: 9101257

CLIENT PROJ. NO: 10-1682-03
C.O.C. NO: 1145

ANALYSIS OF: WATER SAMPLES

Sample Identification Client Id.	Lab No.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)
53134 * mw-10	01A	0.1	0.3
53138 * mw-15	02A	0.5	0.6
53144 * mw-16	03A	0.3	0.4
53148 * mw-17	04A	0.3	0.5
53150 * mw-13	05A	0.5	0.2
Detection Limit		0.05	0.1

Method: 3510 GCFID

Instrument: C

Dates Extracted: 02/04, 14/91

Dates Analyzed: 02/06-14/91

* Sample contained what appears to be weathered diesel and higher molecular weight hydrocarbons.

Andrew Bradeen

Andrew Bradeen, Manager
Organic Laboratory

Results FAXed to Krys Jesionek 02/15/91

KLEINFELDER, INC.

CLIENT ID: 53134 MW 10
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/31/91
DATE RECEIVED: 01/31/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9101257-01C
MED-TOX JOB NO: 9101257
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53138 MW-5
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/31/91
DATE RECEIVED: 01/31/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9101257-02C
MED-TOX JOB NO: 9101257
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53144 Matrix
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/31/91
DATE RECEIVED: 01/31/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9101257-03D
MED-TOX JOB NO: 9101257
DATE EXTRACTED: 02/04, 07/91
DATE ANALYZED: 02/04-08/91
INSTRUMENT: A

EPA METHOD 8080

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-I	ND	0.5
Aroclor 1260	11096-82-5	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53148
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/31/91
DATE RECEIVED: 01/31/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9101257-04C
MED-TOX JOB NO: 9101257
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53150 mw 13
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 01/31/91
DATE RECEIVED: 01/31/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9101257-05C
MED-TOX JOB NO: 9101257
DATE EXTRACTED: 02/04/91
DATE ANALYZED: 02/05/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

MED-TOX ASSOCIATES INC

QUALITY CONTROL DATA

KLEINFELDER, INC.

CLIENT PROJ. NO: 10-1682-03

MED-TOX JOB NO: 9101257

DATE EXTRACTED: 02/14/91
DATE ANALYZED: 02/14/91
INSTRUMENT: C

MED-TOX JOB NO: 9101257

CLIENT REF: 10-1682-03

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD 3510 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	0.510	ND	0.465	0.495	94.1	6.3

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Diesel	(37-104)	32

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

DATE EXTRACTED: 02/04-07/91

INSTRUMENT: A

MED-TOX JOB NO: 9101257

CLIENT REF: 10-1682-03

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab No.	2,4,5,6-Tetrachloro-meta-xylene
02/05/91	53134	01C	63
02/05/91	53138	02C	52
02/08/91	53144	03D	55
02/05/91	53148	04C	48
02/05/91	53150	05C	65

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(46-134)

DATE EXTRACTED: 02/04/91

DATE ANALYZED: 02/05/91

MED-TOX JOB NO: 9101257

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	4.65	ND	4.59	4.29	95.5	6.8

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(57-127)	24

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

MED-TOX ASSOCIATES, INC.

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES
3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

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

REPORT DATE: 02/19/91

DATE SAMPLED: 02/04/91

DATE RECEIVED: 02/04/91

MED-TOX JOB NO: 9102018

CLIENT PROJ. NO: 10-1682-03
C.O.C. NO: 1099

ANALYSIS OF: WATER SAMPLES

Sample Identification Client Id.	Lab No.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)
53156 mw-9	01A	ND	2.4 *
53160 mw-8	02A	12	12
53164 mw-3	03A	440	320
53166 mw-2	04A	200	140
53172 Pump tank	05A	ND	ND
Detection Limit		0.05	0.1

Method: 3510 GCFID

Instrument: C

Date Extracted: 02/06/91
Date Analyzed: 02/07/91

ND = Not Detected

* Quantitated as motor oil but includes hydrocarbons in the diesel range.

Andrew Bradeen

Andrew Bradeen, Manager
Organic Laboratory

Results FAXed to Krys Jesionek 02/13/91

KLEINFELDER, INC.

CLIENT ID: 53156 mw-9
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 02/04/91
DATE RECEIVED: 02/04/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9102018-01C
MED-TOX JOB NO: 9102018
DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07-08/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53160 mw-8
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 02/04/91
DATE RECEIVED: 02/04/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9102018-02C
MED-TOX JOB NO: 9102018
DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07-08/91
INSTRUMENT: A

EPA METHOD 8080

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	1.2	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53164 mw-3
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 02/04/91
DATE RECEIVED: 02/04/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9102018-03C
MED-TOX JOB NO: 9102018
DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07-08/91
INSTRUMENT: A

EPA METHOD 8080

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	7.3	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53166 mw-2
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 02/04/91
DATE RECEIVED: 02/04/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9102018-04C
MED-TOX JOB NO: 9102018
DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07-08/91
INSTRUMENT: A

EPA METHOD 8080

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	5.8	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT ID: 53172 Duplicate
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 02/04/91
DATE RECEIVED: 02/04/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9102018-05C
MED-TOX JOB NO: 9102018
DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07-08/91
INSTRUMENT: A

EPA METHOD 8080

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	ND	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

KLEINFELDER, INC.

CLIENT JOB NO: 10-1682-03
CLIENT ID: 53172 Dup - Bank
DATE SAMPLED: 02/04/91
DATE RECEIVED: 02/04/91
REPORT DATE: 02/19/91

MED-TOX LAB NO: 9102018-05E
MED-TOX JOB NO: 9102018

DATE ANALYZED: 02/06-07/91
INSTRUMENT: F

BTEX

METHOD: EPA 8020 (5030)

	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Benzene	ND	0.3
Toluene	ND	0.3
Ethylbenzene.	ND	0.3
Xylenes, Total.	ND	1

ND = Not Detected

MED-TOX ASSOCIATES INC

QUALITY CONTROL DATA

KLEINFELDER, INC.

CLIENT PROJ. NO: 10-1682-03

MED-TOX JOB NO: 9102018

DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07/91
INSTRUMENT: C

MED-TOX JOB NO: 9102018
CLIENT REF: 10-1682-03

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD 3510 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	0.509	ND	0.374	0.348	70.9	7.2

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Diesel	(37-104)	32

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

DATE ANALYZED: 02/06/91

INSTRUMENT: F

MED-TOX JOB NO: 9102018

CLIENT REF: 10-1682-03

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8020/5030 GCFID (PURGE & TRAP)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
Benzene	16.8	ND	19.0	17.9	109.8	6.0
Toluene	52.6	ND	58.2	55.1	107.7	5.5
Hydrocarbons as Gasoline	479	ND	506	496	104.6	2.2

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Benzene	(82-118)	18
Toluene	(89-111)	15
Gasoline	(76-108)	17

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

DATE EXTRACTED: 02/06/91

INSTRUMENT: A

MED-TOX JOB NO: 9102018

CLIENT REF: 10-1682-03

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab No.	2,4,5,6-Tetrachloro-meta-xylene
02/07/91	53156	01C	55
02/07/91	53160	02C	63
02/07/91	53164	03C	49
02/07/91	53166	04C	62
02/07/91	53172	05C	78

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(46-134)

DATE EXTRACTED: 02/06/91

DATE ANALYZED: 02/07/91

MED-TOX JOB NO: 9102018

INSTRUMENT: A

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8080 (PCBs)
(WATER MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	4.65	ND	4.14	3.81	85.5	8.3

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(57-127)	24

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

[redacted] 110125 [redacted]

PROJ. NO.	PROJECT NAME
10.1682-03	Industrial Asphalt
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number) Willy McFarlell #507 & Bill Gaul

DATE MM/DD/YY	SAMPLE I.D. TIME HH:MM:SS	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS TPH Diesel	ANALYSIS PCB's	REMARKS
1/31/91	8:35	MW-10 53134 01ABCD	4	X	X	A E B Fractions - HCL
	9:41	MW-15 53138 02ABCD				C10 Unpreserved
	10:31	MW-16 53144 03ABCD				02B Preserved w/ HCL
	11:21	MW-14 53148 04ABCD				upon arrival
	12:30	MW-13 53150 05ABCD				

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Willy McFarlell	1/31/91	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	1/31/91 13:40	Kolleen Byrne

Remarks
Attn: Krys Jesionek
S.A.T.
Invoice this proj. as 1

Send Results To

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

M-60 White Sampler Canary - Return Copy To Shipper Pink Lab Copy

No. 1145

CHAIN OF CUSTODY

LABORATORY ANALYSIS REPORT

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

REPORT DATE: 02/22/91

DATE SAMPLED: 02/06/91

DATE RECEIVED: 02/06/91

MED-TOX JOB NO: 9102037

CLIENT PROJ. NO: 10-1682-03
C.O.C. NO: 0472

ANALYSIS OF: WATER SAMPLE

Sample Identification Client Id.	Lab No.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)
54168 MW-1	01A	110	63
Detection Limit		0.05	0.1

Method: 3510 GCFID

Instrument: C

Date Extracted: 02/06/91
Date Analyzed: 02/07/91

Michael Lynch for AB
Andrew Bradeen, Manager
Organic Laboratory

Results FAXed to Krys Jesionek 02/21/91

KLEINFELDER, INC.

CLIENT JOB NO: 10-1682-03
CLIENT ID: 54168
DATE SAMPLED: 02/06/91
DATE RECEIVED: 02/06/91
REPORT DATE: 02/22/91

MED-TOX LAB NO: 9102037-01E
MED-TOX JOB NO: 9102037

DATE ANALYZED: 02/07-08/91
INSTRUMENT: F

BTEX

METHOD: EPA 8020 (5030)

	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Benzene	ND	0.6
Toluene	ND	0.6
Ethylbenzene.	ND	0.6
Xylenes, Total.	ND	2

ND = Not Detected

Sample was diluted 2 x due to significant diesel content.
Detection limits have been adjusted accordingly.

KLEINFELDER, INC.

CLIENT ID: 54168
CLIENT JOB NO: 10-1682-03
DATE SAMPLED: 02/06/91
DATE RECEIVED: 02/06/91
REPORT DATE: 02/22/91

MED-TOX LAB NO: 9102037-01C
MED-TOX JOB NO: 9102037
DATE EXTRACTED: 02/13,19/91
DATE ANALYZED: 02/15-19/91
INSTRUMENT: A

EPA METHOD 8080

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	9.6	0.5

ND = Not Detected

Analytical Method: EPA 8080, SW-846 3rd Edition, 1986

MED-TOX ASSOCIATES INC

QUALITY CONTROL DATA

KLEINFELDER, INC.

CLIENT PROJ. NO: 10-1682-03

MED-TOX JOB NO: 9102037

DATE EXTRACTED: 02/06/91
DATE ANALYZED: 02/07/91
INSTRUMENT: C

MED-TOX JOB NO: 9102037

CLIENT REF: 10-1682-03

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD 3510 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	0.509	ND	0.374	0.348	70.9	7.2

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Diesel	(37-104)	32

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

DATE ANALYZED: 02/08/91

INSTRUMENT: F

MED-TOX JOB NO: 9102037

CLIENT REF: 10-1682-03

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8020/5030 GCFID (PURGE & TRAP)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
Benzene	17.5	ND	16.9	16.2	94.6	4.2
Toluene	57.5	ND	55.0	52.7	93.7	4.3
Hydrocarbons as Gasoline	498	ND	514	456	97.4	12.0

CURRENT QC LIMITS (Revised 11/12/90)

Analyte	Percent Recovery	RPD
Benzene	(82-118)	18
Toluene	(89-111)	15
Gasoline	(76-108)	17

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

DATE EXTRACTED: 02/19/91

INSTRUMENT: A

MED-TOX JOB NO: 9102037

CLIENT REF: 10-1682-03

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab No.	2,4,5,6-Tetrachloro-meta-xylene
02/19/91	54168	01D	67

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(46-134)

DATE EXTRACTED: 02/19/91

DATE ANALYZED: 02/19/91

MED-TOX JOB NO: 9102037

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	4.70	ND	4.64	4.58	98.1	1.3

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(57-127)	24

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

KLEINFELDER R-1, S-A
R-3, S-4

9102037

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	ANALYSIS: TPH as diesel	PCB's ONLY	BTEX	REMARKS
10 142 03	Industrial Asphalt					
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number) [signature] 1282					

DATE MM/DD/YY	SAMPLE I.D. TIME HH:MM:SS	SAMPLE I.D.	NO. OF CONTAINERS	TPH as diesel	PCB's ONLY	BTEX	REMARKS
2-6-91	01A, B	54168 MW-1	2	X			floating effluent - may be hot
↓	C, D	↓ ↓	2		X		
↓	E, F	↓ ↓	2			X	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	2-6-91 1210	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	2/6/91 1210	Denise Harrington

Remarks: Standard T.A.T
Attn Krys Jesionek

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

M-60 White Sampler Canary Return Copy To Shipper Pink Lab Copy

№ 0472

CHAIN OF CUSTODY