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January 29, 1999

Alameda County Health Care Services
Environmental Health Services
ATTN : Mr. Barney Chan
1131 Harbor Bay Parkway, Suite 250
Alameda, California 95402-6577

Re: Fourth Quarter 1998 Groundwater Monitoring Report
3927 East 14th Street
Oakland, California

11/12/98 - ORC injection

Dear Mr. Chan:

Enclosed is a copy of the *Fourth Quarter 1998 Groundwater Monitoring Report* prepared for Ruben Hausauer's 3927 East 14th Street, Oakland, California site. This report documents the results of the fourth quarter of groundwater monitoring performed at the site. Groundwater monitoring was performed on 16 December 1998 by Kleinfelder Inc. personnel. This report was prepared by Kleinfelder Inc. at the request of Ruben Hausauer.

If you have any questions or comments, please call either Kleinfelder Inc. at (408) 436-1155 or me at (415) 621-3939. Thank you for your time and attention.

Very truly yours,

Tommy A. Conner

:syr/Enclosure

cc: State Water Resources Control Board (w/encl)
P. O Box 944212
Sacramento, California 94244-2120

Gary Rogers, Ph.D (w encl)
Aquatic & Environmental Applications
38053 Davy Court
Fremont, CA 94536

FOURTH QUARTER 1998
GROUNDWATER MONITORING
NEW GENICO FACILITY
3927 EAST 14th STREET
OAKLAND, CALIFORNIA

PREPARED FOR: Conner-Bak, LLP
444 De Haro Street, Suite 121
San Francisco, California 94107

ATTENTION: Mr. Tommy Conner

January 26, 1999

KLEINFELDER
An employee owned company

January 26, 1999
File No. 12-3047-60

Mr. Tommy A. Conner
Conner-Bak, LLP
444 De Haro Street, Suite 121
San Francisco, California 94107

SUBJECT: Fourth Quarter 1998 Groundwater Monitoring Report, New Genico Facility, 3927 East 14th Street, Oakland, California

Dear Mr. Conner:

Kleinfelder, Inc. (Kleinfelder) is pleased to provide you with the Fourth Quarter 1998 Groundwater Monitoring Report for the New Genico facility (New Genico) located at 3927 East 14th Street, Oakland, California (site; Plate 1). Note that 14th Street has been renamed "International Boulevard" for consistency with previous reports; however, we will continue to refer to the site as 3927 East 14th Street. This report discusses field procedures, observations, and results of the fourth quarter 1998 groundwater monitoring event. Work was conducted in accordance with Kleinfelder's proposal dated June 18, 1998.

Kleinfelder performed groundwater monitoring and sampling on December 16, 1998, collecting groundwater samples from four groundwater monitoring wells at the site (HMW-1 through HMW-4). Monitoring well locations are shown on Plate 2.

BRIEF BACKGROUND

A release from an underground storage tank (UST) previously located on-site resulted in impacts to soil and groundwater. The UST was removed previously, along with some of the impacted soils. In accordance with Alameda County Health Care Services Agency (ACHCS) and California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), requirements, monitoring activities have been performed since August 1996 and are continuing at the site. A release from USTs formerly located across the street at the Motor Partners facility has also impacted soil and groundwater, and it appears that there is some commingling of plumes.

All of the wells are completed in the first continuous water-bearing zone encountered beneath the site. Wells HMW-1 through HMW-3 are constructed with 2-inch diameter polyvinyl chloride

(PVC) casing. HMW-4 was a "pre-constructed" well using 0.6-inch inner diameter (I.D.) PVC casing that was installed using direct push technology on November 18, 1998.

FIELD WORK

Kleinfelder performed the monitoring concurrently with Motor Partners' monitoring event on December 16, 1998. Kleinfelder measured depths to water (Table 1) and collected groundwater samples on December 16, 1998, from three of the four monitoring wells in accordance with the protocol presented in Appendix A. Measurements of "redox" potential (reduction/oxidation potential) and dissolved oxygen were made immediately prior to sampling groundwater depth could not be measured this quarter in HMW-4 as the sounder was too large for this 0.6-inch I.D. well.

Prior to purging the wells, Kleinfelder remeasured water levels in three of the four wells using an electronic measuring device, and in three of the four wells, a translucent bailer was used to monitor for the presence of floating product or a sheen. Kleinfelder noted a sheen on the HMW-3; but no measurable thickness of floating product was noted. Neither a sheen nor floating product was observed in the remaining monitoring wells. An odor was noted in the groundwater in HMW-1 and HMW-3. Due to the small diameter of HMW-4, it was not possible to insert a bailer and monitor for a sheen or floating product in this manner. Due to its small diameter, well HMW-4 had to be purged with a peristaltic pump. The other wells were purged with a bailer.

Purging was performed until a minimum of three casing volumes of water were removed from each well. Purge logs and field observation sheets are included in Appendix B.

LABORATORY ANALYSES

Groundwater samples collected during the fourth quarter 1998 were analyzed for total petroleum hydrocarbons (TPH) quantified as diesel (TPHd), TPH as motor oil (TPHmo), and TPH as gasoline (TPHg) by modified United States Environmental Protection Agency (EPA) Method 8015; benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MtBE). The four samples were also analyzed by the laboratory for the bioremediation indicator parameters that were specifically requested by ACHCS. These analyses include:

- ferrous iron;
- nitrate-nitrogen; and
- sulfate

Samples were collected in laboratory supplied containers. The groundwater samples were submitted to Entech Analytical Labs, Inc. of Sunnyvale, California, for chemical analysis. Entech is a laboratory certified by the State of California to perform the above-mentioned analyses.

RESULTS

Groundwater Gradient

Table 1 presents the water-level data for December 1998 for the New Genico facility. Depth-to-water data as measured and provided by Rogers Environmental Services on December 16, 1998, is presented on Table 2. Plate 2 presents the groundwater piezometric contours for September 24, 1998, using the data collected by Kleinfelder.

As illustrated in Plate 2, the groundwater flow direction beneath the site was southerly on December 16, 1998. The magnitude of the hydraulic gradient was approximately 0.015 foot per foot. This flow direction and hydraulic gradient are generally consistent with previous findings. Groundwater levels declined an average of 1.6 feet since last quarter in three of the site's four groundwater monitoring wells.

Floating product

A slight sheen was observed in HMW-3 this quarter, but there was no measurable quantity of floating product. Neither a sheen nor floating product was observed in the other site wells. Historical data with respect to the presence/absence of floating product or a sheen indicates that in the previous quarter, a sheen was noted in HMW-1 and HMW-2. Floating product was not observed in the wells in the previous quarter.

Groundwater Analyses

This quarter's groundwater chemistry data for the site are presented in Table 3. Historical data, also presented on Table 3, were obtained from ATC Associates, Inc.'s *Fourth Quarter 1997 Groundwater Monitoring Report* (January 8, 1998), Artesian Environmental's *Groundwater Sampling Point Installation and Sampling Report* (January 30, 1998), Groundworks Environmental, Inc.'s *First Quarter 1998 Groundwater Monitoring Report* (April 10, 1998), Kleinfelder's *Second Quarter 1998 Groundwater Monitoring Report* (July 29, 1998), Kleinfelder's *Third Quarter 1998 Groundwater Monitoring Report* (October 22, 1998).

Laboratory reports from Entech are included in Appendix C. The values of the groundwater parameters measured prior to sampling (pH, temperature and specific conductivity) are presented on Table 4.

The following summarizes the December 1998 analytical results for the 3927 East 14th Street facility

- TPH-d was not reported in any of the wells this quarter
- TPH-mo was reported in well HMW-1, its concentration decreasing significantly from last quarter. TPH-mo was not detected in the other on-site wells.

- TPH-g concentrations decreased in wells HMW-1 and HMW-3 (TPH-g concentrations were ND in HMW-3.) TPH-g concentrations increased in HMW-2 and HMW-4.
- Benzene concentrations decreased in well HMW-1. Benzene concentrations increased slightly in HMW-2 and HMW-4. Benzene remained non-detect (ND) in HMW-3 for the fourth consecutive quarter. Benzene concentrations are in excess of its Maximum Contaminent Level (MCL) of 1 microgram per liter (μg/L) in HMW-1, HMW-2 and HMW-4.
- Toluene, ethylbenzene and total xylenes concentrations decreased in well HMW-1. Toluene and ethylbenzene remained ND in HMW-3 for the fourth consecutive quarter. Total Xylenes were reported to be ND in HMW-3. Toluene, ethylbenzene, and total xylenes concentrations increased slightly in HMW-2. Ethylbenzene and total xylenes concentrations increased slightly in HMW-4. All three constituents that were reported were below their respective MCLs.
- MtBE concentrations were not reported due to the malfunctioning of laboratory instrumentation.

Bioremediation Indicator Parameters

Selected bioremediation indicator parameters were either measured in the field (dissolved oxygen and redox potential) or analyzed by the analytical laboratory (nitrate, sulfate, and ferrous iron). Results for upgradient wells and wells located proximate to the former UST location were compared to wells located downgradient of the former UST location to see if any general trends were discernible.

There was no dissolved oxygen reading in HMW-1 this quarter due to an apparent technical oversight. Dissolved oxygen decreased in HMW-2 compared to last quarter but was higher than the remaining historical readings for this well. Dissolved oxygen readings more than doubled in HMW-3 and HMW-4. Readings suggest an aerobic environment proximate to HMW-2, HMW-3 and HMW-4. The very high dissolved oxygen reading in HMW-4 may be attributable to the fact that readings were not taken down-hole due to the small diameter of this well.

When bioremediation occurs in relatively anaerobic environments, the following trends may be observed across the dissolved contaminant plume:

- A decrease in nitrate concentrations;
- A decrease in sulfate concentrations;
- An increase in ferrous iron; and
- Redox potentials become increasingly negative.

The following presents our findings with respect to the selected bioremediation indicator parameters during this quarter

- Nitrate concentrations were higher than previously reported in HMW-1, decreased slightly over the previous quarter in HMW-3, and were "ND" in the remaining wells.
- Sulfate concentrations increased from ND in the previous quarter to 33.0 mg/L in well HMW-1. Sulfate concentrations decreased in well HMW-3, remained ND in well HMW-2, and increased only slightly in well HMW-4. No discernible pattern was observed.
- Ferrous iron was reported ND for well HMW-3 and increased from ND last quarter to 0.17 mg/L to 1.2 mg/L in the remaining wells. These concentrations indicate increases from the previous quarter, and may suggest the occurrence of anaerobic bioremediation.
- The redox potential in well HMW-3 was positive, which is consistent with historical readings, with the exception of last quarter, which was negative. Redox potentials in the remaining wells were negative, suggestive of the occurrence of anaerobic bioremediation.
- The increase in nitrate and sulfate concentrations may be related to the recent injection of oxygen releasing compound (ORC) proximate to the former UST location and may indicate an increasingly aerobic environment proximate to HMW-1.

Quality Control Results

Laboratory quality control (QC) data were evaluated to assess the acceptability of the analytical results. QC results are included with the Certified Analytical Reports (CARs) in Appendix C. Laboratory QC consisted of checking adherence to holding times and evaluating method blanks and blank spikes (BS). All analyses were performed within the required holding times. No compounds were detected in any of the method blanks. BS recoveries were within the laboratory acceptance limits.

The laboratory QC results indicate the data are of acceptable quality.

LIMITATIONS

Kleinfelder prepared this report in accordance with generally accepted standards of care, which exist in Northern California at this time. Conclusions are based on field observations made by Kleinfelder personnel and quantitative chemical analysis of four groundwater samples and a trip blank provided by Entech laboratory.

It should be recognized that definition and evaluation of geologic and environmental conditions is a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the present subsurface conditions. More extensive studies, including additional subsurface investigations, may be performed to reduce uncertainties. If the Client wishes to reduce the uncertainties of this investigation, Kleinfelder should be notified for additional consultation. No warranty, express or implied, is made.

If you have any questions about the enclosed report or any other aspect of the work, please contact Bill Theyskens at (408) 436-1155.

Sincerely,

KLEINFELDER, INC.

Cristina Goulart
Staff Scientist

William G. Theyskens, C.E.G., C.HG.
Environmental Group Manager

Attachments

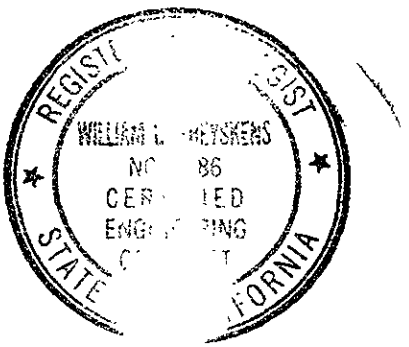

Table 1
Groundwater Elevations (1)
New Genico Facility
1397 East 14th Street Oakland, California

Well	Date	Casing Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	Floatng Product (2) (feet)	Corrected Elevation (3) (feet, MSL)
HMW-1	8/22/96	31.25	8 01	23.24	----	23.24
	2/25/97		5.95	25.30	----	25.30
	5/28/97		7.65	23.60	----	23.60
	9/2/97		8.56	22.69	----	22.69
	11/26/97		7.50	23.75	----	23.75
	2/9/98		3.35	27.90	----	27.90
	3/17/98		5.29	25.96	0.01	25.97
	6/30/98		6.63	24.62	0.00	24.62
	9/24/98		8 22	23.03	0.00	23 03
	12/16/98		6.66	24.59	0.00	24.59
HMW-2	8/22/96	29.43	8.71	20.72	----	20.72
	2/25/97		6.00	23.43	----	23.43
	5/28/97		7.65	21.78	----	21.78
	9/2/97		8.59	20.84	----	20.84
	11/26/97		6.82	22.61	----	22.61
	2/9/98		3.24	26.19	----	26.19
	3/17/98		4.44	24.99	0.00	24.99
	6/30/98		6.30	23 13	0.00	23.13
	9/24/98		8.20	21.23	0.00	21.23
	12/16/98		6.64	22.79	0.00	22.79
HMW-3	8/22/96	31.48	8.10	23.38	----	23 38
	2/25/97		6.00	25.48	----	25.48
	5/28/97		7.74	23.74	----	23.74
	9/2/97		8.60	22.88	----	22.88
	11/26/97		7.50	23.98	----	23.98
	2/9/98		2.34	29.14	----	29.14
	3/17/98		5.23	26.25	0.00	26.25
	6/30/98		6.60	24.88	0.00	24.88
	9/24/98		8.32	23.16	0.00	23.16
	12/16/98		6.71	24 77	0.00	24.77
HMW-4	11/26/97	28.80	7.42	21.38	----	21.38
	2/9/98		2.96	25.84	----	25.84
	3/17/98		5.72	23.08	0.00	23.08
	6/30/98		7.40	21.40	0 00	21.40
	9/24/98		9.80	19.00	0.00	19.00
	12/16/98		N/A	N/A	0.00	N/A

feet, MSL = feet, relative to Mean Sea Level
"----" = not measured, or data not readily available
(1) Data prior to 3/17/98 was obtained from reports prepared by ATC Associates Inc. (1/8/98) and Artesian Environmental (1/30/98), and a Field Report/Data Sheet (ATC, 2/9/98)
(2) Data regarding the presence/absence of floating product prior to March 1998 was not available at the time of preparation of this report
(3) Corrected elevation was calculated using the equation: [illegible] plus the product thickness multiplied by 0.83 (the specific gravity of the floating product)
Corrected Elevation = Groundwater Elevation + (0.83 x Floating Product Thickness)

Table 2
Groundwater Elevations (1)
Motor Partners Facility
1234 40th Avenue
Oakland, California

Well	Date	Casing Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	Floating Product (2) (feet)	Corrected Elevation (3) (feet, MSL)
MW-1	11/26/97	31.44	7.98	23.46	----	23.46
	3/17/98		5.84	25.60	----	25.60
	6/30/98		----	----	----	----
	9/24/98		8.74	22.70	----	22.70
	12/16/98		7.11	24.33	----	24.33
MW-2	11/26/97	31.06	7.24	23.82	----	23.82
	3/17/98		5.05	26.01	----	26.01
	6/30/98		6.35	24.71	----	24.71
	9/24/98		7.94	23.12	----	23.12
	12/16/98		6.42	24.64	----	24.64
MW-3	11/26/97	30.43	7.06	23.37	----	23.37
	3/17/98		5.11	25.32	----	25.32
	6/30/98		6.62	23.81	----	23.81
	9/24/98		8.13	22.30	----	22.30
	12/16/98		6.52	23.91	----	23.91
MW-4	11/26/97	30.37	6.64	23.73	----	23.73
	3/17/98		4.52	25.85	----	25.85
	6/30/98		5.86	24.51	----	24.51
	9/24/98		7.23	23.14	----	23.14
	12/16/98		5.92	24.45	----	24.45
MW-5	11/26/97	30.37	-----	-----	-----	-----
	3/17/98		5.80	24.57	-----	24.57
	6/30/98		----	----	----	----
	9/24/98		8.76	22.39	----	22.39
	12/16/98		7.19	23.96	----	23.96

feet MSL = feet, relative to Mean Sea Level
"----" = Not measured, or data not readily available
(1) Data prior to 3.17.98 was obtained from a report prepared by ATC Associates Inc. (1.8.98).
3.17.98 data was obtained from Gary Rogers of Aquatic & Environmental Applications

Table 2
Groundwater Elevations (1)
Motor Partners Facility
1234 40th Avenue
Oakland, California

Well	Date	Casing Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	Floating Product (2) (feet)	Corrected Elevation (3) (feet, MSL)

(2) Data regarding the presence/absence of floating product prior to March 1998 was not available at the time of preparation of this report.

(3) Corrected elevation is equal to groundwater elevation plus the estimated specific gravity of the floating product (0.83) multiplied by the floating product thickness:
Corrected Elevation = Groundwater Elevation + (0.83 x Floating Product Thickness).

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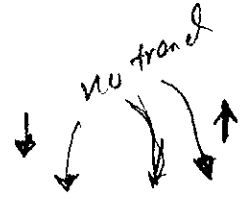
Table 3
Groundwater Analytical Results [1]
New Genico Facility
3927 E. 14th Street Oakland, California



Well I.D. No.	Sample Date	TPH as Diesel (µg/L)	TPH as motor oil (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)		Methyl tert Butyl Ether (µg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Dissolved Oxygen* (mg/L)	Redox Potential* (mV)
HMW-1	8-22-96	ND	ND	7,400	1,200	170	530	490		-----	-----	-----	-----	-----	-----
	2-25-97	2,000	ND	5,400	760	110	260	260		ND	-----	-----	-----	-----	-----
	5-28-97	2,000	600	6,600	1,100	100	290	340		130	-----	-----	-----	-----	-----
	9-2-97	8,700	3,700	4,000	460	40	200	100		ND [2]	2.0	12	4.20	0.24	-14.4
	11-26-97	4,700	3,000	7,500	1,000	120	270	320		ND [2]	0.6	ND	<0.01	2.0	+105
	3-17-98	ND	16,000	11,000	2,100	290	600	760		1,200	ND	0.8	0.16	0.8 [3]	-60.4
	6-30-98	ND	5,900	10,000	1,300	160	390	390		160	0.4	2.0	0.96	0.77	-46.70
	9-24-98	ND	6,600	7,100	890	89	230	180		430/ND [2]	1.4	ND	ND	~~4.6~~ 0.41	-17
	12-16-98	ND	1,400	1,900	290	39	85	100	.514	NR	5.1	33.0	0.17	NR	-40
HMW-2	8-22-96	7,400 [4]	2,100	6,300	170	57	370	120		-----	2100	2100	-----	-----	-----
	2-25-97	90	ND	8,400	150	35	280	70		ND [2]	ND	ND	-----	-----	-----
	5-28-97	130	200	6,000	170	35	170	67		150	200	200	-----	-----	-----
	9-2-97	4,502	ND [5]	8,000	210	30	160	90		ND [2]	ND	0.5	1.37	0.38	+25.2
	11-26-97	180	ND	1,600	41	7.5	40	10		31	ND	ND	0.03	2.5	+52
	3-17-98	ND	ND	8,600	200	96	410	120		330	ND	0.8	0.01	0.48 [3]	-50.28
	6-30-98	ND	ND	7,300	180	52	240	88		170	ND	ND	0.01	0.43	-45.50
	9-24-98	ND	ND	2,900	32	1.5	38	16		ND	ND	ND	ND	~~7~~ 0.32	+67
	12-16-98	ND	ND	5,300	93	25.0	160	53	.331	NR	ND	ND	1.1	~~4.3~~ 0.38	-73
HMW-3	8-22-96	ND	ND	1,300	3	6	8	12		----	ND	ND	-----	-----	-----
	2-25-97	70	ND	150	ND	ND	ND	ND		ND	ND	ND	-----	-----	-----
	5-28-97	ND	ND	80	ND	ND	0.60	ND		ND	ND	ND	-----	-----	-----
	9-2-97	ND [5]	ND [5]	140	ND	ND	2.1	ND		ND	2	53	0.03	0.88	+98.6
	11-26-97	50	ND	70	0.6	0.8	0.8	ND		ND	3.5	50	0.01	1.4	+102
	3-17-98	ND	200	ND	ND	ND	ND	ND		ND	1.1	43	ND	0.63 [3]	91.90
	6-30-98	ND	ND	ND	ND	ND	ND	ND		ND	4.0	51	ND	0.25	95.70
	9-24-98	ND	ND	58	ND	ND	ND	0.76		ND	4.9	95	ND	~~3.7~~ 0.63	-16
	12-16-98	ND	ND	ND	ND	ND	ND	ND	ND	NR	4.0	55	ND	~~7.8~~ 0.71	-138
HMW-4	11-26-97	400	ND	1,600	4.2	3.1	1.7	5.9		ND	----	----	----	----	----
	3-17-98	ND	ND	1,300	20	1.4	6.8	3.0		19	ND	8.6	0.12	2.4 [3]	-26.67
	6-30-98	ND	ND	940	17	1.5	18	2		10	ND	18.0	ND	3.7	-21.7
	9-24-98	ND	ND	370	7.2	ND	0.75	1.3		11	ND	11	ND	~~6.6~~ 0.53	-17
	12-16-98	ND	ND	830	11.0	ND	2.70	5.0	.187	NR	ND	12	1.20	13.8	-34

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Table 3
Groundwater Analytical Results [1]
New Genico Facility
3927 E. 14th Street Oakland, California

Well ID No	Sample Date	TPH as Diesel (µg/L)	TPH as motor oil (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Methyl tert Butyl Ether (µg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Dissolved Oxygen[4] (mg/L)	Redox Potential[4] (mV)
TRIP BLANK	3 17 98	----	----	ND	ND	ND	ND	ND	ND	----	----	----	----	----
	6 30 98	----	----	ND	ND	ND	ND	ND	ND	----	----	----	----	----
	9 21 98	----	----	ND	ND	ND	ND	ND	ND	----	----	----	----	----
	12 16 98													
MCL					1.0	150	700	1,750	35 [7]					

NOTES

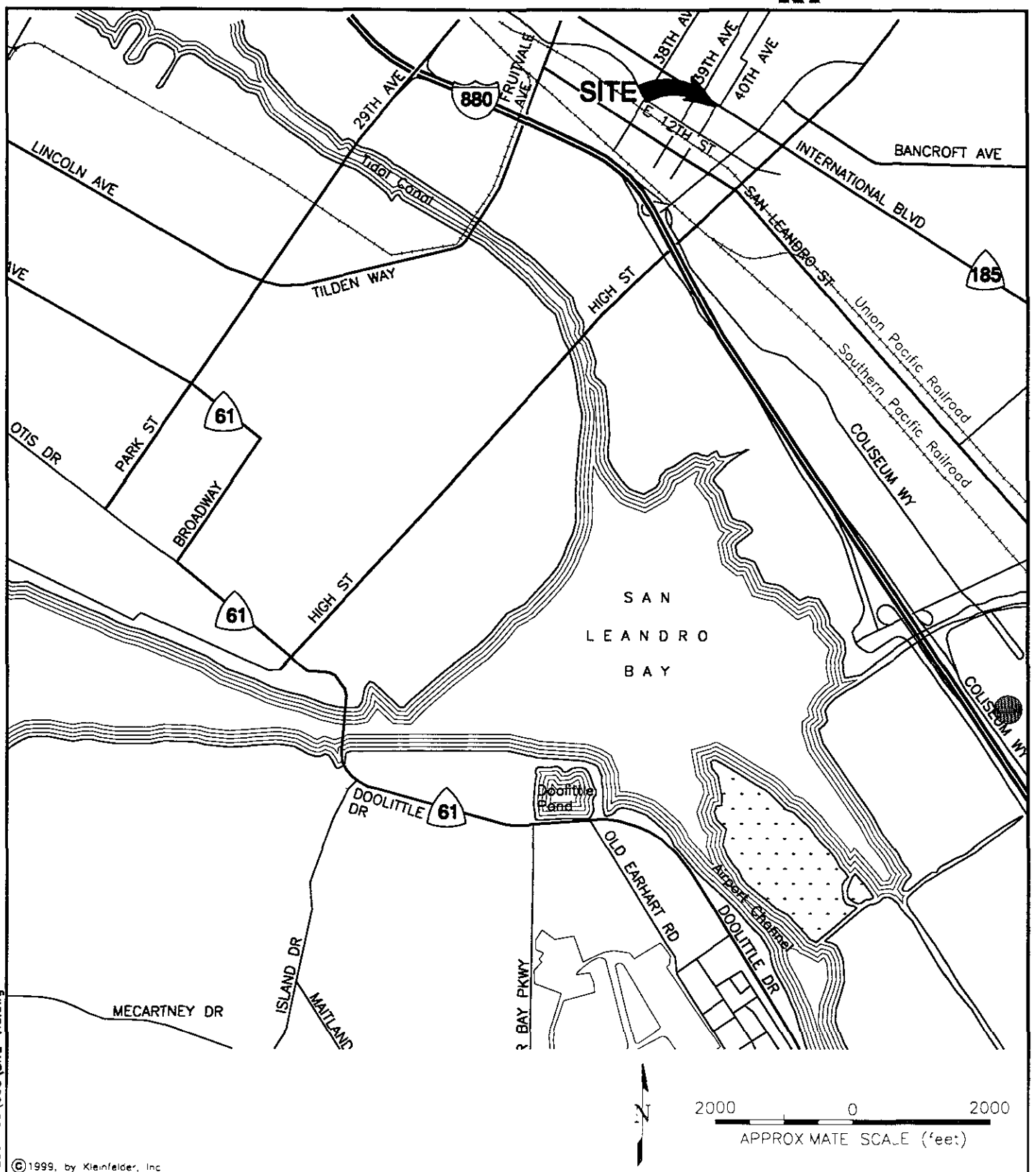
Well ID No	HMW 1, HMW 2, and HMW-3 are New Genico wells MW-1, MW-2, and MW-3, respectively
TPH	Total petroleum hydrocarbons
ND	Not detected above reporting limit
NR	Not Reported due to laboratory instrument conditions
	Not analyzed
	Measured in the field
1	Data prior to 3 17 98 was obtained from a report prepared by ATC Associates Inc. (1/8/98)
2	Positive result by initial USEPA Method 8020 analysis/confirmation performed by USEPA Method 8260 reports ND
3	Dissolved oxygen measured prior to purging
4	Laboratory reported concentration for diesel is estimated due to overlapping fuel patterns
5	Samples collected on 10/3/97
6	Maximum Contaminant Level
	California Drinking Water Advisory Level

Table 4
Groundwater Parameters Measured Prior to Sampling
New Genico Facility
3927 E. 14th Street Oakland, California

Well I.D. No.	Sample Date	pH	Specific Conductivity (µmhos/cm)	Temperature (°F)
HMW-1	8/22/96	-----	-----	-----
	2/25/97	4.55	680	75.0
	5/28/97	7.70	810	70.4
	9/2/97	6.73	1074	73.4
	11/26/97	6.93	966	70.0
	3/17/98	6.16	1,163	67.6
	6/30/98	6.80	1,006	71.6
	9/24/98	6.69	1,080	70.3
	12/16/98	6.70	830	70.2
HMW-2	8/22/96	-----	-----	-----
	2/25/97	4.65	450	72.1
	5/28/97	7.80	480	69.4
	9/2/97	6.82	762	74.8
	11/26/97	6.99	731	69.8
	3/17/98	6.62	741	66.0
	6/30/98	6.88	610	71.6
	9/24/98	6.81	650	71.9
	12/16/98	6.02	590	69.9
HMW-3	8/22/96	-----	-----	-----
	2/25/97	5.87	390	63.3
	5/28/97	8.00	400	67.6
	9/2/97	6.97	669	70.9
	11/26/97	6.87	665	67.8
	3/17/98	6.43	734	65.9
	6/30/98	6.96	640	71.6
	9/24/98	6.93	650	69.8
	12/16/98	6.94	610	67.7
HMW-4	11/26/97	-----	-----	-----
	3/17/98	6.66	769	66.3
	6/30/98	6 98	690	73 4
	9/24/98	7 05	620	70 9
	12/16/98	7 12	620	71 0

NOTES

'---' = Not Measured



CAD FILE C:_KA-PROJ\SJ\12304760\003\SITE-VIC.dwg

KLEINFELDER

DRAFTED BY L Sue	DATE 1-8-99	
CHECKED BY B Theyskens	DATE 1-8-99	

SITE VICINITY MAP

NEW GENICO FACILITY
3927 INTERNATIONAL BOULEVARD
OAKLAND, CALIFORNIA

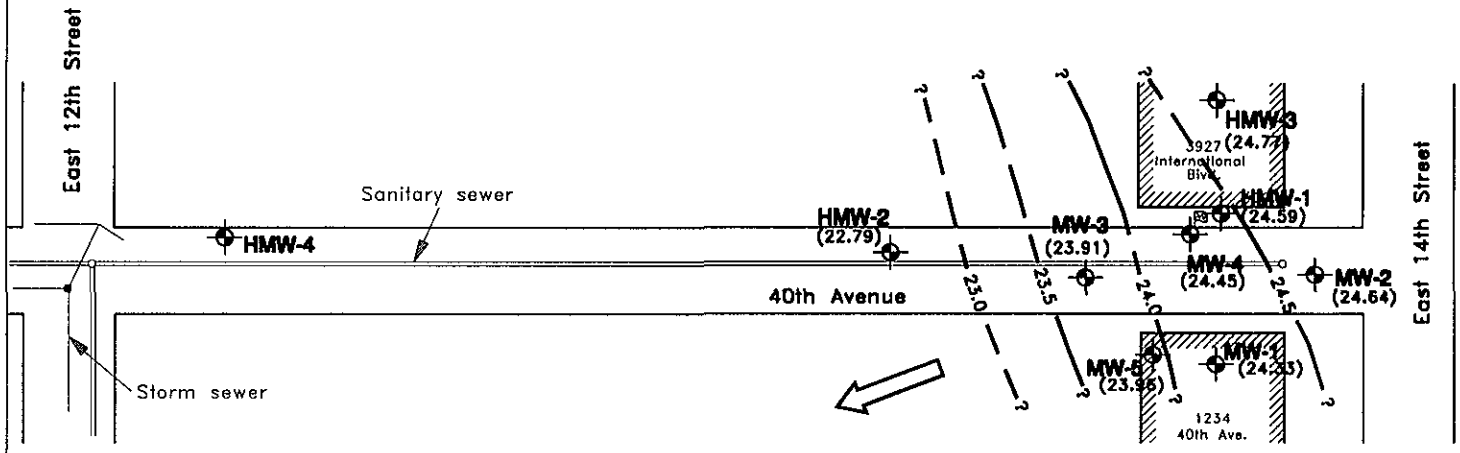
PROJECT NO 12-3047-60

PLATE

1

LEGEND

- PERMANENT GROUNDWATER MONITORING WELL
- (24.77) GROUNDWATER CONTOUR (feet, mean sea level)
- 23.5 GROUNDWATER ELEVATION (feet, mean sea level) MEASURED DECEMBER 1998
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW



60 0 60

APPROXIMATE SCALE (feet)

REFERENCE
Groundworks Environmental, "Figure 2. Groundwater Elevation Contours March 1998, " dated 4/9/98

KLEINFELDER

DRAFTED BY: L. Wahlgren	DATE: 1-8-99
CHECKED BY: B. Theyskens	DATE: 1-8-99

SITE PLAN

NEW GENICO FACILITY
3927 EAST 14TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 12-3047-60

PLATE **2**

KLEINFELDER

CAD FILE C:_KA-PROJ\SJ\12304760\003\SITEPLAN.dwg

APPENDIX A
KLEINFELDER FIELD PROTOCOL

A-1 FIELD PREPARATION

Before performing work in the field, environmental staff review the scope of work, prepare a health and safety plan, coordinate the work to be done with their supervisor, assemble the necessary sample containers, and check, calibrate and clean equipment to be used in the field. When underground utilities may exist at a site where subsurface soil samples are being collected, USA Underground is contacted with the boring locations and the scheduled date of drilling, or a utility locating firm is employed to check the boring locations.

A-2 DEPTH-TO-WATER MEASUREMENTS

Depth-to-water measurements are made in all the wells at the site prior to initiating purging and sampling, including wells that are not to be sampled. The depth-to-water measurements are made consecutively in as short a time as possible to reduce potential errors due to daily variations in the water table.

Depth-to-water (DTW) is measured in the well to within 1/100 of a foot using a conductivity-based water level indicator. Measurements are taken from the north or marked side of the top of casing of each well. These marks on the casings have been surveyed by a licensed survey relative to mean sea level (MSL). The conductivity probe and cable are rinsed in deionized water before and after measuring the first well, and after each subsequent well. The same water level indicator is used in each well.

A-3 WELL SAMPLING

The Kleinfelder sampling protocol for wells is as follows:

- The depth-to-water is measured using a conductivity-based water level indicator.
- The volume of water standing in each well is calculated by subtracting the depth-to-water measurement from the total depth of the well and multiplying by the appropriate volume conversion factor.
- A minimum of three well volumes of water is purged from each well using a submersible pump. The pump is decontaminated prior to use in each well by washing with liquinox™ and rinsing with distilled water. Pump tubing is replaced prior to purging each well. Purgewater is placed in 55-gallon drums.
- Physical parameters of pH and temperature are monitored for stability during purging.
- Sample bottles, provided by the analytical laboratory are filled from a new sterile disposable bailer at each well
- Samples are immediately labeled and placed in an iced sample container. At the end of each day, the samples are delivered to the analytical laboratory, under chain-of-custody control

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. HMW-3

Date: 12/16/98 Weather: Sunny

Project: Hansauer Submitted By: L. Wahlgren

Project No.: Reviewed By:

Sheet 1 of 1

Date: 12/16/98

Date:

Purpose of Log ☐ Development ☑ Sampling

Equipment & Decontamination

Purging Equipment	(Bailer)	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other:
Sampling Equipment	(Bailer)	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other:

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.				
Calibration Date/Time	NA			

Decontamination Methods	Wash	Rinse I	Rinse II	Rinse III
	DI Tap Other / Steam Hot Cool	DI Tap Other / Steam Hot Cool	DI Tap Other / Steam Hot Cool	DI Tap Other / Steam Hot Cool
TSP Alconox Other:				
Vol. (gal):				
Source:				

Decon. Notes:

Well Security: good fair poor Well Integrity: good fair poor Locked: yes no

Purge Volume (CV) T.D. − DTW × Factor × 1 C.V = 1.90 gal

Well Diam.: ☐ 2" ☐ 4" 17.54 ft. − 6.71 ft. × (2"=0.175, 4"=0.663) × 3 = 5.70 gal

Free Product?: Odor: no (yes) Floating Product: none (sheen) film ____ feet thick

Development / Purge Record

								Replicate Goals
Time (24-hr)	12:45	12:49	12:54	12:59	13:05			
Gallons Purged	0	1.5	3.0	4.5	6.0			(dev. only)
Surged (minutes)	↑	[illegible]						±0.10
pH	S	7.94	7.09	7.00	6.94			±1°C
Temperature (°C)	T	70.1	68.4	68.0	67.7			±10%
Cond. (µmhos/cm)	A	630	620	670	610			±10%
Salinity (‰)	R							<50 NTUs
Turbidity (NTU's)	T							Colorless
Color	↓							±0.01'
Depth to Water								

Reference Point: TOC Other:

Sample Log

Sample #	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
HMW-3	13:22	3		VOA	HCL			Entech
"	"	2		VOA	—			
"	"	2		amber	—			
"	"	1	500ML	plastic	—			

Misc

Other Observations: D.O = 7.8% Redox = 138

Final Check: VOAs free of bubbles? (yes) / no / NA Well Locked? (yes) / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. HMW-4

Sheet 1 of 1

Date: 12/16/98 Weather: sunny

Project: Haushaver Submitted By: L. Wahlgren Date: 12/16/98

Project No.: Reviewed By: Date:

Purpose of Log ☐ Development ☒ Sampling

Equipment & Decontamination

Purging Equipment	~~Bailer~~	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other: peristaltic pump
Sampling Equipment	Bailer	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other: peristaltic pump

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.				
Calibration Date/Time	NA			

Decontamination Methods	Wash		Rinse I		Rinse II		Rinse III	
TSP / Alconox / Other:	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool
Vol. (gal):								
Source:								
Decon. Notes:								

Development / Purge Record

Well Security: good fair poor | Well Integrity: good fair poor | Locked: yes no

Purge Volume (CV) T.D. – DTW × Factor × 1 C.V = gal

Well Diam.: ☐ 2" ☐ 4" ft. – ft. × (2"=0.175, 4"=0.663) × = gal

Free Product?: Odor: (no) yes Floating Product: (none) sheen NO film feet thick

									Replicate Goals
Time (24-hr)	2:02	2:08	2:14	2:20	14:27				
Gallons Purged	0	0.5	1.0	1.5	2.0				(dev. only)
Surged (minutes)	↑								
pH	S	6.89	7.08	7.10	7.12				±0.10
Temperature (°C)	T	70.6	71.5	71.4	71.0				±1°C
Cond. (µmhos/cm)	A	630	610	610	620				±10%
Salinity (‰)	R								±10%
Turbidity (NTU's)	T	trace			→				<50 NTUs
Color	↓	colorless			→				Colorless
Depth to Water									±0.01'

Reference Point: TOC Other:

Sample Log

Sample #	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
HMW-4	17:31	3		VOA	HCl			Enseh
↓	↓	2		VOA	—			↓
		2		amber	—			
↓	↓	1	500 mL	plastic	—			

Misc

Other Observations: Redox: -34 D.O. 13.8%

Final Check: VOAs free of bubbles? yes / no / NA Well Locked? yes / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. MW-1

Sheet 1 of 1

Date: 12/16/98 Weather: Sunny

Project: Hawthorne Submitted By: L. Wahlgren Date: 12/16/98

Project No.: Reviewed By: Date:

Purpose of Log ☐ Development ☒ Sampling

Equipment & Decontamination

Purging Equipment	(Bailer)	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other:
Sampling Equipment	(Bailer)	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other:

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.				
Calibration Date/Time	NA			

Decontamination Methods	Wash		Rinse I		Rinse II		Rinse III	
TSP / Alconox / Other:	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool
Vol. (gal):								
Source:								
Decon. Notes:								

Well Security: good fair poor Well Integrity: good fair poor Locked: yes no

Purge Volume (CV) T.D. − DTW × Factor × 1 C.V = 2.23 gal

Well Diam.: ☐ 2" ☐ 4" 19.42 ft. − 6.66 ft. × (2"=0.175, 4"=0.663) × 3 = 6.69 gal

Free Product?: Odor: no (yes) Floating Product: (none) sheen ND film ____ feet thick

Development / Purge Record

								Replicate Goals
Time (24-hr)	11:45	11:50	11:56	12:01	12:05			
Gallons Purged	0	2	4	6	7			(dev. only)
Surged (minutes)	↑			LW				
pH	S	6.29	6.62	~~6.65~~	6.70			±0.10
Temperature (°C)	T	69.7	70.5	70.3	70.2			±1°C
Cond. (µmhos/cm)	A	840	840	830	830			±10%
Salinity (‰)	R							±10%
Turbidity (NTU's)	T	heavy	—	—	D			<50 NTUs
Color	↓	brn	—	—	D			Colorless
Depth to Water								±0.01'

Reference Point: TOC Other:

Sample Log

Sample #	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
MW-1	12:28	3		VOA	HCl			Enfed
↓	↓	2		VOA	—			↓
		2		amber	—			
↓	↓	1	500 ml	plastic	—			

Misc

Other Observations: D.O. Redox -40

Final Check: VOAs free of bubbles? yes / no / NA Well Locked? yes / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. 11MW-2

Date: 12/16/98 Weather: Sunny — Sheet 1 of 1

Project: Hansen — Submitted By: L. Wohlgemuth — Date: 12/16/98

Project No.: — Reviewed By: — Date:

Purpose of Log ☐ Development ☒ Sampling

Equipment & Decontamination

Purging Equipment	(Bailer)	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other:
Sampling Equipment	(Bailer)	Disposable Bailer	Suction Pump	Submersable Pump	Dedicated Pump	Other:

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.				
Calibration Date/Time	NA			

Decontamination Methods (TSP, Alconox, Other:)	Wash	Rinse I	Rinse II	Rinse III
	DI Tap Other / Steam Hot Cool	DI Tap Other / Steam Hot Cool	DI Tap Other / Steam Hot Cool	DI Tap Other / Steam Hot Cool
Vol. (gal):				
Source:				
Decon. Notes:				

Development / Purge Record

Well Security: good fair poor — Well Integrity: good fair poor — Locked: yes no

Purge Volume (CV): T.D. − DTW × Factor × 1 C.V = 1.94 gal

Well Diam.: ☒ 2" ☐ 4" 17.72 ft. − 6.64 ft. × (2"=0.175, 4"=0.663) × 3 = 5.82 gal

Free Product?: Odor: (no) yes — Floating Product: (none) — sheen NO film ____ feet thick

								Replicate Goals
Time (24-hr)		10:42	10:50	10:56	11:00			
Gallons Purged	0	1.5	3.0	4.5	6.0			(dev. only)
Surged (minutes)	↑							
pH	S	6.03	5.97	6.07	6.02			±0.10
Temperature (°C)	T	68.7	69.3	69.6	69.9			±1°C
Cond. (µmhos/cm)	A	670	640	610	590			±10%
Salinity (‰)	R							±10%
Turbidity (NTU's)	T	brase	→	→	→			<50 NTUs
Color	↓	colorless	→	→	→			Colorless
Depth to Water								±0.01'

Reference Point: TOC Other:

Sample Log

Sample #	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
11MW-2	11:15	3		VOA	HCl			Entech
↓		2		VOA	—			↓
		2		ambers	—			
↓		1	500 mL	plastic	—			

Misc

Other Observations: DO = 4.3% Redox = +73

Final Check: VOAs free of bubbles? yes / no / NA — Well Locked? yes / no / NA

KA KLEINFELDER

RECORD OF WATER LEVEL MEASUREMENTS

Date: 12/16/98 Weather: Sunny Sheet 1 of 1

Project: Hausbauer Submitted By: Lesa Wahlgren Date: 12/16/98

Project No.: 12-30760 Reviewed By: _____ Date: _____

Instrument Number:

Well Number	Time (opened/measured)	Sensitivity Setting	Measuring Point	Measurement	Replicate Measurements (if requested)		DTP	Notes			(locked? ✓)
	(24-hr)	(est. %)	(M.P.)	1	2	3					
HMW-1	10:25			6.66	6.66		19.42				
HMW-2	10:16			6.64	6.64		17.72				
HMW-3	10:21			6.71	6.71		13.54				
HMW-4											

M.P.: TOC, GS, Cover ring, Other.

All Wells Locked -- YES / NO

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Kleinfelder
1362 Ridder Park Drive
San Jose, CA 95131
Attn: Lars Wahlgren/Bill Theyskens

Date: 12/30/98
Date Received: 12/17/98
Project: 12-304760
PO #.
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	12/16/98			12/16/98			12/16/98				
Sample Time	12:28			11:15			13:22				
Lab #	E22572			E22573			E22574				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	12/23/98			12/23/98			12/23/98				
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
TPH-Motor Oil	**1,400**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
Analysis Date	12/23/98			12/23/98			12/23/98				
TPH-Gas	**4,500**	4.0	200	**5,300**	10	500	**ND**	1.0	50	50	8015M
MTBE	**NR** [1]			**NR** [1]			**NR** [1]			5.0	8020
Benzene	**290**	4.0	2.0	**93**	10	5.0	**ND**	1.0	0.50	0.50	8020
Toluene	**39**	4.0	2.0	**25**	10	5.0	**ND**	1.0	0.50	0.50	8020
Ethyl Benzene	**85**	4.0	2.0	**160**	10	5.0	**ND**	1.0	0.50	0.50	8020
Xylenes	**100**	4.0	2.0	**53**	10	5.0	**ND**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. NR: MTBE not reported due to instrument conditions
2. Report amended 12/30/98
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

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KLEINFELDER SAN JOSE

Michelle L. Anderson Lab Director

Entech Analytical Labs, Inc.

CA ELAP# 2224

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Kleinfelder
1362 Ridder Park Drive
San Jose, CA 95131
Attn: Lars Wahlgren/Bill Theyskens

Date: 12/30/98
Date Received: 12/17/98
Project: 12-304760
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4										
Sample Date	12/16/98										
Sample Time	14:31										
Lab #	E22575										
	Result	DF	DLR							PQL	Method
Results in µg/Liter:											
Analysis Date	12/24/98										
TPH-Diesel	**ND**	1.0	50							50	8015M
TPH-Motor Oil	**ND**	1.0	50							50	8015M
Analysis Date	12/24/98										
TPH-Gas	**830**	1.0	50							50	8015M
MTBE	**NR** [1]									5.0	8020
Benzene	**11**	1.0	0.50							0.50	8020
Toluene	**ND**	1.0	0.50							0.50	8020
Ethyl Benzene	**2.7**	1.0	0.50							0.50	8020
Xylenes	**5.0**	1.0	0.50							0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. NR: MTBE not reported due to instrument conditions
2. Report amended 12/30/98
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Entech Analytical Labs, Inc.

CA ELAP# 2224

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Kleinfelder
1362 Ridder Park Drive
San Jose, CA 95131
Attn: Lars Wahlgren/Bill Theyskens

Date: 12/30/98
Date Received: 12/17/98
Project: 12-304760
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	12/16/98			12/16/98			12/16/98				
Sample Time	12:28			11:15			13:22				
Lab #	E22572			E22573			E22574				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	12/17-12/30/98			12/17-12/30/98			12/17-12/30/98				
Results in mg/Liter:											
Alkalinity	**400**	1.0	0.10	**360**	1.0	0.10	**280**	1.0	0.10	0.10	310.1
Ferrous Iron	**0.17**	1.0	0.010	**1.1**	1.0	0.010	**ND**	1.0	0.010	0.010	SM3500
Nitrate-Nitrogen	**5.1**	1.0	0.10	**ND**	1.0	0.10	**4.0**	1.0	0.10	0.10	353.3
Sulfate	**33**	1.0	0.10	**ND**	1.0	0.10	**55**	1.0	0.10	0.10	375.4

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

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Kleinfelder
1362 Ridder Park Drive
San Jose, CA 95131
Attn: Lars Wahlgren/Bill Theyskens

Date: 12/30/98
Date Received: 12/17/98
Project: 12-304760
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	**MW-4**										
Sample Date	12/16/98										
Sample Time	14:31										
Lab #	**E22575**										
	Result	DF	DLR							PQL	Method
Analysis Date	12/17-12/30/98										
Results in mg/Liter:											
Alkalinity	**340**	1.0	0.10							0.10	310.1
Ferrous Iron	**1.2**	1.0	0.010							0.010	SM3500
Nitrate-Nitrogen	**ND**	1.0	0.10							0.10	353.3
Sulfate	**12**	1.0	0.10							0.10	375.4

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

PQL = Practical Quantitation Limit ND = Not Detected at or above DLR
DLR = Detection Reporting Limit

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2981223
Matrix: Water
Units: µg/L

Date Analyzed: 12/23/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP % R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	39	**98**	37	**94**	4.1	25	76-112
Toluene	8020	<0.50	40	ND	40	**101**	38	**94**	6.9	25	78-112
Ethyl Benzene	8020	<0.50	40	ND	41	**104**	41	**102**	1.9	25	77-114
Xylenes	8020	<0.50	120	ND	120	**100**	118	**98**	1.9	25	78-115
Gasoline	8015	<50.0	500	ND	450	**90**	431	**86**	4.2	25	71-114

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW981207
Matrix: Water
Units: µg/L

Date analyzed: 12/22/98
Date extracted: 12/22/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP %R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	776	**82**	764	**80**	1.6	25	62-131

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW981206
Matrix: Water
Units: µg/L

Date analyzed: 12/11/98
Date extracted: 12/11/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP %R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	862	**91**	808	**85**	6.5	25	62-131

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

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525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: Kleinfelder
Address: 1362 Ridder Park Dr
San Jose, CA
Contact: Lars Wahlgren/Bill Theyskens
Telephone #: (408) 436-1155
Date Received: 12-17-98
Turn Around: normal

Project ID: 12-304760
Purchase Order #:

Sampler/Company: Lars Wahlgren Kleinfelder
Telephone #: 408 436-1155

Special Instructions/Comments:

LAB USE ONLY

Samples arrived chilled and intact:

Yes No

Notes: No Si Clean on TPHd or TPHmo per Bill (JD) 12/18/98

Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPHg	TPHd TPHmo	Ferrous Iron	Nitrate Sulfate Alkalinity	MTBE BTEX	added per Bill Theyskens 12/30/98 (AA)		
E22572	MW-1		H_2O	12/16/98	12:28	HCl	voa w/HCl	X				X			
	↓					—	1 liter amber		X						
						—	voa no pres			X					
					↓	—	500 ml. plastic				X				
E22573	MW-2				11:15	HCl	VOA	X				X			
						—	1 liter amb		X						
						—	VOA			X					
	↓	↓	↓	↓	↓	—	500 ml plastic				X				

Relinq By	Received By	Date	Time
SAMPLE REFRIGERATOR [signature]	Jeremiah Mglii	12-17-98	10:30
Jeremiah [signature]		12-17-98	11:10
	[signature]	12/17/98	11:30 Am

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SJ, CA
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Turn Around: normal

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Telephone #: (408) 436-1155

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LAB USE ONLY

Samples arrived chilled and intact:

Yes No

Notes:

Lab #	Sample ID	Grab/Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPHg	TPHd TPHmo	Ferrous Iron	Nitrate Sulfate Alkalinity	MTBE BTEX	added per Bill Theyskens 12/30/98		
E22572	MW-3		H_2O	12/16/98	13:22	HCl	VOA	X				X			
	↓		↓	↓	↓	—	1 liter amber		X						
	↓		↓	↓	↓	—	VOA			X					
	↓		↓	↓	↓	—	500 ml plastic				X				
E22575	MW-4	↓	↓	↓	14:31	HCl	VOA	X				X			
	↓	↓	↓	↓	↓	—	1 liter amber		X						
	↓	↓	↓	↓	↓	—	VOA			X					
	↓	↓	↓	↓	↓	—	500 ml plastic				X				

Relinq By	Received By	Date	Time
SAMPLE REFRIGERATOR [signature]	Severnin Malia [signature]	12-17-98	10:30
Severnin Malia [signature]		12-17-98	11:10
	[signature]	12/17/98	11:30 pm