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14/10

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

> Re: Errata for Third Quarter 1998 Groundwater Monitoring Report 3927 East 14th Street Oakland, California

Dear Mr. Chan:

Enclosed is a copy of the *Errata for Third Quarter 1998 Groundwater Monitoring Report* prepared for Ruben Hausauer's 3927 East 14th Street, Oakland, California site.

If you have any questions or comments, please call 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

- Benzene concentrations decreased in wells HMW-1, HMW-2 and HMW-4. Benzene remained non-detect (ND) in HMW-3 for the third 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 wells HMW-1, HMW-2 and HMW-4. Toluene and ethylbenzene remained ND in HMW-3 for the third consecutive quarter. Total Xylenes were reported at low levels in HMW-3 for the first time since August 1996. All three constituents that were reported were below their respective MCLs.
- Reported MtBE concentrations using EPA Method 8020 in HMW-4 were consistent with previous findings. MtBE was reported as ND in HMW-2 and HMW-3. MtBE was reported (using EPA Method 8020) in HMW-1 at 430 µg/L. "Confirmation" analysis by GCMS (EPA method 8260) was performed for HMW-1 and was reported ND, indicating the EPA 8020 result was likely a "false positive."

Historically, when site samples reported to contain MtBE were re-analyzed using GCMS, the result was ND. Reports of detected MtBE using USEPA Method 8020 analyses are therefore suspected to have been "false positives."

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.

Available data indicates the hydrogeologic regime beneath the site is relatively consistent from well to well. This would suggest that all other things being equal, groundwater characteristics should be relatively uniform proximate to the site. During this quarter, dissolved oxygen concentrations this quarter are less than 1 mg/L, which indicate a relatively oxygen-deficient environment. It has been observed, however, that concentrations of dissolved oxygen are lower downgradient from the former UST location, than upgradient. The highest concentrations were measured in upgradient well HMW-3. The two wells downgradient from, and closest to, the former USTs (HMW-1 and HMW-2) had the lowest dissolved oxygen concentrations, suggesting biodegradation within the plume is occurring, reducing oxygen concentrations. The second highest concentration was measured in the well located furthest downgradient of the former UST location (HMW-4), however, the high concentration of dissolved oxygen in HMW-4 may be partially due to the fact that the dissolved oxygen was measured in a container at the ground surface (the dissolved oxygen probe does not fit down the 0.6-inch inner diameter well). The exposure to air at the surface would likely result in a higher reading than would be indicated if the measurement was made in the well. When bioremediation occurs in relatively anaerobic environments, such as this, 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 highest in upgradient well HMW-3, low in HMW-1 which is located just downgradient of the former UST area, and ND in HMW-2 and HMW-4, located further downgradient of the former UST location, suggesting the occurrence of anaerobic bioremediation;
- Sulfate concentrations were highest in upgradient well HMW-3, low in HMW-4 which
 is furthest downgradient of the former UST area, and ND in HMW-1 and HMW-2,
 located just downgradient of the former UST location, suggestive of the occurrence of
 anaerobic bioremediation.
- Ferrous iron was reported ND for all four wells; and
- The redox potential in cross-to up gradient well HMW-3 was positive. Redox potentials in the remaining wells were negative, suggestive of the occurrence of anaerobic bioremediation.

Quality Control Results

A trip blank was stored with the samples collected and submitted to the laboratory for analysis. The trip blank was analyzed for TPHg, BTEX and MtBE. None of these constituents were detected in the trip blank.

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.

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Sincerely,

KLEINFELDER, INC.

Neal Siler, R.E.A.

Environmental Group Manager

Attachments

William G. Theyskens, C.E.G., C.HG.

Project Manager

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

Math	-					75			* *****				Ferrous	Dissolved	
2.55 97 2.000 ND 5.400 760 110 260 260 ND	oz CElls#	Sample Date						•	•	• •					
S 18 97 2,000 600 6,600 1,100 100 290 340 330	HMW-I	8 22 96	ND	ND	7,400	1,200	170	530	490					*****	
11.26 of 3 17.00 3,700 4,000 460 460 200 100 ND 2 2.0 12 4.20 0.21 1.14 11.26 of 3 4,700 3,000 7,500 1,000 120 270 330 ND 2 0.6 ND < 0.01 2.0 1.14 11.26 of 3 ND 16,000 11,000 2,100 290 600 760 1,200 ND 0 8 0.16 0.8 6.64 6.81 0.8		2,25.97	2,000	ND	5,400	760	110	260	260	ND					****
1126 97 47000 37000 7,500 1,000 120 270 320 ND 2 0.6 ND <0.01 2.0 +105		5 28 97	2,000	600	6,600	1,100	100	290	340						*****
Section Sect		9/2-97	8,700	3,700	4,000	460	40	200	100		2.0	12	4.20	0.24	-14.4
0.00		EL/26-97	4,700	3,000	7,500	1,000	120	270	320	ND ²	0.6	ND	< 0.01		+105
10		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
12 16 98		6/30/98	ND	5,900		1,300	160	390	390		0.4	20	0.96	0.77	-46.70
HMW 2		9/24/98	ND	6,600	7,100	890	89	230	180	430/ND ²	1.4	ND	ND	0.41	-17
12 25 9 90		12 16 98	ND	1,400	1,900	290	39	85	100	NR	5.1	33 0	0.17	NR	-40
\$\begin{array}{c c c c c c c c c c c c c c c c c c c	HMW 2	8 77 00	7,400 ⁴	2,100	6,300	170	57	370	120		2100	2100			*****
92 97		2.25/97	90	ND	8,400	150	35	280	70	ND ²	ND	ND			
HMW 3 8 22.96 ND ND ND ND ND ND ND N		5 18 97	130	200	6,000	170	35	170	67	150	200	200			
HAIW 3		9.2.97	4,502	ND ⁵	8,000	210	30	160	90	ND ²	ND	0.5	1.37	0.38	+25 2
HMW 1 11 26 97 400 ND ND ND ND ND ND ND		11-26-97	180	ND	1,600	41	7 5	40	10	31	ND	ND	0.03		+ 52
HMW 3 R 22,498 ND ND 2,900 32 1.5 38 16 ND ND ND ND ND 0.32 -16		3/17/98	ND	ND	8,600	200	96	410	120	330	ND	0.8	0.01	0.48	
HMW 3 8 22.96 ND ND ND 1,300 3 6 8 12 ND ND ND		6 30 98	ND	ND	7,300	180	52	240	88	170	ND	ND	0.01	0.43	-45 50
HMW 3		9/24/98	ND	ND	2,900	32	1.5	38	16	ND	ND	ND	ND	0.32	
2 '25 97		12 16 98	ND	ND	5,300	93	25.0	160	53	NR	ND	ND	1.1	0.38	-73
5 28 97 ND ND <t< td=""><td>HMW-3</td><td>8 22/96</td><td>ND</td><td>ND</td><td>1,300</td><td>3</td><td>6</td><td>8</td><td>12</td><td>44-4</td><td>ND</td><td>ND</td><td></td><td></td><td></td></t<>	HMW-3	8 22/96	ND	ND	1,300	3	6	8	12	44-4	ND	ND			
9:2 97 ND ND ND 140 ND		2 25 97	70	ND	150	ND	ND	ND	ND	ND	ND	ND		**	
11 26 97 50 ND 70 0.6 0.8 0.8 ND ND ND 3.5 50 0.01 1.4 +102		5 28 97			80	ND	ND	0.60	ND	ND	ND	ND			
3/17 98 ND 200 ND 1.1 43 ND 0 63 91.90		9/2 97	ND 5	ND ⁵	140	ND	ND	2.1	ND	ND		53	0.03	0.88	+98.6
6 30 98 ND 0.76 ND 40 51 ND 0.25 95.70 9.21 98 ND		11.26.97	50	ND	70	0.6	0.8	0.8	ND	ND	3.5	50	0.01		+102
9.24 98 ND ND 58 ND		3/17-98	ND	200	ND	ND	ND	ND	ND	ND	1.1	43	ND	0 63 '	
HMW 4 11 26 97 400 ND ND ND ND ND ND ND ND ND		6 30 98	ND	ND	ND	ND	ND	ND	ND	ND	4 0	51	ND	0.25	95.70
HMW 4 11 26 97 400 ND 1,600 4.2 3.1 1.7 5.9 ND		9,21.98	ND	ND	58	ND	ND	ND	0.76	ND	4.9	95	ND	0.63	67
3 17 98 ND ND 1,300 20 1.4 6.8 3.0 19 ND 8.6 0.12 2.4 1 - 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 0.58 - 17		12/16/98	ND	ND	ND	ND	ND	ND	ND	NR	4.0	55	ND	0.71	138
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 0.58 -17	HMW-4	11-26-97	400	ND	1,600	4.2	3.1	1.7	5.9	ND			,		
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 0.58 -17		3.17.98	ND	ND	1,300	20	1.4	6.8	3.0	19	ND	86	0.12	2.4	-26.67
		6/30.98	ND	ND		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	0.58	-17
		12/16.98	ND	ND	830	11.0	ND	2.70		NR	ND	12	1.20	12	-34



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

Well ED No	Sample Date	IPH as Diesel	TPH as motor oil	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert Butyl Ether	Nitrate	Sultate	-	Dissolved Oxygen	Redox Potential
		-μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/l.)	(mV)
ERIP 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								7					
MCT '					1.0	150	700	1,750	35 ′					

NOTES

HMW 1 HMW 2 and HMW-3 are New Genico wells MW-1, MW-2, and MW-3, respectively
Total petroleum hydr ocarbons
Not detected above reporting limit
Not Reported due to laboratory instrument conditions
Not analyzed
Measured in the field
Data prior to 3 17 98 was obtained from a report prepared by ATC Associates Inc. (1/8/98)
Positive result by initial USEPA Method 8020 analysis/confirmation performed by USEPA Method 8260 reports ND
Dissolved oxygen measured prior to purging
Laboratory reported concentration for diesel is estimated due to overlapping fuel patterns
Samples collected on 10/3/97
Maximum Contamina nt Level

California Drinking Water Advisory Level



