Woodward-Clyde

Engineering & sciences applied to the earth & its environment

January 15, 1995

Ms. Susan Hugo
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Continental Baking Company, 1010 46th Street, Oakland, CA
Quarterly Groundwater Monitoring Report

Dear Ms. Hugo:

In response to your letter to Mr. Fred Dannecker, Continental Baking Company (CBC), requesting quarterly groundwater monitoring reporting, this letter report is being submitted. Woodward-Clyde Consultants is providing environmental consulting services to CBC and is submitting this report on their behalf.

GROUNDWATER ELEVATION

Water level measurements were performed on October 27 and November 30, 1994 and January 3, 1995 by WCC personnel. Water levels were measured in monitoring wells MW-1, 2 and 3 with an electronic water level sounder and recorded to the nearest 0.01 foot. Table 1 summarizes the groundwater elevation variation in the three monitoring wells since the first investigation at the CBC Oakland facility in May, 1994. Figure 1 is a location map of the CBC facility. Figures 2, 3, and 4 are groundwater elevation contour maps for the last three months reported in the present quarterly report.

The reported results from the water elevation measurements are the following:

- Since October, 1994, The groundwater elevation has ranged from about 49 to 55 feet above mean sea level (MSL).
- The groundwater flow direction was estimated to be towards the southwest.

The reported results during this quarter are generally consistent with previous results. The groundwater elevation variation may be attributed to seasonal and precipitation variations.

Woodward-Clyde Consultants • A subsidiary of Woodward-Clyde Group, Inc.
500 12th Street, Suite 100 • Oakland, California 94607-4014
510-893-3600 Fax 510-874-3268

ANALYTICAL RESULTS

Sampling activities were performed in November, 1994 by WCC personnel. A copy of the field water sample logs are attached.

Prior to well development and sampling, an oil/water interface probe was used to detect the presence of an immiscible layer. No measurable immiscible layer was detected in any of the wells.

The wetted casing volume was calculated for each well and approximately 4 casing volumes were removed from each well prior to sampling. In addition to the groundwater samples collected from the three monitoring wells, one duplicate sample was collected from well MW-3 and labelled MW-4. Samples were submitted for analysis for Total Petroleum Hydrocarbons (TPH) and quantified as Diesel (TPHd, modified EPA Method 8015) and gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylene (BTEX, EPA Method 8020) and Total Recoverable Petroleum Hydrocarbons by Standard Method 5520BF. Sample analyses were performed by Anametrix Laboratories, San Jose, California. Copies of the laboratory data sheets and the chain-of-custody form are attached.

A quality assurance/quality control review of the analytical data was performed by a WCC chemist. The results of the review indicated that the data are of acceptable quality.

The reported results from the November, 1994 sampling and analysis effort are summarized in Table 2, and are the following:

- TPHg was detected at a concentration of 29000 and 100 µg/L in MW-1 and 3 respectively.
- TPHd was detected at a concentration of 1300 and 85 µg/L in samples from wells MW-1 and 3 respectively.
- Concentrations of BTEX were detected in monitoring well MW-1 and MW-3.

The reported results from this sampling and analysis effort are generally consistent with results reported for samples from these wells in August, 1994 although gasoline concentrations have increased, possibly because of the elevated groundwater contacting impacted soil.

If you have any questions, please feel free to phone me at (510) 874-3138.

Sincerely,

Jo Beth Folger

Attachments

c: Fred Dannecker, CBC-SF
Carl Eklund, CBC-SL
Jim Hummert, WCC-SL

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION
CONTINENTAL BAKING COMPANY, OAKLAND, CA

Well Identification	Date	Top of Casing Elevation (feet above MSL)	Depth to water (feet below top of casing)	Water Surface Elevation (feet above MSL)
MW-1	5/26/94	61.84	9.27	52.57
	7/29/94	61.84	9.81	52.03
	8/26/94	61.84	9.87	51.97
	10/4/94	61.84	9.89	51.95
	10/27/94	61.84	9.94	51.90
	11/30/94	61.84	8.92	52.92
	1/3/95	61.84	8.79	53.05
MW-2	5/26/94	63.10	9.30	53.80
	7/29/94	63.10	9.70	53.40
	8/26/94	63.10	9.89	53.21
	10/4/94	63.10	9.86	53.24
	10/27/94	63.10	9.96	53.14
	11/30/94	63.10	8.95	54.15
	1/3/95	63.10	8.15	54.95
MW-3	5/26/94	62.51	12.88	49.63
	7/29/94	62.51	13.61	48.90
	8/26/94	62.51	13.71	48.80
	10/4/94	62.51	13.74	48.77
	10/27/94	62.51	13.77	48.74
	11/30/94	62.51	11.85	50.66
	1/3/95	62.51	12.09	50.42

TABLE - 2

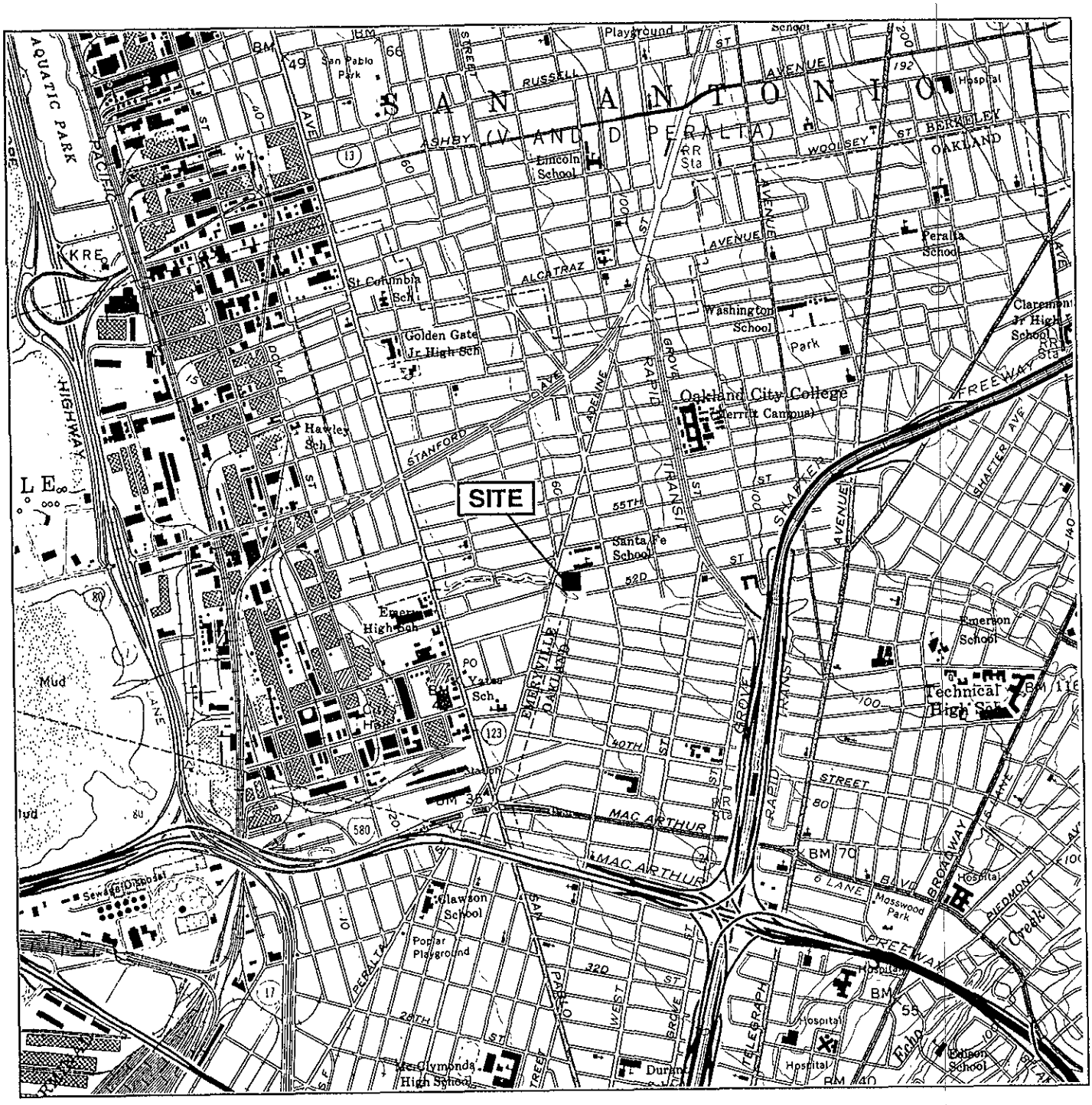
SUMMARY OF ANALYTICAL RESULTS
CONTINENTAL BAKING COMPANY, OAKLAND, CALIFORNIA

Parameters		TPH diesel	TPH gasoline	TPH BTEX				
				benzene	toluene	ethyl-benzene	tot. zylenes	tot. oil & grease
EPA Method		8015		8020				5520 BF
Units		(µg/L)		(µg/L)				(mg/L)
Well Number	Date							
MW-1	5/26/94	1300	12000	57	340	370	3100	<5.0
	8/26/94	510[1]/650[1]	6700/8400	22/35	71/97	310/410	1000/1400	<5.0/<5.0
	11/30/94	1300	29000	480	1100	1200	5300	<5.0
MW-2	5/26/94	<50/<50	<50/<50	0.50/<0.50	0.50/<0.50	0.50/<0.50	0.50/<0.50	<5.0
	8/26/94	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/30/94	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0
MW-3	5/26/94	99	<50	<0.50	<0.50	<0.50	1.7	<5.0
	8/26/94	66[2]	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/30/94	78/85	100/100	<0.50/1.9	<0.50/0.50	<0.50/1.0	2.1/4.3	<5.0

Results of duplicate sample analyses are shown by a dash ("/")

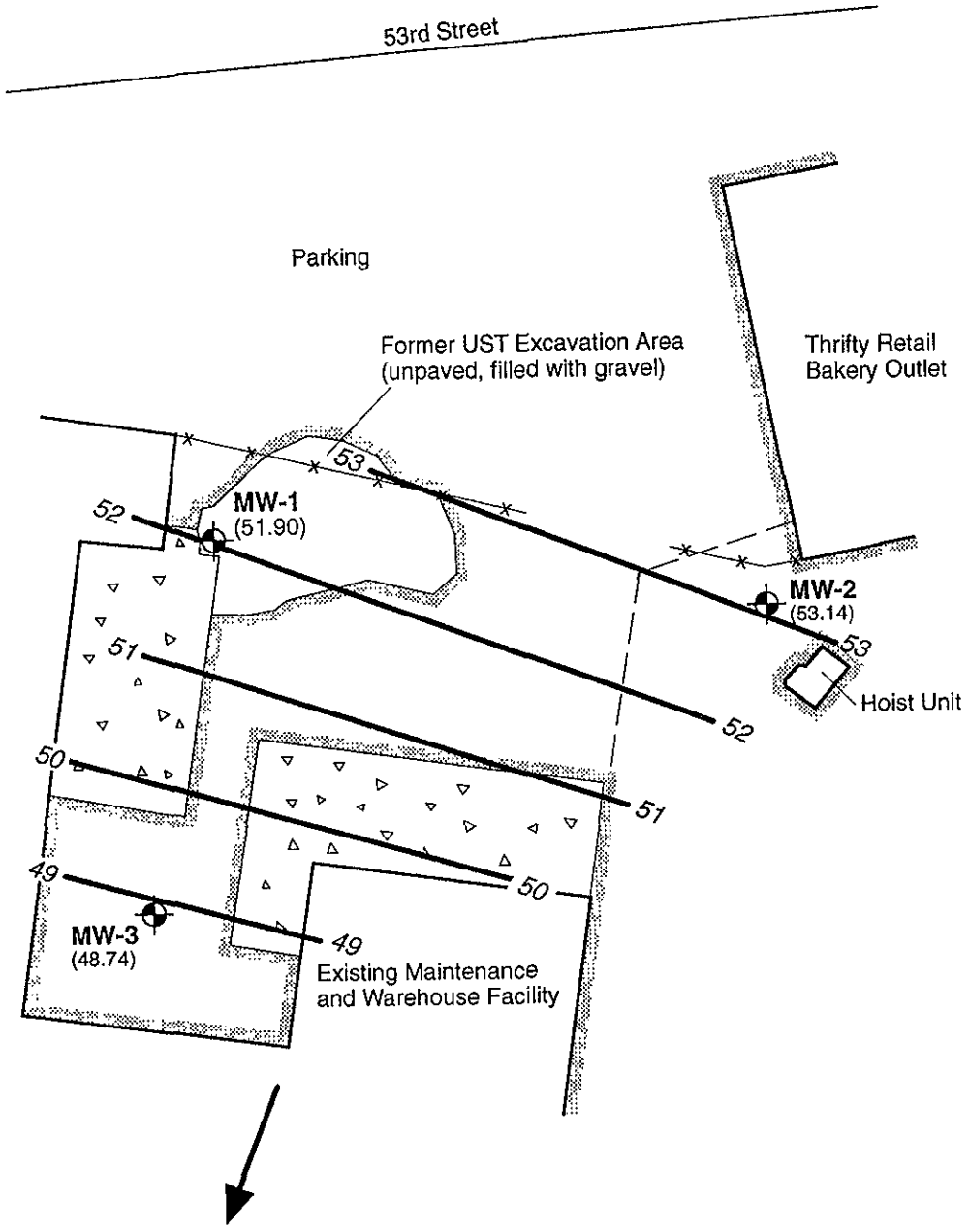
(1) Primarily due to lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.

(2) Primarily due to heavier petroleum product of hydrocarbon range C18-C36.



Project No. 92CB040	Continental Baking Company 1010 46th Street Oakland, California	SITE LOCATION	Figure 1
Woodward-Clyde Consultants			

92CB040-0000/061893



LEGEND

52——52 Approximate Groundwater Contour (feet above mean sea level)

MW-1 Approximate Well Location

Asphalt

Concrete

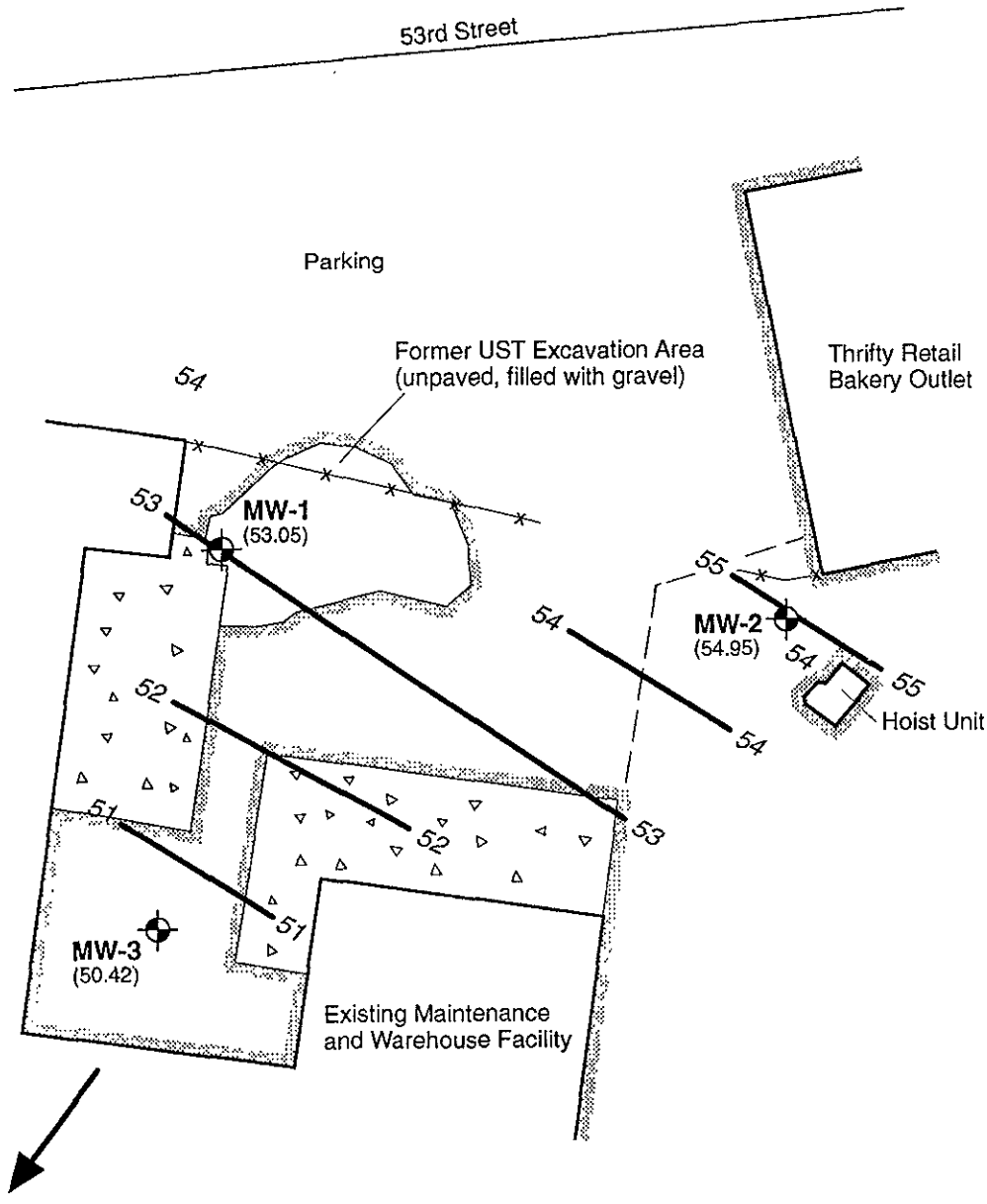
N

0 20 40

feet

Project No. 92CB040	Continental Baking Company 1010 46th Street Oakland, CA	GROUNDWATER ELEVATION CONTOURS OCTOBER 27, 1994	Figure 2
Woodward-Clyde Consultants			

92CB040-0010/011095/gos



LEGEND

52——52 Approximate Groundwater Contour (feet above mean sea level)

MW-1 Approximate Well Location

Asphalt

Concrete

N

0 20 40

feet

Project No. 92CB040	Continental Baking Company 1010 46th Street Oakland, CA	GROUNDWATER ELEVATION CONTOURS JANUARY 3, 1995	Figure 4
Woodward-Clyde Consultants			

92CB040-0010/011095/gos

Sample No.

WATER SAMPLE LOG

Sample No. MW-1

Project No.: 92CB040 Date: 11/30/94

Project Name: CBC-Oakland

Sample Location: MW-1

Well Description: 4" sch. 40 PVC w/ locking cap

Weather Conditions: clear, cool

Observations / Comments: 9/16" wrench and dolphin key to access

Quality Assurance

Sampling Method: Disposable PVC bailer

Method to Measure Water Level: 200' Solinst

Pump Lines: (New) / Cleaned Bailer Lines: (New) / Cleaned

Method of cleaning Pump / Bailer: N/A

pH Meter No.: 217255 Calibrated 7.00/10.01

Specific Conductance Meter No.: 13749 Calibrated red-lined

Comments: 20.2 - 8.92 = 11.28 X .66 = 7.44 X 4 = 29.8 gal.

Sampling Measurements

Water Level (below MP) at Start: 8.92 End: 8.94

Measuring Point (MP): North rim, top of casing

Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance (µmhos / cm)	Turbidity	Color	Odor	Comments
13:35	5	6.95	20	550	—	CLR	Poss H_2S HC? S.H.	
13:36	10	6.94	20	500	—	"	"	
13:41	15	6.85	20	500	—	"	"	
13:42	20	6.95	20	480	—	"	"	
13:47	25	6.90	20	500	—	"	"	
13:48	30	6.89	20	480	—	"	H_2S	

Total Discharge: 30 gallons Casing Volumes Removed: 4.08

Method of disposal of discharged water: 55 gallon drum

Number and size of sample containers filled: @1430

Collected by: J. HAUS

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(415) 893-3600

Sample No.

WATER SAMPLE LOG

Sample No. MW-2

Project No.: 92CB040 Date: 11/30/94

Project Name: CBC-Oakland

Sample Location: MW-2

Well Description: 4" sch. 40 PVC w/ locking cap

Weather Conditions: clear, cool

Observations / Comments: 9/16" wrench and dolphin key to access

Quality Assurance

Sampling Method: Disposable PVC bailer

Method to Measure Water Level: 200' Solinst

Pump Lines: (New) / Cleaned Bailer Lines: (New) / Cleaned

Method of cleaning Pump / Bailer: N/A

pH Meter No.: 217255 Calibrated 7.00/10.01

Specific Conductance Meter No.: 13749 Calibrated red-lined

Comments: 19.55 - 8.95 = 10.60 x .66 = 7 x 4 = 28

Sampling Measurements

Water Level (below MP) at Start: 8.95 End: 10.47

Measuring Point (MP): North rim, top of casing

Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance (µmhos / cm)	Turbidity	Color	Odor	Comments
13:02	5	6.78	20.5	396	—	CLR	ND	
13:03	10	6.79	20.5	381	—	"	"	
13:09	15	7.01	20.5	410	—	"	"	dry @ 18 gal.
13:58	20	7.08	20	389	—	"	"	
13:59	24	6.83	20	420	—	"	"	
14:02	28	6.88	20	412	—	"	"	

Total Discharge: 28 gal. Casing Volumes Removed: 4.05

Method of disposal of discharged water: 55 gallon drum

Number and size of sample containers filled: @ 15:00

Collected by: J. HAUS

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(415) 893-3600

Sample No.

WATER SAMPLE LOG

Sample No. MW-3

Project No.: 92CB040 Date: 11-30-94

Project Name: CBC - Oakland

Sample Location: MW-3

Well Description: 4" sch. 40 PVC w/locking cap

Weather Conditions: clear, cool

Observations / Comments: 9/16" wrench and dolphin key to access

Quality Assurance

Sampling Method: Disposable PVC bailer

Method to Measure Water Level: 200' Solinst

Pump Lines: (New) / Cleaned Bailer Lines: (New) / Cleaned

Method of cleaning Pump / Bailer: N/A

pH Meter No.: 217255 Calibrated 7.00/10.01

Specific Conductance Meter No.: 13749 Calibrated red-lined

Comments: 19.44-11.85=7.59 X.66=5 X4=20

Sampling Measurements

Water Level (below MP) at Start: 11.85 End: 11.97

Measuring Point (MP): North rim, top of casing

Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance (µmhos / cm)	Turbidity	Color	Odor	Comments
1253	4	6.83	20	1230	7100	TAN	H_2S	
1254	8	6.83	20.5	1130	"	"	slight H_2S	dry @ 8
1313	12	6.91	20	1050	"	"	"	dry @ 14.5
1409	16	7.06	20	1030	"	"	"	
1410	20	7.04	20.5	1050	"	"	"	

Total Discharge: 20 gal. Casing Volumes Removed: 4.03

Method of disposal of discharged water: 55 gallon drum

Number and size of sample containers filled: @ 15:30

Duplicate labeled MW-4 @ 14:00

Collected by: J. H.

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(415) 893-3600

Oakland

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JOBETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9412008
Date Received : 12/01/94
Project ID : 92CB040
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9412008- 1	MW-4
9412008- 2	MW-1
9412008- 3	MW-2
9412008- 4	MW-3
9412008- 5	T. BLANK

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Todd Stringer for
Susan Kraska Yeager
Laboratory Director

12-12-94
Date

Cristina V Rayburn
Project Manager

This report consists of 14 pages.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JOBETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9412008
Date Received : 12/01/94
Project ID : 92CB040
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9412008- 1	MW-4	WATER	11/30/94	TPHd
9412008- 2	MW-1	WATER	11/30/94	TPHd
9412008- 3	MW-2	WATER	11/30/94	TPHd
9412008- 4	MW-3	WATER	11/30/94	TPHd
9412008- 1	MW-4	WATER	11/30/94	TPHgBTEX
9412008- 2	MW-1	WATER	11/30/94	TPHgBTEX
9412008- 3	MW-2	WATER	11/30/94	TPHgBTEX
9412008- 4	MW-3	WATER	11/30/94	TPHgBTEX
9412008- 5	T. BLANK	WATER	11/28/94	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JOBETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9412008
Date Received : 12/01/94
Project ID : 92CB040
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this workorder.
- The concentration reported as diesel for sample MW-1 is due to the presence of a combination of diesel and a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.

Cheryl Balmer 12/9/94
Department Supervisor Date

C Patel 12/12/94
Chemist Date

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9412008
Matrix : WATER

Client Project ID : 92CB040
Units : ug/L

MW-3 dup

Compound Name	Method Reporting Limit*	Client ID / Lab ID	Client ID / Lab ID	Client ID / Lab ID	Client ID / Lab ID	Client ID / Lab ID
		MW-4 / 9412008-01	MW-1 / 9412008-02	MW-2 / 9412008-03	MW-3 / 9412008-04	T. BLANK / 9412008-05
Benzene	0.50	1.9	480	ND	ND	ND
Toluene	0.50	ND	1100	ND	ND	ND
Ethylbenzene	0.50	1.0	1200	ND	ND	ND
Total Xylenes	0.50	4.3	5300	ND	2.1	ND
TPH as Gasoline	50	100	29000	ND	100	ND
Surrogate Recovery		95%	108%	97%	96%	103%
Instrument ID		HP12	HP12	HP12	HP12	HP12
Date Sampled		11/30/94	11/30/94	11/30/94	11/30/94	11/28/94
Date Analyzed		12/05/94	12/07/94	12/05/94	12/05/94	12/05/94
RLMF		1	250	1	1	1
Filename Reference		FPD00801.D	FLD00802.D	FPD00803.D	FPD00804.D	FPD00805.D

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Lucia Sloan 12/12/94
Analyst Date

Cheryl Balmer 12/12/94
Supervisor Date

Issued on 12/12/94 @ 06:34 AM

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9412008
Matrix : WATER

Client Project ID : 92CB040
Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		METHOD BLANK	METHOD BLANK			
Benzene	0.50	ND	ND			
Toluene	0.50	ND	ND			
Ethylbenzene	0.50	ND	ND			
Total Xylenes	0.50	ND	ND			
TPH as Gasoline	50	ND	ND			
Surrogate Recovery		92%	99%			
Instrument ID		HP12	HP12			
Date Sampled		N/A	N/A			
Date Analyzed		12/05/94	12/07/94			
RLMF		1	1			
Filename Reference		BD0501E1.D	BD0701E1.D			

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Irma Shor 12/8/94
Analyst Date

Cheryl Balmer 12/8/94
Supervisor Date

Issued on 12/08/94 @ 10:42 AM

Matrix Spike Report

Total Petroleum Hydrocarbons as Gasoline

ITS - Anametrix Laboratories - (408)432-8192

Project ID : 92CB040
Sample ID : T. BLANK
Matrix : WATER
Date Sampled : 11/28/94

Laboratory ID : 9412008-05
Analyst : IS
Supervisor : ok
Instrument ID : HP12
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	500	ND	110%	112%	50-139	-2%	30
Surrogate Recovery		103%	87%	107%			
Date Analyzed		12/05/94	12/05/94	12/05/94			
Multiplier		1	1	1			
Filename Reference		FPD00805.D	FMD00801.D	FDD00801.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP12
Matrix : LIQUID

Analyst : IS
Supervisor : on
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	106%	56-141
Surrogate Recovery		107%	61-139
Date Analyzed		12/05/94	
Multiplier		1	
Filename Reference		MD0501E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as BTEX
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP12
Matrix : LIQUID

Analyst : IS
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Benzene	10	100%	52-133
Toluene	10	100%	57-136
Ethylbenzene	10	100%	56-139
Total Xylenes	10	110%	56-141
Surrogate Recovery		106%	61-139
Date Analyzed		12/07/94	
Multiplier		1	
Filename Reference		MD0701E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9412008
Matrix : WATER
Date Sampled : 11/30/94
Date Extracted: 12/02/94

Project Number : 92CB040
Date Released : 12/06/94
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9412008-01	MW-4 mw-3 dup	12/03/94	50	78	70%
9412008-02	MW-1	12/03/94	50	1300	69%
9412008-03	MW-2	12/03/94	50	ND	73%
9412008-04	MW-3	12/03/94	50	85	69%
BD0211F1	METHOD BLANK	12/03/94	50	ND	68%

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
The surrogate recovery limits for o-terphenyl are 47-114%.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as C10-C28 is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 12/12/94 Date

Supervisor 12/9/94 Date

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Sampled : N/A
Date Extracted: 12/02/94
Date Analyzed : 12/03/94

Anametrix I.D. : MD0211F1
Analyst : BF
Supervisor : MS
Date Released : 12/06/94
Instrument I.D.: HP23

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	700	56%	710	57%	1%	38-96
SURROGATE			60%		61%		47-114

* Quality control limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JOBETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9412008
Date Received : 12/01/94
Project ID : 92CB040
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9412008- 1	MW-4	WATER	11/30/94	5520BF
9412008- 2	MW-1	WATER	11/30/94	5520BF
9412008- 3	MW-2	WATER	11/30/94	5520BF
9412008- 4	MW-3	WATER	11/30/94	5520BF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JOBETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9412008
Date Received : 12/01/94
Project ID : 92CB040
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- Insufficient water sample was received for a Matrix Spike and Matrix Spike Duplicate analysis for Methods 5520BF. A Laboratory Control Sample and Laboratory Control Sample Duplicate were extracted and analyzed instead.

Department Supervisor 12/8/94 Date

Chemist Angela Kinchy 12/9/94 Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORY (408) 432-8192

PROJECT I.D. : 92CB040
MATRIX : WATER
DATE SAMPLED : 11/30/94
DATE EXTRACTED : 12/02/94
DATE ANALYZED : 12/08/94

ANAMETRIX I.D. : 9412008
ANALYST : AK
SUPERVISOR : [illegible]
DATE RELEASED : 12/09/94

WORKORDER #	SAMPLE I.D.	REPORTING LIMIT (mg/L)	AMOUNT FOUND (mg/L)
9412008-01	MW-4	5.0	ND
9412008-02	MW-1	5.0	ND
9412008-03	MW-2	5.0	ND
9412008-04	MW-3	5.0	ND
BD0211W4	METHOD BLANK	5.0	ND

ND - Not detected above the reporting limit for the method.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520BF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

LAB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Extracted : 12/02/94
Date Analyzed : 12/08/94

Anametrix I.D. : M/ND0211W4
Analyst : AK
Supervisor : BL
Date Released : 12/08/94

COMPOUND	SPIKE AMT. (mg/L)	LCS (mg/L)	%REC LCS	LCSD (mg/L)	%REC LCSD	% RPD	REC LIMITS
MOTOR OIL	50	47	94	49	98	4	44-128

* Quality control limits established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520BF.

#4599 9412008 10/17 (18)

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(510) 893-3600

Chain of Custody Record

PROJECT NO. 92CB040

SAMPLERS: (Signature) Tom Hanna

	DATE	TIME	SAMPLE NUMBER	Sample Matrix (S)oil, (W)ater, (A)ir	EPA Method	EPA Method	EPA Method	EPA Method	ANALYSES: TPH(g), BTEX	TPH(d), BTEX	8240				Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
1	11/30/94	14:00	MW-4	W					3	2	2				7	
2		14:30	MW-1	W					3	2	2				7	
3		15:00	MW-2	W					3	2	2				7	
4	11/30/94	15:30	MW-3	W					3	2	2				7	
5	11/28/94	—	Travel Blank	W					3						3	

TOTAL NUMBER OF CONTAINERS: 31

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Tom Hanna	12/1/94 1515	Kennis S. Amigo	Kennis S. Amigo	12/1/94 1600	

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
			Randy Stalcup	12/1/94 1600

Inchcape Testing Services
Anametrix Laboratories

SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9412008 CLIENT PROJECT ID: 92CB040

COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Temperature of sample (s) within range?	(YES)	NO	N/A
List temperature of cooler (s): 6°C, 6°C			

SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT ✓ BROKEN ____			
If NO, were samples transferred to proper container? ____			
Were VOA containers received with zero headspace?	(YES)	NO	N/A
If NO, was it noted on the chain of custody? ____			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	(YES)	NO	N/A
If NO, was the proper preservative added at time of receipt? ____			
pH check of samples required at time of receipt?	(YES)	NO	
If YES, pH checked and recorded by: BG			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? ____			
Field blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: 1	(YES)	NO	N/A

CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO
Has it been filled out completely and in ink?	(YES)	NO
Sample ID's on chain of custody agree with container labels?	(YES)	NO
Number of containers indicated on chain of custody agree with number received?	(YES)	NO
Analysis methods clearly specified?	YES	(NO)
Sampling date and time indicated?	(YES)	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO
Turnaround time? REGULAR ✓ RUSH ____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: BG Date: 12/6/94 Project Manager: CW Date: 12/6/94