Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

ENVIRONMENTAL PROTECTION
95 NOV -7 PM 2:22

Clayton
ENVIRONMENTAL
CONSULTANTS

drop MW-1, 5
1x: MW-3, 4 in March
2x MW-2 in March/Sep.
drop monthly GWE

October 27, 1995

Mr. Rick Oliver
Environmental Analyst
BANK OF AMERICA
4000 MacArthur Boulevard, Suite 100
Newport Beach, California 92660

Clayton Project No. 62009.03

Subject: Quarterly Groundwater Sampling at Bank of America Facility Located at 1528 Webster Street in Alameda, California

Dear Mr. Oliver:

Clayton Environmental Consultants, Inc. is pleased to present the third quarterly report for the groundwater sampling and monitoring activities conducted at the Bank of America facility located at 1528 Webster Street in Alameda, California (Figure 1). On September 20, 1995, Clayton collected groundwater samples for laboratory analysis from monitoring wells MW-1 through MW-5 (Figure 2). In addition, groundwater elevations were measured in July, August, September, and October 1995.

Background

On August 3, 1993, an underground storage tank (UST) was removed from beneath the side walk adjacent to the subject site (Figure 2). Soil samples collected from the UST excavation pit contained total petroleum hydrocarbons (TPH-D) ranging from 300 to 1300 milligrams per kilogram (mg/kg).

Because of the elevated concentration of TPH-D in the soil samples, the UST pit was overexcavated on September 14, 1993. The overexcavation was performed to remove contaminated soil to the extent possible without damaging the nearby utility lines or causing structural weakness to the subject building. Approximately 50 tons of soil was excavated and transported for proper disposal. No additional excavation was performed because of the near by utilities lines (i.e., storm drains, sewer lines, water lines).

After overexcavation was completed, eight samples were collected from the excavation walls. At the request of Alameda County Health Care Services Agency (ACHCSA), one sample from each excavation wall was analyzed for TPH-D and benzene, toluene, ethylbenzene and xylenes (BTEX). The analytical reports indicated TPH-D concentration ranging from 107 to 1005 mg/kg in soil samples collected from the east, west, and south walls of the excavation. The soil samples from the excavation pit did not contain BTEX concentrations at or above the analytical detection limits. After sampling was completed, the excavation was backfilled using Class II base rock material.

During April and May 1994, Clayton installed three monitoring wells (MW-1, MW-2, and MW-3) near the former UST location. These monitoring wells were installed to assess the extent of soil and possible groundwater contamination from the former UST.

According to the analytical reports, TPH-D concentrations in the groundwater samples ranged from 110 micrograms per liter (µg/L) in MW-1 to 4,100 µg/L in MW-2. The TPH-D concentrations ranged from less than the reporting limit of 1 mg/kg in the soil sample from MW-3 to 6 mg/kg in the soil sample from MW-1.

The groundwater flow direction, based on the groundwater elevation data collected on April 7, 1994, was calculated to be toward the south.

On July 5, 1994, ACHCSA requested a work plan to further delineate the soil and groundwater contamination near the subject site. Clayton submitted the work plan to ACHCSA on September 6, 1994. After receiving the approval from the ACHCSA, Clayton installed two additional monitoring wells (MW-4 and MW-5) near the subject facility (Figure 2). The analytical results identified TPH-D concentrations ranging from below the analytical reporting limit in groundwater samples from MW-1 and MW-5 to 4,400 µg/L in MW-2. BTEX was not detected in the soil or groundwater samples. Based on the groundwater measurements on October 24, and November 15, 1994, groundwater flow direction was calculated to the southeast.

Subsequent groundwater samples were collected and analyzed on quarterly basis. The analytical results for the groundwater samples are summarized in Table 1. Table 2 includes groundwater elevations as determined based on the monthly groundwater measurement.

Field Activities

To collect representative groundwater samples, stagnant water was purged from wells by using a 2-inch submersible pump. Approximately four times the well volume was pumped from each well to ensure water representative of the aquifer was present in the well. Well volume was calculated by using the measured depth to groundwater to the nearest 0.01 foot upon arrival at the site before purging. The purging was continued

until sufficient volume of water had been purged for pH, temperature, and electrical conductivity to stabilize.

The following parameters were noted during the sampling activities:

- Monitoring well identification
- Static water level
- Well depth
- Condition of water prior to purging (e.g., amount of free product)
- Purge rate and volume
- pH, temperature, and conductivity during purging
- Time purged
- Time of sample collection
- Sampling method
- Name of sampler
- Climatic conditions

The water sample was collected using a new disposable bailer. All other equipment coming into contact with groundwater was thoroughly cleaned and decontaminated before use at the site.

Groundwater was transferred in clean laboratory-supplied containers that were closed, labeled, placed immediately into an ice chest, and transported to Clayton's state-certified laboratory for analysis. One trip blank was furnished in accordance with Clayton's quality assurance/quality control (QA/QC) program.

Groundwater samples were collected in such a manner so as to minimize the volatilization of a sample due to agitation and/or transfer from bailer to sample container. To document and trace samples from time of collection, a signed chain-of-custody record was completed by the sampler and accompanied the samples through the laboratory analyses. The completed chain-of-custody was included with the analytical report from the laboratory. Detail of the groundwater sampling event is provided in the water sampling field survey forms (Appendix A).

Analytical Results

The groundwater samples were analyzed using the following United States Environmental Protection Agency (USEPA) methods:

- USEPA Method 8015 for total petroleum hydrocarbons as diesel (TPH-D)
- USEPA Method 8020 for benzene, toluene, ethylbenzene, and xylenes (BTEX)
- USEPA Method 160.1 for total dissolved solids (TDS)

At the request of ACHCSA during the groundwater monitoring event in March 1995, the groundwater sample from monitoring well MW-2 was analyzed for polynuclear aromatic hydrocarbons (PNAs). However, no PNAs were detected in the groundwater sample. As approved by ACHCSA, the subsequent groundwater samples were not analyzed for PNAs.

TPH-D was detected in groundwater samples from monitoring wells MW-2, MW-3 and MW-4. The TPH-D concentrations ranged from 120 to 1,200 µg/L. BTEX was not detected in any of the groundwater samples. The analytical results are summarized in Table 1. The laboratory reports are included in Appendix B.

Groundwater Flow Direction

Using the groundwater elevations measured during the monthly inspection of the monitoring wells and during groundwater sampling activities, Clayton calculated the groundwater flow and gradient to be southerly for the months of July and August (Figures 3 and 4). Figure 5 shows groundwater elevations for the month of September 1995. The groundwater elevations for the month of October are shown on Figure 6. The cause for fluctuation in the groundwater flow direction could not be determined during this investigation. However, it is possible that the groundwater levels fluctuate seasonally or as the result of local landscape irrigation or discharge.

If you have any questions, please call me or Dariush Dastmalchi at (510) 426-2600.

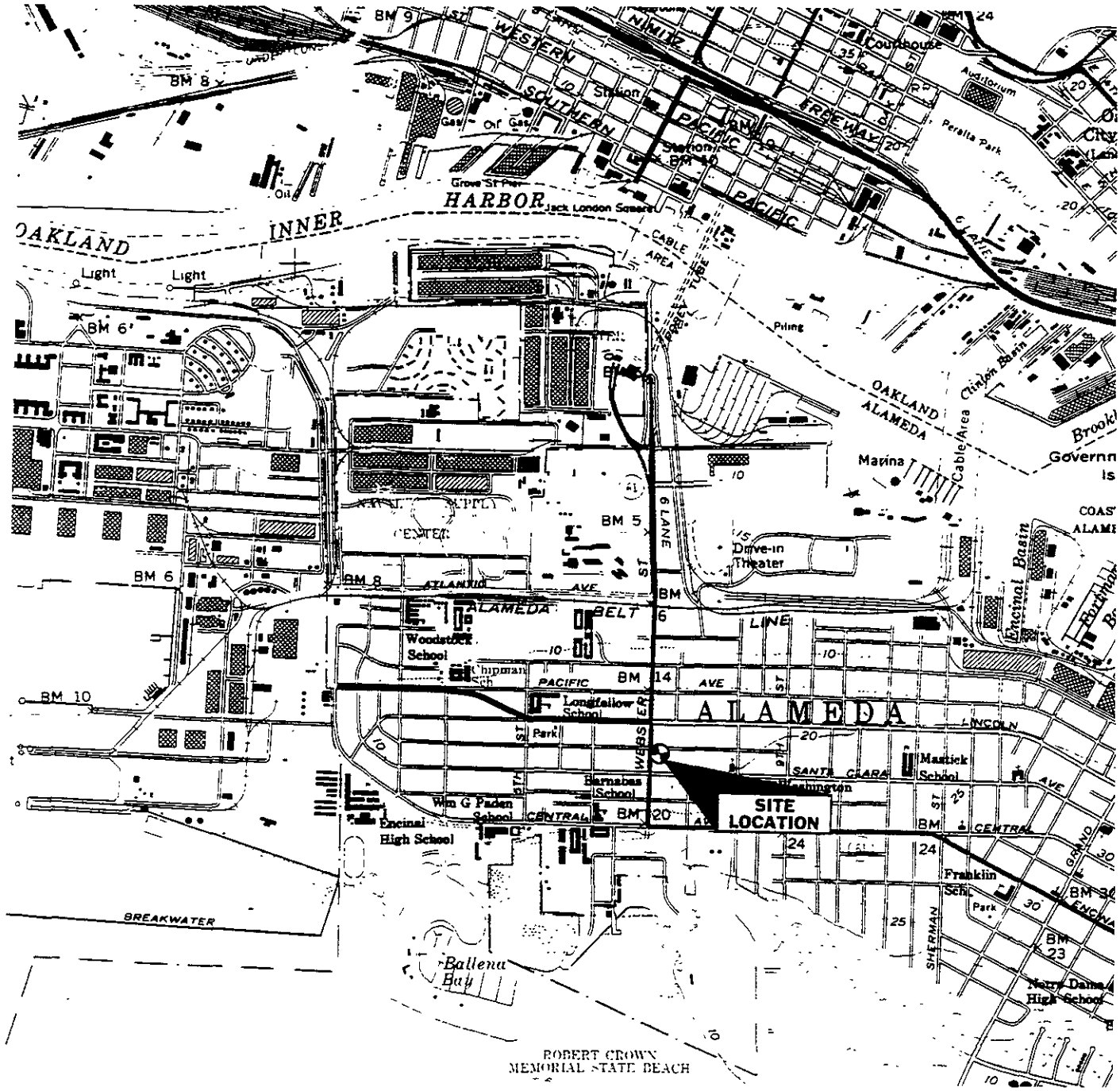
Sincerely,

Dariush Dastmalchi
Geologist

Richard W. Day, CEG, CHG
Supervisor, Geosciences and Remediation
San Francisco Regional Office

DD/

FIGURES



Portion of 7.5-minute Series (Topographic) Map
United States Department of the Interior
Geological Survey

Figure 1 Site location 62009-01A-16	Clayton ENVIRONMENTAL CONSULTANTS	Bank of America, 1528 Webster Street, Alameda, California	
		Clayton Project No. 62009.01	Bank of America

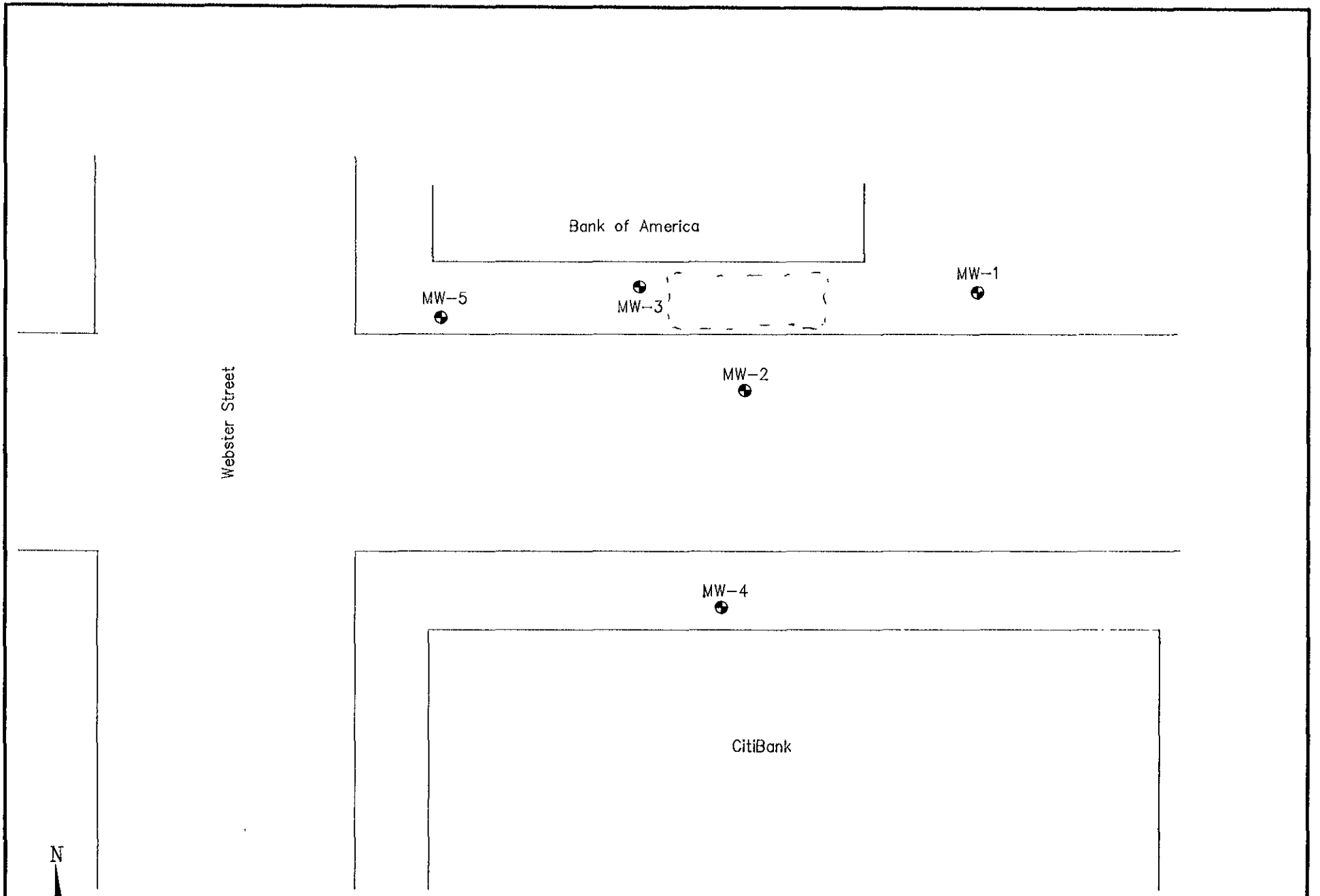


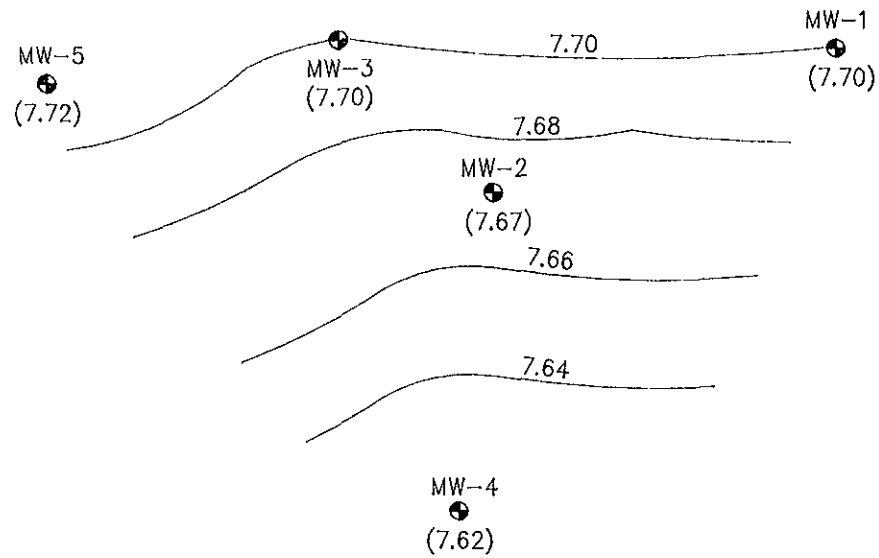
Figure 2
Site Vicinity Map
6200901-16

Clayton
ENVIRONMENTAL CONSULTANTS

Bank of America, 1528 Webster Street, Alameda, California

Clayton Project No. 62009.01

Bank of America



LEGEND	
◒	Monitoring Well
(7.676)	Groundwater Elevation
~	Groundwater Contour Line

N

Figure 3
Groundwater Contour Map
(July 21, 1995)

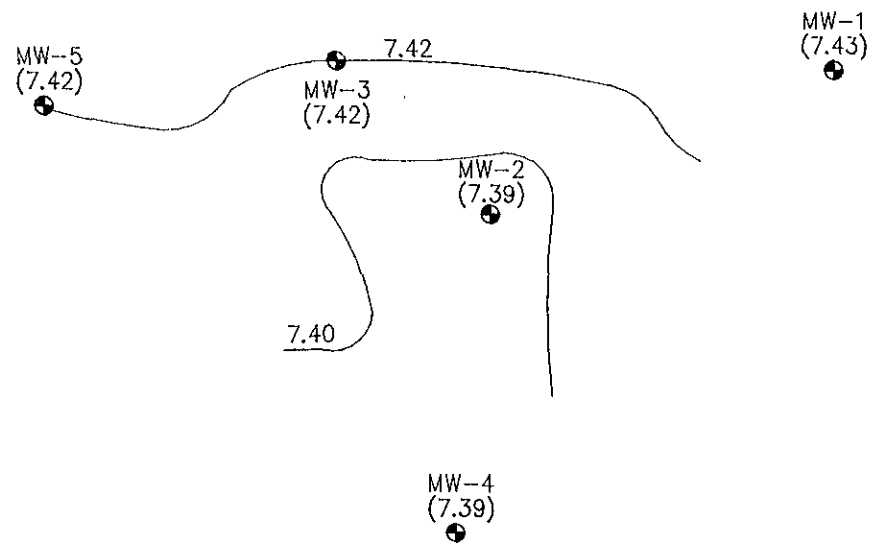
6200901-17

Clayton ENVIRONMENTAL CONSULTANTS

Bank of America, 1528 Webster Street, Alameda, California

Clayton Project No. 62009.03

Bank of America



LEGEND	
◔	Monitoring Well
(7.676)	Groundwater Elevation
⌒	Groundwater Contour Line

N

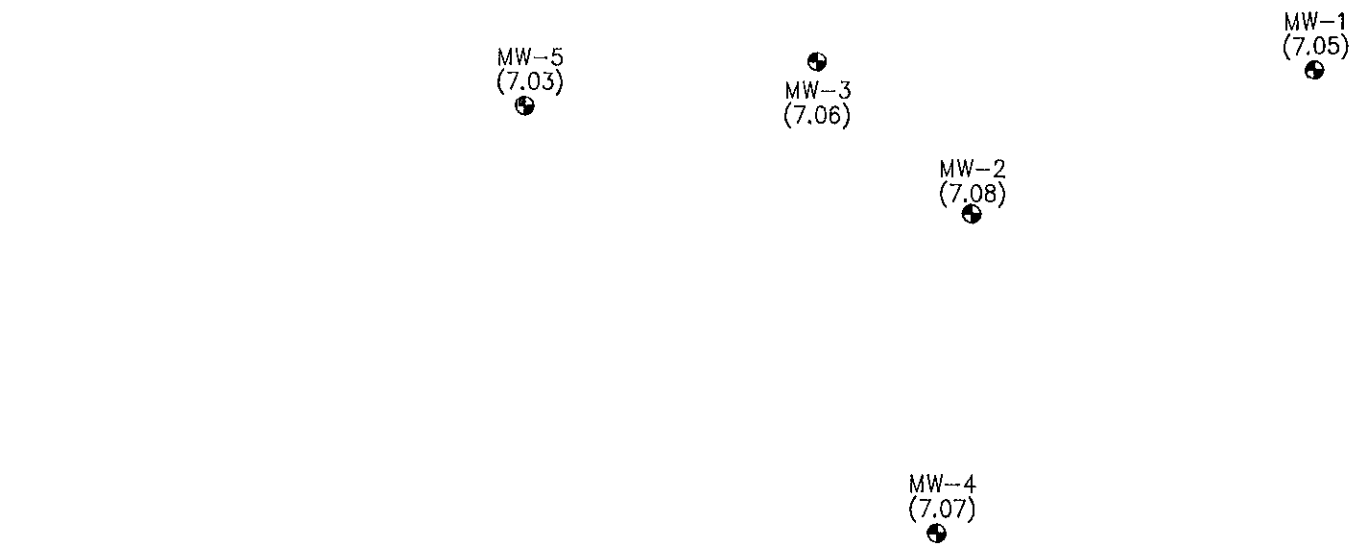
Figure 4
Groundwater Contour Map
(August 17, 1995)
6200901-18

Clayton
ENVIRONMENTAL CONSULTANTS

Bank of America, 1528 Webster Street, Alameda, California

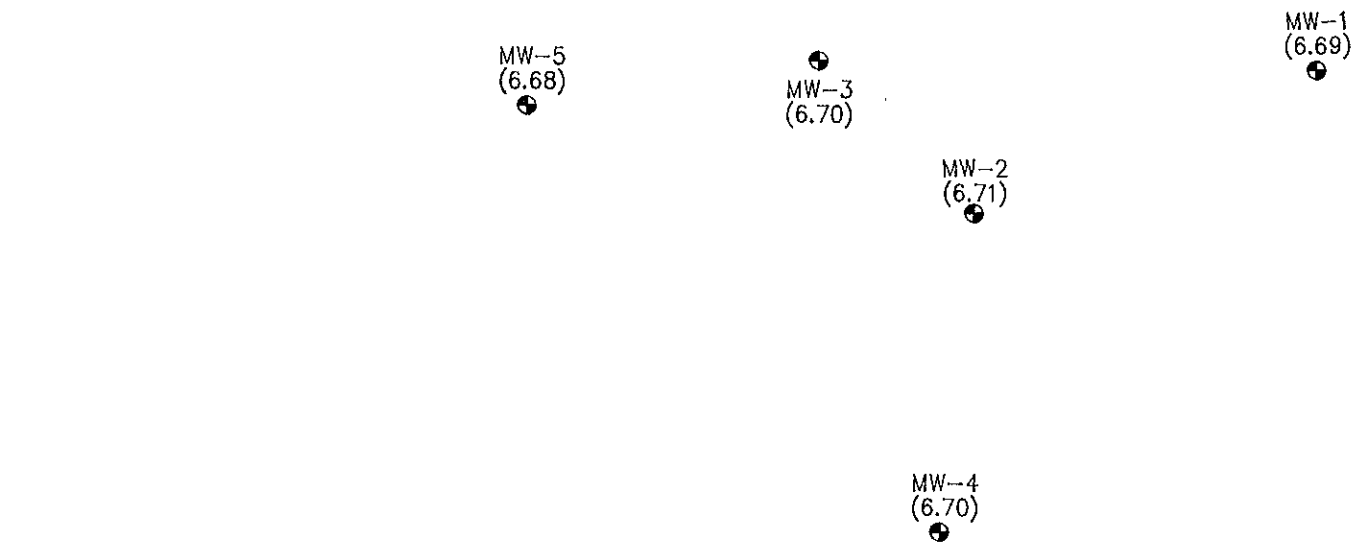
Clayton Project No. 62009.03

Bank of America



LEGEND	
◓	Monitoring Well
(7.676)	Groundwater Elevation

Figure 5 Groundwater Elevation (September 20, 1995) 6200901-19	Clayton ENVIRONMENTAL CONSULTANTS	Bank of America, 1528 Webster Street, Alameda, California	
		Clayton Project No. 62009.03	Bank of America



LEGEND	
◓	Monitoring Well
(7.676)	Groundwater Elevation

Figure 6 Groundwater Elevation (October 19, 1995) 6200901-20	Clayton ENVIRONMENTAL CONSULTANTS	Bank of America, 1528 Webster Street, Alameda, California	
		Clayton Project No. 62009.03	Bank of America

TABLES

Clayton
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TABLE 1
Summary of Groundwater Analytical Results (ug/L)
October 1994 through September 1995

Monitoring Well	Sample Date	TPH-D	BTEX	PNA	TDS	
MW-1	24-Oct-94	ND	ND	NA	22,000,000	
	30-Mar-95	280	ND	NA	280,000	
	21-Jun-95	ND	ND	NA	700,000	drop
	20-Sep-95	ND	ND	ND	250,000	
MW-2	24-Oct-94	4,400	ND	NA	260,000	
	30-Mar-95	ND	ND	ND	260,000	
	21-Jun-95	9,600	ND	NA	380,000	2x
	20-Sep-95	1,200	ND	ND	250,000	
MW-3	24-Oct-94	1,200	ND	NA	140,000	
	30-Mar-95	ND	ND	NA	280,000	
	21-Jun-95	460	ND	NA	110,000	1x
	20-Sep-95	600	ND	ND	120,000	
MW-4	24-Oct-94	170	ND	NA	200,000	
	30-Mar-95	ND	ND	NA	340,000	
	21-Jun-95	ND	ND	NA	220,000	1x
	20-Sep-95	120	ND	ND	590,000	
MW-5	24-Oct-94	ND	ND	NA	180,000	
	30-Mar-95	ND	ND	NA	170,000	
	21-Jun-95	ND	ND	NA	110,000	drop
	20-Sep-95	ND	ND	ND	120,000	

TPH-D - Total Petroleum Hydrocarbons as Diesel
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PNA - Polynuclear aromatics
TDS - Total Dissolved Solids
ND - Not detected at or above laboratory reporting limits
NA - Not analyzed

TABLE 2
Groundwater Level Measuerment Data
October1994 through October1995

Monitoring Well	Measurement Date	Top of Casing (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Change from Previous Measurement (ft)
MW-1	24-Oct-94	13.07	7.60	5.47	NA
	15-Nov-94	13.07	6.38	6.69	1.22
	30-Mar-95	13.07	4.00	9.07	2.38
	26-Apr-95	13.07	4.48	8.59	-0.48
	24-May-95	13.07	4.82	8.25	-0.34
	21-Jun-95	13.07	5.12	7.95	-0.30
	21-Jul-95	13.07	5.34	7.73	-0.22
	17-Aug-95	13.07	5.64	7.43	-0.30
	20-Sep-95	13.07	6.02	7.05	-0.38
	18-Oct-95	13.07	6.38	6.69	-0.36
MW-2	24-Oct-94	13.52	8.10	5.42	NA
	15-Nov-94	13.52	6.79	6.73	1.31
	30-Mar-95	13.52	4.52	9.00	2.27
	26-Apr-95	13.52	4.98	8.54	-0.46
	24-May-95	13.52	5.39	8.13	-0.41
	21-Jun-95	13.52	5.68	7.84	-0.29
	21-Jul-95	13.52	5.85	7.67	-0.17
	17-Aug-95	13.52	6.13	7.39	-0.28
	20-Sep-95	13.52	6.44	7.08	-0.31
	18-Oct-95	13.52	6.81	6.71	-0.37
MW-3	24-Oct-94	13.34	7.94	5.40	NA
	15-Nov-94	13.34	6.44	6.90	1.50
	30-Mar-95	13.34	4.28	9.06	2.16
	26-Apr-95	13.34	4.78	8.56	-0.50
	24-May-95	13.34	5.01	8.33	-0.23
	21-Jun-95	13.34	5.35	7.99	-0.34
	21-Jul-95	13.34	5.64	7.70	-0.29
	17-Aug-95	13.34	5.92	7.42	-0.28
	20-Sep-95	13.34	6.28	7.06	-0.36
	18-Oct-95	13.34	6.64	6.70	-0.36

TABLE 2
Groundwater Level Measuerment Data
October1994 through October1995

Monitoring Well	Measurement Date	Top of Casing (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Change from Previous Measurement (ft)
MW-4	24-Oct-94	13.69	8.25	5.44	NA
	15-Nov-94	13.69	7.25	6.44	1.00
	30-Mar-95	13.69	4.74	8.95	2.51
	26-Apr-95	13.69	5.18	8.51	-0.44
	24-May-95	13.69	5.55	8.14	-0.37
	21-Jun-95	13.69	5.84	7.85	-0.29
	21-Jul-95	13.69	6.07	7.62	-0.23
	17-Aug-95	13.69	6.30	7.39	-0.23
	20-Sep-95	13.69	6.62	7.07	-0.32
	18-Oct-95	13.69	6.99	6.70	-0.37
MW-5	24-Oct-94	13.52	8.14	5.38	NA
	15-Nov-94	13.52	6.58	6.94	1.56
	30-Mar-95	13.52	4.49	9.03	2.09
	26-Apr-95	13.52	4.93	8.59	-0.44
	24-May-95	13.52	5.21	8.31	-0.28
	21-Jun-95	13.52	5.53	7.99	-0.32
	21-Jul-95	13.52	5.80	7.72	-0.27
	17-Aug-95	13.52	6.10	7.42	-0.30
	20-Sep-95	13.52	6.49	7.03	-0.39
	18-Oct-95	13.52	6.84	6.68	-0.35

ft, msl - feet above mean sea level

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS AND GROUNDWATER DATA

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # ______ Site: [illegible] Date: 9-20-95

Well # [illegible] Sampling Team: [illegible]

Sampling Method: Dispos. Bailer

Field Conditions: [illegible]

Describe Equipment D-Con Before Sampling This Well: [illegible]

Total Depth of Well: 19.62 feet Time: 12:23 Depth to Water Before Pumping: 6.02 feet

Volume Height of Water Column: 13.60 feet * Diameter 2-inch (.16) 4-inch .65 = Volume 2.17 gal * Purge Factor 4 = To Purge 8.68

Depth Purging From: 19.0 feet Time Surging Begins: 12:33

Notes on Initial Discharge: [illegible]

Time	Volume Purged	pH	Conductivity	T	Notes
12:34	2	6.3	27[illegible]	22.5	Sl[illegible] [illegible]
12:35	4	6.3	279	22.1	Turbid Brown [illegible]
12:4[illegible]	6	6.2	[illegible]	21.8	Turbid/
12:42	8	6.2	287	[illegible]	Slightly Turbid [illegible]

EWATER.TBL (11/21/88)

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # ________ Site: Bo-r Alameda [illegible] Date: 9-20-95

Well # [illegible] Sampling Team: M Sorensen

Sampling Method: Disposable Bailer

Field Conditions: [illegible] — 65

Describe Equipment D-Con Before Sampling This Well: [illegible]

Total Depth of Well: 19.5 feet Time: 10:22 Depth to Water Before Pumping: 6.44 feet

Volume Height of Water Column: 13.06 feet * Diameter 2-inch .16 4-inch .65 = Volume 2.08 gal * Purge Factor 4 = To Purge 8.32

Depth Purging From: 19.0 feet Time Surging Begins: 10:31

Notes on Initial Discharge: Turbid

Time	Volume Purged	pH	Conductivity	T	Notes
10:32	2	8.4	113	65.5	[illegible]
10:[illegible]	4	8.0	1115	65.9	
[illegible]	6	7.7	1102	65.[illegible]	
[illegible]	8	7.6	1095	[illegible]	
10:56	10	7.[illegible]	1090	[illegible]	

EWATER.TBL (11/21/88)

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # _____ Site: [illegible] Date: 9.20.-[illegible]

Well # [illegible] Sampling Team: M [illegible]

Sampling Method: [illegible]

Field Conditions: [illegible]

Describe Equipment D-Con Before Sampling This Well: [illegible]

Total Depth of Well: 10.8[illegible] feet Time: [illegible] Depth to Water Before Pumping: 6.28 feet

Volume Height of Water Column: 13.58 feet * Diameter: 2-inch (.16) / 4-inch .65 = Volume 2.17 gal * Purge Factor 4 = To Purge 8.68

Depth Purging From: 19.0 feet Time Surging Begins: 11:44

Notes on Initial Discharge: Turbid

Time	Volume Purged	pH	Conductivity	T	Notes
11:46	0	6.6	485	23.2	Turbid / Purging
11:50	1	6.5	480	[illegible]	[illegible]
11:55	6	6.5	464	22.3	Clear / purged dry

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # _____ Site: [illegible] Date: 9-20-[illegible]

Well # [illegible] Sampling Team: [illegible]

Sampling Method: [illegible]

Field Conditions: [illegible]

Describe Equipment D-Con Before Sampling This Well: None required

Total Depth of Well: 19.8 feet Time: 1:10 Depth to Water Before Pumping: 6.62 feet

Volume Height of Water Column: 3.8 feet * Diameter: 2-inch (.16) 4-inch .65 = Volume 2.10 gal * Purge Factor 4 = To Purge 8.4

Depth Purging From: 19.0 feet Time Surging Begins: 1:17

Notes on Initial Discharge: Slight Tint

Time	Volume Purged	pH	Conductivity	T	Notes
[illegible]	[illegible]	5.7	1909	20.4	[illegible]
[illegible]	[illegible]	5.6	1888	20.4	[illegible]
[illegible]	6	5.7	1895	20.3	
[illegible]	8	5.7	1900	[illegible]	
[illegible]	10	5.7	[illegible]	[illegible]	

EWATER.TBL (11/21/88)

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # _____ Site: [illegible] Date: [illegible]

Well # MW-5 Sampling Team: [illegible]

Sampling Method: [illegible]

Field Conditions: Clear — 65°

Describe Equipment D-Con Before Sampling This Well: None required

Total Depth of Well: 19.4 feet Time: 11:00 Depth to Water Before Pumping: 6.19 feet

Volume Height of Water Column: 12.65 feet * Diameter: 2-inch (.16) 4-inch (.65) = Volume 2.02 gal * Purge Factor 4 = To Purge 8.08

Depth Purging From: 19.0 feet Time Surging Begins: 11:05

Notes on Initial Discharge: Turbid

Time	Volume Purged	pH	Conductivity	T	Notes
11:06	2	5.7	444	22.5	Turbid
11:09	4	6.8	488	22.7	
11:09	6	6.8	413	22.0	
11:12	8	6.7	406	21.7	
	10	6.7	407	21.7	Clear

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APPENDIX B

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLE

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

September 29, 1995

Mr. Dariush Dastmalchi
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref.: 62009.03
Clayton Project No.: 95092.73

Dear Mr. Dastmalchi:

Attached is our analytical laboratory report for the samples received on September 20, 1995. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after October 28, 1995, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Andrew Bradley for
Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/tjb

Attachments

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification:	MW-1	Date Sampled:	09/20/95
Lab Number:	9509273-01A	Date Received:	09/20/95
Sample Matrix/Media:	WATER	Date Prepared:	09/22/95
Preparation Method:	EPA 5030	Date Analyzed:	09/22/95
Method Reference:	EPA 8020	Analyst:	WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	11-57-4	ND	0.4
Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	99	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification:	MW-2	Date Sampled:	09/20/95
Lab Number:	9509273-02A	Date Received:	09/20/95
Sample Matrix/Media:	WATER	Date Prepared:	09/22/95
Preparation Method:	EPA 5030	Date Analyzed:	09/22/95
Method Reference:	EPA 8020	Analyst:	WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	11-57-4	ND	0.4
Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	93	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification:	MW-3	Date Sampled:	09/20/95
Lab Number:	9509273-03A	Date Received:	09/20/95
Sample Matrix/Media:	WATER	Date Prepared:	09/22/95
Preparation Method:	EPA 5030	Date Analyzed:	09/22/95
Method Reference:	EPA 8020	Analyst:	WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	11-57-4	ND	0.4
Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	95	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification:	MW-4	Date Sampled:	09/20/95
Lab Number:	9509273-04A	Date Received:	09/20/95
Sample Matrix/Media:	WATER	Date Prepared:	09/22/95
Preparation Method:	EPA 5030	Date Analyzed:	09/22/95
Method Reference:	EPA 8020	Analyst:	WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	11-57-4	ND	0.4
Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	99	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification:	MW-5	Date Sampled:	09/20/95
Lab Number:	9509273-05A	Date Received:	09/20/95
Sample Matrix/Media:	WATER	Date Prepared:	09/22/95
Preparation Method:	EPA 5030	Date Analyzed:	09/22/95
Method Reference:	EPA 8020	Analyst:	WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	11-57-4	ND	0.4
Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	97	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9509273-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	09/22/95
Preparation Method:	EPA 5030	Date Analyzed:	09/22/95
Method Reference:	EPA 8020	Analyst:	WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	11-57-4	ND	0.4
Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	92	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification: See Below
Lab Number: 9509273
Sample Matrix/Media: WATER
Extraction Method: EPA 3510
Method Reference: EPA 8015 (Modified)

Date Received: 09/20/95
Date Extracted: 09/22/95
Date Analyzed: 09/25/95

Lab Number	Sample Identification	Date Sampled	TPH-D (ug/L)		Method Detection Limit (ug/L)
-01	MW-1	09/20/95	ND		50
-02	MW-2	09/20/95	1200	a	50
-03	MW-3	09/20/95	600	a	50
-04	MW-4	09/20/95	120	a	50
-05	MW-5	09/20/95	ND		50
-06	METHOD BLANK	--	ND		50

ND: Not detected at or above limit of detection
--: Information not available or not applicable

TPH-D = Extractable petroleum hydrocarbons from C10 to C42 quantitated as diesel.
a Sample does not match the typical diesel pattern.
Sample appears to be oil.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 62009.03
Clayton Project No. 95092.73

Sample Identification: See Below
Lab Number: 9509273
Sample Matrix/Media: WATER
Method Reference: EPA 160.1

Date Received: 09/20/95
Date Analyzed: 09/25/95

Lab Number	Sample Identification	Date Sampled	Total Dissolved Solids (mg/L)	Method Detection Limit (mg/L)
-01	MW-1	09/20/95	250	10
-02	MW-2	09/20/95	250	10
-03	MW-3	09/20/95	120	10
-04	MW-4	09/20/95	590	10
-05	MW-5	09/20/95	120	10
-06	METHOD BLANK	--	<10	10

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Clayton
ENVIRONMENTAL
CONSULTANTS

Quality Assurance Results Summary

Matrix Spike/Matrix Spike Duplicate Results

for

Clayton Project No. 95092.73

Quality Assurance Results Summary - Matrix Spike/Matrix Spike Duplicate
for
Clayton Project No. 95092.73

Clayton Lab Number:	9509264-LCS
Ext./Prep. Method:	EPA 3510
Date:	09/22/95
Analyst:	HYT
Std. Source:	E950901-01W
Sample Matrix/Media:	WATER

Analytical Method:	EPA 8015
Instrument ID:	02893
Date:	09/24/95
Time:	17:25
Analyst:	GUD
Units:	UG/L
QC Batch No:	95092245

Analyte	Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
DIESEL	ND	1,000	995	99	782	78	89	65	128	24	25

ND = Not detected at or above limit of detection
SOR = Spike out of range due to high sample concentration.

LCL = Lower Control Limit

UCL = Upper Control Limit

Quality Assurance Results Summary - Matrix Spike/Matrix Spike Duplicate
for
Clayton Project No. 95092.73

Clayton Lab Number: 9509254-09A
Ext./Prep. Method: EPA-5030
Date: 09/21/95
Analyst: WGK
Std. Source: V950313-02W
Sample Matrix/Media: WATER

Analytical Method: EPA 8015/8020
Instrument ID: 05587
Date: 09/21/95
Time: 23:28
Analyst: WGK
Units: ug/L
QC Batch No: 95092221

Analyte		Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	4.24	4.41	104	4.31	102	103	81	118	2.3	20
ETHYLBENZENE	(PID)	ND	4.09	4.23	103	4.11	100	102	81	114	2.9	20
GASOLINE	(FID)	ND	500	463	93	459	92	92	80	120	0.9	25
TOLUENE	(PID)	ND	26.3	25.9	98	26.8	102	100	84	118	3.6	20
TOTAL XYLENE	(PID)	ND	29.6	29.9	101	29.3	99	100	85	115	2.0	20

ND = Not detected at or above limit of detection
SOR = Spike out of range due to high sample concentration.
LCL = Lower Control Limit
UCL = Upper Control Limit

Clayton ENVIRONMENTAL CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 2
Project No.	
Batch No.	9509273
Ind. Code	W.P.
Date Logged In 9/20	By

REPORT RESULTS TO

Name D. DASTMALCHI | Title
Company CEC | Dept.
Mailing Address
City, State, Zip
Telephone No. | Telefax No.

Purchase Order No. | Client Job No. 62009.83

SEND INVOICE TO

Name
Company Bank of America | Dept.
Address
City, State, Zip

Date Results Req.: STANDARD TAT | Rush Charges Authorized? ☐ Yes ☒ No | Phone / Fax Results ☐ ☐

Special Instructions: (method, limit of detection, etc.)

Explanation of Preservative: P=HCl

Samples are: (check if applicable)
☐ Drinking Water
☐ Collected in the State of New York

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added. *)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	BTEX	TDS	TPH-DIESEL	FOR LAB USE ONLY
MW-1	9-20-95	WATER	40 ML	2	P			01 AB
MW-1	↓	↓	120 ML	1		X		C
MW-1			LITER	2			P	DE
MW-2			40 ML	2	P			02 AB
MW-2			120 ML	1		X		C
MW-2			LITER	2			P	DE
MW-3			40 ML	2	P			03 AB
MW-3			120 ML	1		X		C
MW-3	9-20-95	WATER	LITER	2			P	DE

CHAIN OF CUSTODY

Collected by: M. Springman (print) | Collector's Signature: M. Springman
Relinquished by: M. Springman | Date/Time 9-20-95 4:00AM | Received by: | Date/Time
Relinquished by: | Date/Time | Received at Lab by: | Date/Time 9/20/95 4:30
Method of Shipment: | Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48375, (810) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (908) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (510) 426-2657

2/92

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

Clayton ENVIRONMENTAL CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 2 of 2
Project No.	
Batch No.	95032273
Ind. Code	W.P.
Date Logged In	By

REPORT RESULTS TO

Name: D. DASTMALCHI | Title:
Company: CEC | Dept.:
Mailing Address:
City, State, Zip:
Telephone No.: | Telefax No.:

SEND INVOICE TO

Purchase Order No.: | Client Job No.: 602009.03
Name:
Company: Bank of America | Dept.:
Address:
City, State, Zip:

Date Results Req.: STANDARD TAT | Rush Charges Authorized? ☐ Yes ☒ No | Phone / Fax Results ☐ ☐

Special Instructions: (method, limit of detection, etc.)

* Explanation of Preservative: P = HCl

Samples are: (check if applicable)
☐ Drinking Water
☐ Collected in the State of New York

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	BTEX	TDS	TPH-DIESEL	FOR LAB USE ONLY
MW-4	9-20-95	WATER	40 ML	2	P			04 A13
MW-4			120 ML	1		X		C
MW-4			LITER	2		P		DE
MW-5			40 ML	2	P			05 A12
MW-5			~~120 ML~~	1		X		C
MW-5	9-20-95	WATER	LITER	2		P		DE

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added. *)

CHAIN OF CUSTODY

Collected by: M. SPRINGMAN (print) | Collector's Signature: M. Springman
Relinquished by: M. Springman | Date/Time: 9-20-95 4:00 PM | Received by: | Date/Time:
Relinquished by: | Date/Time | Received at Lab by: | Date/Time:
Method of Shipment: | Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive Novi, MI 48375 (810) 344-1770	Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837 (908) 225-6040	400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144 (404) 499-7500	1252 Quarry Lane Pleasanton, CA 94566 (510) 426-2657

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