Versar INC.

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TIM'S SUPERVISOR

4/19/01 REVIEWED

April 2, 2001

Ms. Donna Proffitt
Bank of America, N.A.
Environmental Services Department
4820 Irvine Boulevard
Irvine, California 92620-1910

Reference: Groundwater Monitoring Report (January 2001)
2585 Nicholson Street in San Leandro, California
ES# 305582
Versar Project No. 4422-003

Dear Ms. Proffitt:

Versar, Inc. (Versar) has prepared this groundwater monitoring report on behalf of Bank of America, N.A. (Bank of America) summarizing work performed at the property located at 2585 Nicholson Street in San Leandro, California (Site). Figures 1 and 2, Attachment I, present the Site location and Site layout, respectively. The following sections describe the scope of work, Site location, and Site background.

This letter report presents the results of the quarterly groundwater monitoring and sampling event conducted at the Site on January 23, 2001. The results of this monitoring event are presented graphically on Figure 3 in Attachment I, and are summarized in tables in Attachment II. This report has been prepared in response to the request by the Alameda County Health Care Services (ACHCS) letters dated July 14, 1999, and October 29, 1999, regarding groundwater monitoring at 2585 Nicholson Street, San Leandro, California.

The Site is located at 2585 Nicholson Street in San Leandro, California. The nearest cross street is Republic Avenue. The Site is currently occupied by Crane Works and consists of a single-story commercial office building at the north end of the property, and covered parking/work areas over the western and southern edges of the property.

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BACKGROUND

According to prior assessment documents, two underground storage tanks (USTs) were removed from the Site in 1991. Soil and groundwater samples collected during the UST removal activities identified total petroleum hydrocarbons as diesel (TPHd) and gasoline (TPHg) in both media, and soils were over excavated. One groundwater monitoring well (MW-1) was installed in 1992, and an oil absorbent sock was used to collect free-floating product (maximum of 1.25-inches).

In April 1999, Versar installed four additional monitoring wells on or around the Site perimeter. Quarterly monitoring of groundwater from the monitoring wells has been performed since well installation. Groundwater monitoring has identified TPHg and benzene, toluene, ethylbenzene, and xylenes (BTEX) on-site in well MW-1. Low to non-detect levels of the constituents have been identified in the surrounding monitoring wells. This report presents the January 2001 monitoring episode.

In their April 27, 2000 letter, and as further discussed in Versar's May 1, 2000 letter, ACHCS requested semi-annual monitoring for TPHd and TPH as stoddard solvent (TPHss) in well MW-1. In their January 24, 2001 letter, ACHCS reiterated their request for TPHd analysis in well MW-1. TPHd analysis was performed on the groundwater sample from well MW-1 during the July 2000 monitoring event, and the results were below the laboratory reporting limit. TPHss analysis was performed on the groundwater sample from well MW-1 during the October 2000 monitoring event, and the results were also below the laboratory reporting limit. Both reports recommended that TPHd and TPHss be deleted from the suite of analyses for the Site.

QUARTERLY GROUNDWATER MONITORING ACTIVITIES

Versar performed groundwater monitoring of the Site on January 23, 2001, sampling the five wells for TPHg and BTEX. Three of the wells were sampled for parameters indicative of intrinsic bio-remediation. Versar's quarterly groundwater monitoring program for the Site included the following tasks:

- Measure groundwater levels in monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5, and calculate the hydraulic gradient and flow direction;

- Purge and collect groundwater samples from the five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5);

- Obtain measurements of groundwater temperature, electrical conductivity, pH, oxidation/reduction potential (redox), and dissolved oxygen (DO) in monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5;

- Submit the groundwater samples to a California-certified analytical laboratory for analysis of one or more of the following; TPHg, BTEX, methane, nitrate, sulfate, and alkalinity; and

- Prepare a letter report summarizing the results.

Groundwater Sampling Protocol

The methodology and protocol followed for the collection of groundwater samples during this groundwater sampling event are presented in Attachment III, Decontamination and Groundwater Monitoring Well Sampling Procedures.

Quarterly Groundwater Level Measurements

On January 23, 2001, the depth to groundwater in wells MW-1, MW-2, MW-3, MW-4 and MW-5 was measured to characterize groundwater flow direction and gradient. The depths to groundwater at each well, along with historical measurements, are presented in Table 1. Groundwater surface elevations are 0.14 to 0.46 foot lower than in October 2000. Groundwater was measured to be flowing in a southerly direction, at a gradient of approximately 0.001 feet per foot. Figure 3 in Attachment I is a groundwater gradient map generated from the January 23, 2001 data. As indicated on the figure, data from monitoring well MW-5 was not used in constructing contours. Heavy precipitation was occurring around the date of sampling, and groundwater elevations for MW-5 may have been affected by a storm water drainage channel adjacent to the monitoring well. The gradient depicted on Figure 3 is consistent with previous gradients observed for the Site.

Groundwater Sampling Activities

On January 23, 2001, groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4 and MW-5. Prior to sampling, each well was purged of approximately three casing volumes of groundwater, and the water level allowed to recover to at least 80 percent of the pre-purge level. Measurements of temperature, pH, electrical conductivity, redox, and DO were recorded a minimum of three times during each purged well volume. The groundwater monitoring well purge tables are presented in Attachment IV.

Groundwater samples collected from Site wells MW-1, MW-2, MW-3, MW-4, and MW-5 were analyzed for TPHg and BTEX. Groundwater samples collected from site wells MW-1, MW-2, and MW-3 were analyzed for methane, sulfate, nitrate and alkalinity. All analyses were performed by Excelchem Environmental Labs (Excelchem), California State Laboratory Certification No. 2119. The samples were collected, placed in containers, preserved, transported, and analyzed within the time constraints consistent with applicable United States EPA, California EPA, and Regional Water Quality Control Board (RWQCB) procedures, and in conformance with Versar's Decontamination and Groundwater Monitoring Well Sampling Procedures, presented in Attachment III. Purge water from the January 23, 2001 sampling event was stored on-site in two DOT-approved, 55-gallon steel drums, and was subsequently recycled by Seaport Environmental. A certificate of disposal for the purge water is presented in Attachment VI.

ANALYTICAL RESULTS

The analytical results of the TPH and BTEX analyses are summarized in Table 2 in Attachment II. Figure 3 in Attachment I spatially depicts the analytical results for the January 23, 2001 groundwater monitoring event. The analytical results for methane, nitrate, sulfate, and alkalinity analyses; and DO and redox measurements; are summarized in Table 3 in Attachment II. The laboratory analytical reports are included in Attachment V. The following is a summary of the analytical results:

- TPHg was detected in well MW-1, MW-2, MW-4 and MW-5 at concentrations of 17.8 milligrams per liter (mg/L), 0.104 mg/L, 0.062 mg/L, and 0.085 mg/L, respectively;

- Benzene was detected in well MW-1 only at a concentration of 957 micrograms per liter (μg/L);

- Toluene was detected in well MW-1 at a concentration of 146 μg/L;
- Ethylbenzene was detected in well MW-1 at a concentration of 353 μg/L; and
- Total xylene isomers was detected in well MW-1 at a concentration of 1,060 μg/L.

Samples collected from wells MW-1, MW-2, and MW-3 to assess the potential for intrinsic bio-remediation indicate that anaerobic intrinsic biodegradation continues to occur at the Site. Methane concentrations, while lower than previous episodes, are elevated in MW-1 relative to other samples, suggesting anaerobic respiration. The nitrate and sulfate concentrations are lower in MW-1, suggesting use of these electron receptors in biological degradation. In addition, redox is strongly negative in MW-1, suggesting biological activity.

CONCLUSIONS

Based on the results of this most recent quarterly groundwater monitoring event, Versar has made the following conclusions.

- During the January 2001 monitoring event, groundwater surface elevations were 0.14 to 0.46 foot lower than in October 2000.
- TPHg and BTEX were detected in the sample collected from well MW-1. Lower levels of TPHg were detected in samples collected from MW-2, MW-3 and MW-4. BTEX compounds were not detected in the samples collected from wells other than MW-1. Concentrations of TPHg and BTEX in well MW-1 remained relatively consistent during the January 2001 monitoring event. The data indicates that the area of residual impact at the Site remains located near the center of the property, in the vicinity of MW-1.
- Samples collected from wells MW-1, MW-2, and MW-3 to assess the potential for intrinsic bio-remediation indicate that anaerobic intrinsic biodegradation continues to occur at the Site.

FUTURE ACTIVITIES

Versar submitted a Revised Risk-Based Corrective Action (RBCA) analysis in October 2000 for review by the ACHCS. Comments on the Revised RBCA are pending. Quarterly monitoring of the wells and parameters performed during the January 2001 episode will be repeated in April 2001.

REFERENCES

Alameda County Health Care Services Agency. Letter to Mr. John Schovanec, Bank of America Environmental Services. Re: Groundwater monitoring at 2584 Nicholson Street, San Leandro, CA. Dated July 14, 1999.

United States Department of the Interior Geological Survey. Map. *San Leandro Quadrangle, 7.5 Minute Series(Topographic).* 1959, Photorevised 1980.

Versar, Inc.. *Monitoring Well Installation and Groundwater Monitoring Report.* Prepared for Bank of America, N.T. & S.A.. Project No. 4422-001. June 30, 1999.

Versar, Inc.. *Groundwater Monitoring and Utility Survey Report.* Prepared for Bank of America, N.T. & S.A.. Project No. 4422-001. January 6, 2000.

Versar, Inc.. *Groundwater Monitoring Report, January 2000.* Prepared for Bank of America, N.T. & S.A.. Project No. 4422-001. March 21, 2000.

Versar, Inc.. *Groundwater Monitoring Report, April 2000.* Prepared for Bank of America, N.T. & S.A.. Project No. 4422-002. May 31, 2000.

Versar, Inc.. *Groundwater Monitoring Report, July 2000.* Prepared for Bank of America, N.T. & S.A.. Project No. 4422-002. September 26, 2000.

Versar, Inc.. *Groundwater Monitoring Report, October 2000.* Prepared for Bank of America, N.T. & S.A.. Project No. 4422-002. December 20, 2000.

Versar, Inc.. *Risk-Based Corrective Action (RBCA) Analysis Update.* Prepared for Cox, Castle & Nicholson LLP, Project No. 4422-003. March 21, 2000.

STATEMENT OF LIMITATIONS

The conclusions presented above are based on the agreed-upon scope of work outlined in the beginning of this report. Versar makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others and used by Versar. It is possible that information exists beyond the scope of this investigation. Also, changes in Site use may have occurred sometime in the past due to variations in rainfall, temperature, water usage, economic, agricultural, or other factors. Additional information that was not found or available to Versar at the time of the writing of this report may result in a modification of the conclusions presented. This report is not a legal opinion.

The services performed by Versar have been conducted in a manner consistent with the level of care ordinarily exercised by members of our profession currently practicing under similar conditions. No other warranty expressed or implied is made.

This Quarterly Monitoring Report was prepared by Versar on behalf of Bank of America. Ms. Annette Cornelius, Environmental Assessor, performed the groundwater sample collection. Mr. Scott Allin, Registered Environmental Assessor, prepared the report, and supervised the field activities. Mr. Tim Berger, Registered Geologist, reviewed the report.

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Reviewed by:

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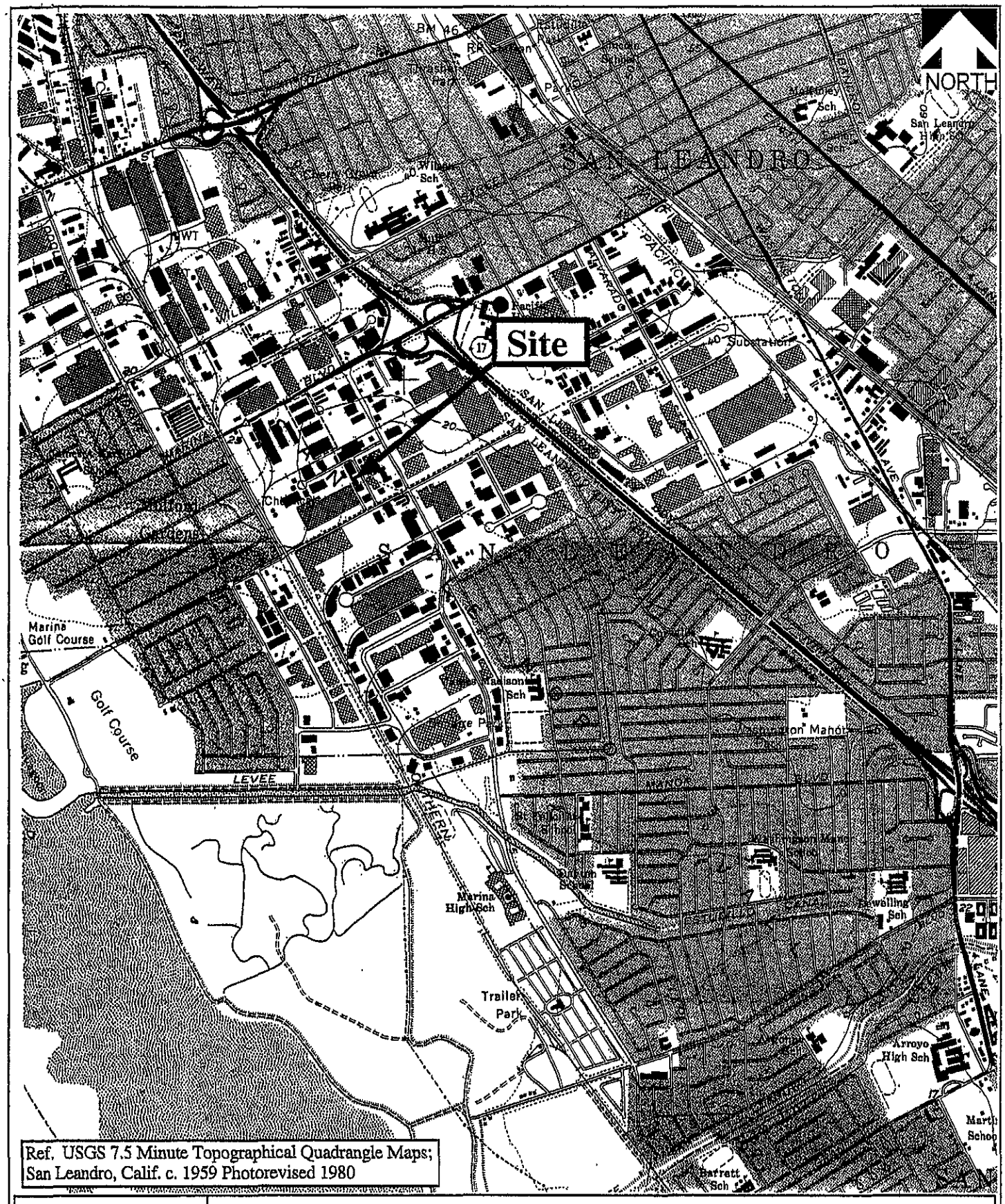
Attachment I - Figures
Attachment II - Tables
Attachment III - Decontamination and Groundwater Monitoring Well Sampling Procedures
Attachment IV - Monitoring Well Purge Tables
Attachment V- Laboratory Analytical Reports and Chain-of-Custody Documentation
Attachment VI - Certificate of Disposal for Purge Water

cc: Amir Gholami (Alameda County)
Mike Bakaldin (City of San Leandro)

ATTACHMENT I

Figures



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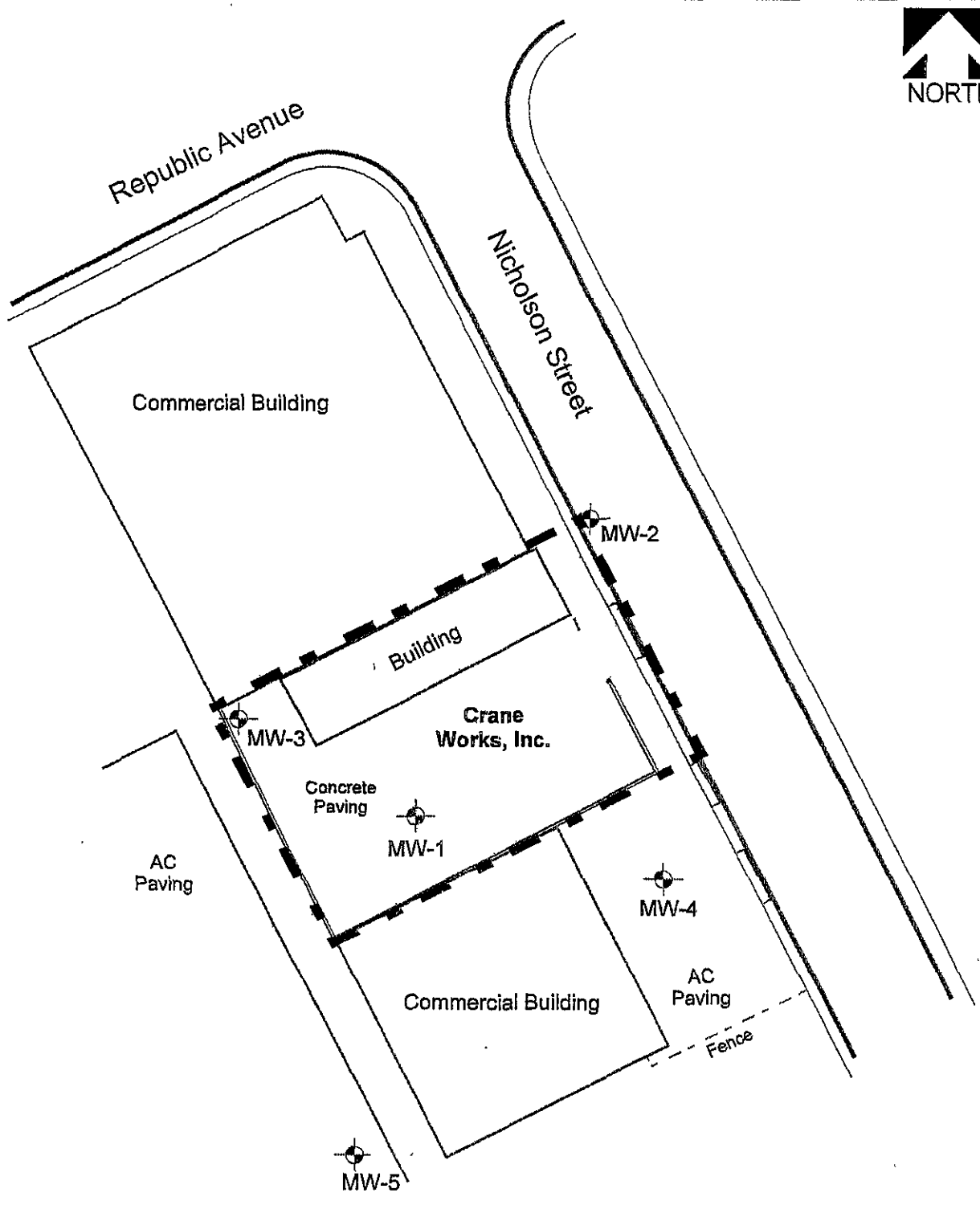
SITE LOCATION

2585 Nicholson Street
San Leandro, California

Figure 1



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Dr. By:	Dale Anderson
Date:	5/10/99
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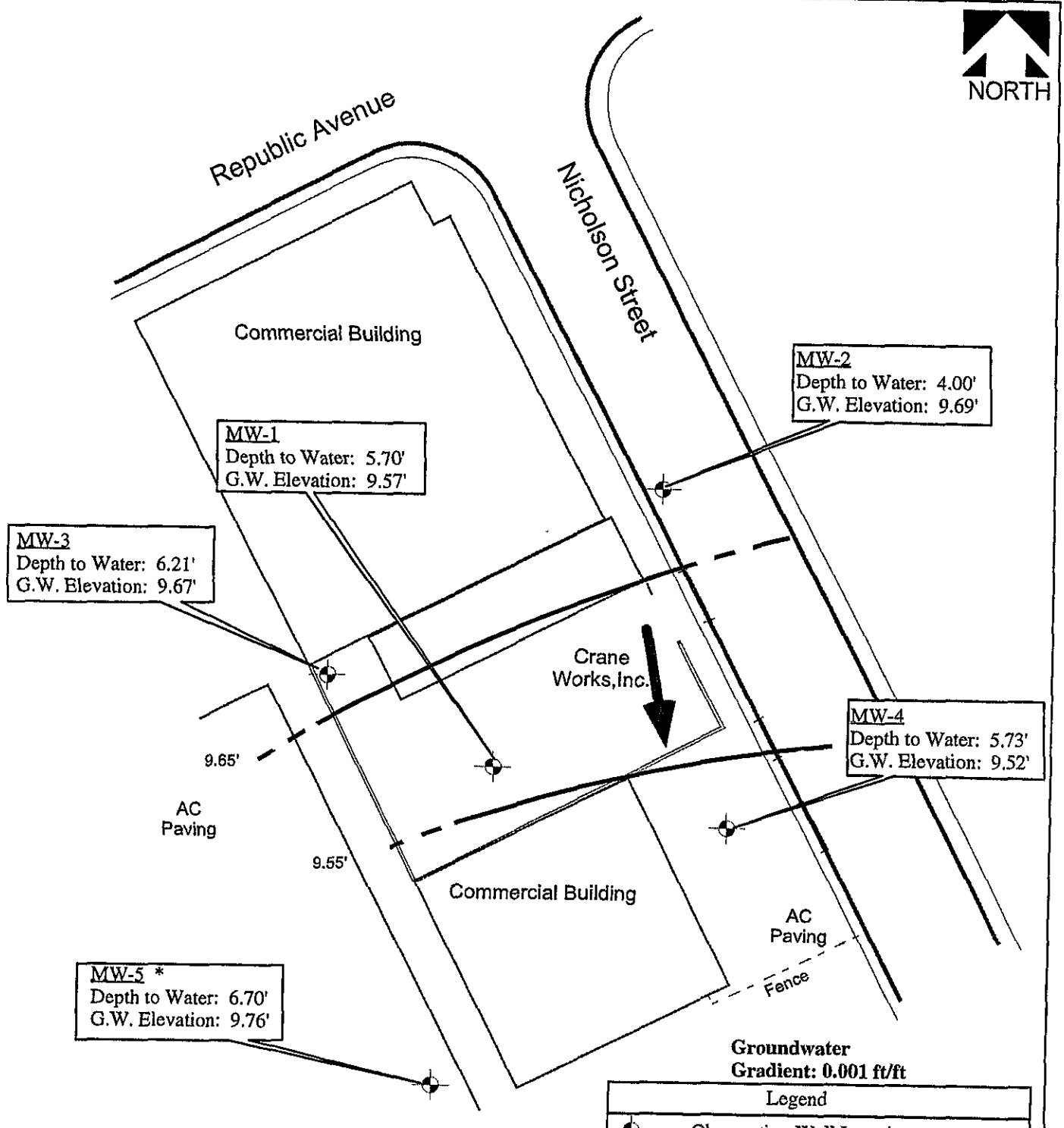
SITE LAYOUT AND MONITORING WELL LOCATION MAP

2585 Nicholson Street
San Leandro, California

Figure 2



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Groundwater Contour Map

January 23, 2001
2585 Nicholson Street
San Leandro, California

Figure 3

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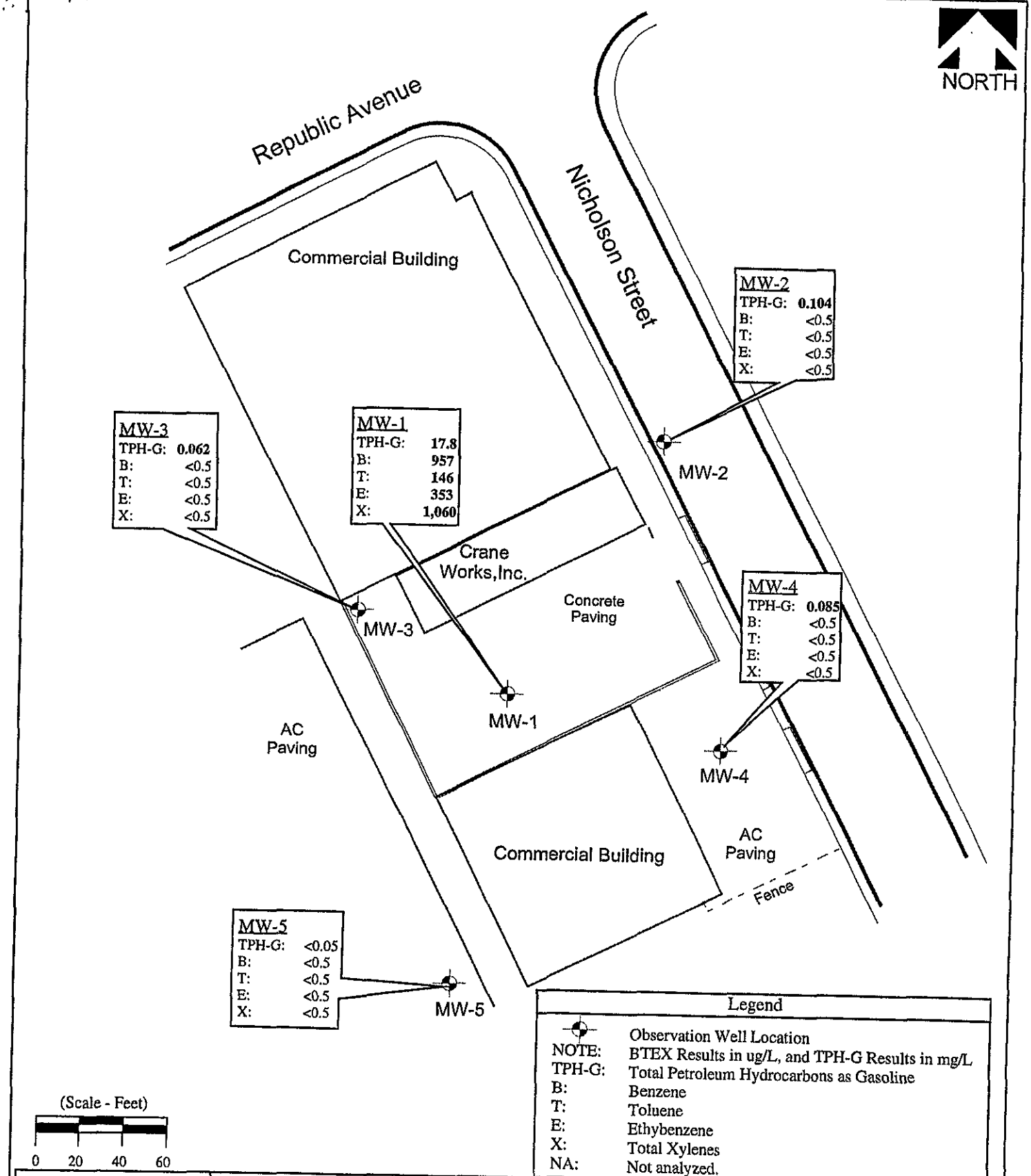

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Laboratory Analytical Results For Groundwater Samples January 23, 2001

2585 Nicholson Street
San Leandro, California

Figure 4

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ATTACHMENT II

Tables

Table 1
Groundwater Elevation Data
2585 Nicholson Street
San Leandro, California

		Groundwater Monitoring Well					Hydraulic gradient magnitude (ft/ft)	General gradient direction
		MW-1	MW-2	MW-3	MW-4	MW-5		
Well casing elevation (feet amsl)		**15.27**	**13.69**	**15.88**	**15.25**	**16.46**	---	---
April 29, 1999	Depth to groundwater (feet toc)	5.33	3.76	5.88	5.40	6.64		
	Groundwater elevation (feet amsl)	**9.94**	**9.93**	**10.00**	**9.85**	**9.82**	**0.001**	Southeast
July 28,1999	Depth to groundwater (feet toc)	5.85	4.19	6.37	5.84	7.11		
	Groundwater elevation (feet amsl)	**9.42**	**9.50**	**9.51**	**9.41**	**9.35**	**0.001**	Southeast
	Change from previous elevation	-0.52	-0.43	-0.49	-0.44	-0.47		
October 28, 1999	Depth to groundwater (feet toc)	5.45	4.06	5.79	5.60	6.68		
	Groundwater elevation (feet amsl)	**9.82**	**9.63**	**10.09**	**9.65**	**9.78**	**0.002**	Easterly
	Change from previous elevation	0.40	0.13	0.58	0.24	0.43		
January 20, 2000	Depth to groundwater (feet toc)	5.13	3.70	5.63	5.25	6.43		
	Groundwater elevation (feet amsl)	**10.14**	**9.99**	**10.25**	**10.00**	**10.03**	**0.001**	Easterly
	Change from previous elevation	0.32	0.36	0.16	0.35	0.25		
April 13, 2000	Depth to groundwater (feet toc)	4.95	3.61	5.41	5.06	6.15		
	Groundwater elevation (feet amsl)	**10.32**	**10.08**	**10.47**	**10.19**	**10.31**	**0.002**	Easterly
	Change from previous elevation	0.18	0.09	0.22	0.19	0.28		
July 20, 2000	Depth to groundwater (feet toc)	5.74	4.06	6.27	5.77	7.11		
	Groundwater elevation (feet amsl)	**9.53**	**9.63**	**9.61**	**9.48**	**9.35**	**0.001**	South/Southeast
	Change from previous elevation	-0.79	-0.45	-0.86	-0.71	-0.96		
October 26, 2000	Depth to groundwater (feet toc)	5.35	3.85	5.75	5.28	6.56		
	Groundwater elevation (feet amsl)	**9.92**	**9.84**	**10.13**	**9.97**	**9.90**	N/A	N/A
	Change from previous elevation	-0.40	-0.24	-0.34	-0.22	-0.41		
January 23, 2001	Depth to groundwater (feet toc)	5.70	4.00	6.21	5.73	6.70		
	Groundwater elevation (feet amsl)	**9.57**	**9.69**	**9.67**	**9.52**	**9.76**	**0.001**	South/Southeast
	Change from previous elevation	-0.35	-0.15	-0.46	-0.45	-0.14		

Notes and Abbreviations:
ft/ft = feet per foot
amsl = above mean sea level
toc = top of casing
N/A = not available

Table 2
Analytical Results for Groundwater Samples
2585 Nicholson Street
San Leandro, California

Monitoring Well No.	Date	Chemicals of Concern								
		TPH-G (mg/L)	TPH-D (mg/L)	TPH-MO (mg/L)	TPH-K (mg/L)	TPH-SS (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	Jun-92	10	ND	--	--	--	110	81	62	280
	Nov-92	9.8	ND	--	--	--	23	14	22	96
	Apr-93	18	0.56	ND	ND	0.37	42	47	50	190
	Jul-93	27	ND	ND	ND	ND	40	45	63	190
	Dec-93	7.8	3.8	ND	ND	ND	13	16	20	77
	Mar-94	280	0.62	ND	ND	3.3	970	880	620	1,700
	Jun-94	8.5	ND	ND	ND	ND	23	13	8.5	19
	Sep-94	2.4	0.052	ND	ND	ND	5.3	2.6	2.5	6
	Dec-94	4.8	1.3	ND	ND	1.0	32	32	16	50
	Apr-95	74	3.7	ND	ND	0.57	320	350	350	940
	Sep-95	33	46	ND	ND	4.9	140	270	260	1,100
	May-99	8.1	ND	ND	--	--	1,400	31	82	360
	Jul-99	3.5	1.7	--	--	--	252	23	43	179
	Oct-99	4.9	--	--	--	--	270	34	<5	370
	Jan-00	22.4	<0.5	--	--	--	1,300	402	483	2,490
	Apr-00	13	--	--	--	--	1,130	226	335	1,410
	Jul-00	28.4	<0.05	<0.5	--	--	1,470	190	299	967
	Oct-00	12.9	--	--	--	<1.0	1,000	197	353	1,400
	Jan-01	17.8	--	--	--	--	957	146	353	1,060
MW-2	Apr-99	ND	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	<0.1	<0.1	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	<0.1	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	0.118	--	--	--	--	0.7	<0.5	<0.5	<0.5
	Apr-00	<0.05	--	--	--	--	0.5	<0.5	<0.5	<0.5
	Jul-00	<0.4	--	--	--	--	0.8	<0.5	<0.5	<0.5
	Oct-00	<0.05	--	--	--	--	<0.5	<0.5	<0.5	<1.0
	Jan-01	0.104	--	--	--	--	<0.5	<0.5	<0.5	<0.5
MW-3	Apr-99	ND	0.54	ND	--	--	ND	ND	ND	ND
	Jul-99	0.3	<0.1	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	0.23	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	0.163	<0.05	--	--	--	0.8	<0.5	<0.5	<0.5
	Apr-00	0.09	--	--	--	--	0.7	<0.5	<0.5	<0.5
	Jul-00	<0.4	--	--	--	--	2.0	<0.5	<0.5	<0.5
	Oct-00	<0.05	--	--	--	--	<0.5	<0.5	<0.5	<1.0
	Jan-01	0.062	--	--	--	--	<0.5	<0.5	<0.5	<0.5
MW-4	Apr-99	0.11	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	0.12	<0.1	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	<0.1	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	0.106	--	--	--	--	0.9	<0.5	<0.5	<0.5
	Apr-00	0.099	--	--	--	--	1.0	<0.5	<0.5	<0.5
	Jul-00	--	--	--	--	--	--	--	--	--
	Oct-00	0.139	--	--	--	--	0.6	<0.5	<0.5	<1.0
	Jan-01	0.085	--	--	--	--	<0.5	<0.5	<0.5	<0.5
MW-5	Apr-99	0.27	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	0.57	<0.1	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	0.54	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	0.231	--	--	--	--	1.9	<0.5	<0.5	<0.5
	Apr-00	0.353	--	--	--	--	3.5	<0.5	<0.5	<0.5
	Jul-00	<0.4	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-00	0.156	--	--	--	--	1.0	<0.5	<0.5	<1.0
	Jan-01	<0.05	--	--	--	--	<0.5	<0.5	<0.5	<0.5

Notes and Abbreviations:

TPH-G = total petroleum hydrocarbons as gasoline.

TPH-D = total petroleum hydrocarbons as diesel.

TPH-K = total petroleum hydrocarbons as kerosene.

TPH-SS = total petroleum hydrocarbons as stoddard solvent.

µg/L = micrograms per litter, equivalent to parts per billion (ppb).

mg/L = milligrams per litter, equivalent to parts per million (ppm).

ND = not detected at or above the methods reporting limit.

-- = not analysed

Table 3

Intrinsic Bioremediation Indicater Analytical Results for Groundwater Samples
2585 Nicholson Street
San Leandro, California

		Bioremediation Indicators					
Monitoring Well No.	Date	Methane (µg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Redox (mV)	D/O (mg/L)
MW-1	Jan-00	2590	0.27	46	576	-106	2.51
	Apr-00	3.1	<0.20	14	614	137	0.94
	Jul-00	2170	<0.5	13	524	-167	1.01
	Oct-00	2660	<0.5	32	578	-107	0.69
	Jan-01	156	<0.1	10	558	-156	1.17
MW-2	Jan-00	1.5	3.04	82	530	-048	1.63
	Apr-00	<0.01	24	75	498	195	0.93
	Jul-00	3.1	6.3	59	706	-015	1.05
	Oct-00	2.5	24	24	546	164	2.63
	Jan-01	1.9	5.5	90	468	185	7.97
MW-3	Jan-00	13.0	1.37	45	346	-055	2.61
	Apr-00	0.02	3.2	20	304	061	0.98
	Jul-00	31	1.9	44	312	069	0.95
	Oct-00	42	8.9	47	366	-009	2.28
	Jan-01	16	2.2	28	368	157	7.34
MW-4	Jan-00	--	--	--	--	-060	1.49
	Apr-00	--	--	--	--	181	0.94
	Jul-00	--	--	--	--	033	0.76
	Oct-00	--	--	--	--	132	3.05
	Jan-01	--	--	--	--	189	11.2
MW-5	Jan-00	--	--	--	--	-072	1.91
	Apr-00	--	--	--	--	116	1.48
	Jul-00	--	--	--	--	-045	1.02
	Oct-00	--	--	--	--	125	0.96
	Jan-01	--	--	--	--	201	11.97

Notes and Abbreviations:

Methane by Gas Chromatography / Mass Spectroscopy

Nitrate by EPA method 353.2

Sulfate by EPA method 375.4

Alkalinity by EPA method 2320B

Redox - Reduction/Oxidation potential in millivolts, field measured with direct reading instrument, average of last three readings.

D/O - Dissolved Oxygen, field measured with direct reading instrument, average of last three readings.

µg/L = micrograms per litter, equivalent to parts per billion (ppb).

mg/L = milligrams per litter, equivalent to parts per million (ppm).

ND = not detected at or above the methods reporting limit.

-- = not analysed

ATTACHMENT III

Decontamination and Groundwater Monitoring Well Sampling Procedures

1.0 DECONTAMINATION PROCEDURES

The decontamination procedures for non-dedicated field equipment and well development/purging equipment are given below. These procedures are followed during all field activities.

1. Non-dedicated well development, purging, and sampling equipment is carefully pre-cleaned prior to each use, as follows:

   a. Carefully brush off any loose foreign debris with a soft bristle brush.

   b. Rinse the equipment thoroughly in clean water.

   c. Wash the equipment in a non-phosphate detergent bath.

   d. Rinse thoroughly in clean water.

   e. Rinse thoroughly with deionized water.

   f. Air dry in a dust-free environment.

   g. Store in unused plastic bags or other suitable cover until use.

2. Clean disposable gloves are worn by all field personnel when handling decontaminated equipment.

2.0 COLLECTION OF SAMPLES

2.1 Groundwater Sampling

Groundwater samples are collected for laboratory analysis using the procedures given below.

1. Open the well and measure the organic vapor concentration with a flame-ionization detector (FID) or photoionization detector (PID).

2. Measure the water levels (if any) in the well using a decontaminated measuring device. All measurements must be made to the nearest 0.01 foot, and measured relative to the top of the casing. Record the depth of the water in the field notebook.

3. Inspect the disposable bailer to ensure that the bottom valve assembly is working correctly.

4. Begin purging the well by inserting a bailer into the PVC monitoring well casing and carefully lower it into the well. Take care to avoid agitating and aerating the fluid column in the well.

5. Slowly withdraw the bailer and transfer the water samples to a sampling containers.

6. Measure the temperature, pH, conductivity, and turbidity. Record these and all subsequent measurements in the field notebook.

7. Continue purging the well (a minimum of three well volumes) until the temperature, pH, conductivity, and turbidity have stabilized, or the well is dry.

8. When the water has recovered to 80 percent of the original level, carefully lower a new disposable bailer into the well and recover groundwater samples.

9. Fill the appropriate sample containers by releasing water from the bailer via the bottom emptying device with a minimum of agitation. The most volatile parameters are collected first, proceeding to the least volatile parameters.

10. Place the purge water in a DOT-approved 55-gallon drums.

3.0 ANALYSIS OF SAMPLES

Samples are submitted to a California state-certified laboratory for analysis.

4.0 SAMPLE HANDLING

4.1 Sample Containers, Preservation, and Holding Times

All samples are collected, placed in containers, preserved, and analyzed within the time constraints with applicable local, provincial, and federal procedures. All sample containers are precleaned in accordance with prescribed EPA methods. A custody seal is placed around all sample container lids to prevent leaks and unauthorized tampering with individual samples following collection and prior to the time of analysis.

4.2 Sample Tracking and Management

All samples are tracked using a standard chain-of-custody form. The chain of custody record includes the following information:

1. Sample number
2. Signature of collector
3. Date and time of collection
4. Sample collection location
5. Sample type
6. Signature of persons involved in the chain-of-possession
7. Inclusive dates of possession
8. Analytical parameters
9. Pertinent field observations

The custody record is completed using waterproof ink. Corrections are made by drawing a line through, initialing the error, and then entering the correct information.

Custody of the samples begins at the time of sample collection and are maintained by the sampling team supervisor until samples are relinquished for shipment to the laboratory, or until samples are hand-delivered to the designated laboratory sample custodian. Partial sample sets being accumulated for hand-delivery to the laboratory are stored in coolers with chain-of-custody records sealed in plastic bags and placed in the cooler with the sample sets.

ATTACHMENT IV

Monitoring Well Purge Tables

MONITORING WELL PURGE TABLE

Project Number: 10.4422.4422.003	**Site Name:** Former Bank of America-San Leandro
Well Number: MW1	**Date(s) Purged:** 1/23/01
OVA - Ambient: No Reading Taken	**Purge Method:** Centrifugal Pump
OVA - Vault: No Reading Taken	**Purge Rate:**
OVA - Casing: No Reading Taken	**Date & Time Sampled:** 1/23/01 -
Water Level - Initial: 5.20 Feet@ 9:07	**Purged & Sampled:** Annette Cornelius
Water Level - Final: ~~5.61~~ Feet@ ~~15:46~~ 4.82	**Sampling Method:** Disposable Bailer
Well Depth: 18.0 feet	**Free Product:**
Well Diameter: 6 inch	**Sheen:**
Well Casing Volume:	**Odor:**

5.85
15:58

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Redox	Turbidity
1525	1 ~~0.5~~	14.4	7.0	694	1.9	-062	High
1529	10 2	17.4	6.9	710	1.0	-125	clear
1533	20 4	17.7	7.0	350	1.8	-174	clear
1537	30 5	18.1	7.1	1027	1.2	-167	clear
1543	45	18.0	7.1	406	0.9	-150	clear
1550	55	18.1	7.1	996	1.4	-153	clear
		Sample	1600				

Field Notes:

MONITORING WELL PURGE TABLE

Project Number: 10.4422.4422.003	**Site Name:** Former Bank of America-San Leandro
Well Number: MW3	**Date(s) Purged:** 1/23/01
OVA - Ambient: No Reading Taken	**Purge Method:** Disposable Bailer
OVA - Vault: No Reading Taken	**Purge Rate:**
OVA - Casing: No Reading Taken	**Date & Time Sampled:** 1/23/01 -
Water Level - Initial: 6.21 Feet@ 9:11	**Purged & Sampled:** Annette Cornelius
Water Level - Final: 6.20 Feet@ 1436	**Sampling Method:** Disposable Bailer
Well Depth: feet	**Free Product:**
Well Diameter: 2 inch	**Sheen:**
Well Casing Volume:	**Odor:** 7.5 Di @ 14:16

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Redox	Turbidity
1418	0.5	16.3	7.1	118	7.4	139	
1422	2	17.1	7.1	500	8.0	059	
1425	3	18.1	7.3	479	6.6	044	
1431	5	18.1	7.4	219	5.4	068	
		Sampled	1445				

Field Notes:

MONITORING WELL PURGE TABLE

Project Number: 10.4422.4422.003	**Site Name:** Former Bank of America-San Leandro
Well Number: MW2	**Date(s) Purged:** 1/23/01
OVA - Ambient: No Reading Taken	**Purge Method:** Disposable Bailer
OVA - Vault: No Reading Taken	**Purge Rate:**
OVA - Casing: No Reading Taken	**Date & Time Sampled:** 1/23/01 -
Water Level - Initial: 4.0 Feet@ 8:36	**Purged & Sampled:** Annette Cornelius
Water Level - Final: 4.0 Feet@ 13:31	**Sampling Method:** Disposable Bailer
Well Depth: feet 14.20	**Free Product:**
Well Diameter: 2 inch	**Sheen:**
Well Casing Volume:	**Odor:** DO 13:10 = 7.4

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Redox mv	Turbidity
13:21	0.5	15.8	7.3	422	7.8 ~~8.0~~	220	clear
13:27	2	17.6	7.2	606	8.3	208	slight
1331	3	18.1	7.2	537	8.3	208	"
13:36	5	17.4	7.3	804	7.3	140	"
Sampled		at	13:55				

Field Notes:

MONITORING WELL PURGE TABLE

Project Number: 10.4422.4422.003	**Site Name:** Former Bank of America-San Leandro
Well Number: MW5	**Date(s) Purged:** 1/23/01
OVA - Ambient: No Reading Taken	**Purge Method:** Disposable Bailer
OVA - Vault: No Reading Taken	**Purge Rate:**
OVA - Casing: No Reading Taken	**Date & Time Sampled:** 1/23/01 -
Water Level - Initial: 6.70 Feet@ 8:51	**Purged & Sampled:** Annette Cornelius
Water Level - Final: 7.06 Feet@ 10:30	**Sampling Method:** Disposable Bailer
Well Depth: feet 15.55	**Free Product:**
Well Diameter: 2 inch	**Sheen:**
Well Casing Volume: 1.5 = 4.5	**Odor:**

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Redox mV	Turbidity
10:10	0.5	17.2	6.9	1457	13.5	235	slight
10:14	2.5	17.5	6.9	1540	14.1	199	
10:18	3.5	18.1	6.9	1541	11.5	201	
10:23	4.5	18.3	6.9	1557	10.3	203	
	Sample	11:31					

Field Notes: Casing lid gone - casing intact

Hight < 80%
Hight in 8.25 (?)
DTW (.80)
15.5 - DTW = ( )

ATTACHMENT V

Laboratory Analytical Reports and Chain-of-Custody Documentation

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Annette Cornelius
Versar Incorporated
7844 Madison Avenue, Suite 167
Project: Fair Oaks, CA 95628
Method: 4422 033 / B of A San Leandro
EPA 8020/8015m

Date Sampled: 01/23/01
Date Received: 01/24/01
BTEX/TPHg Analyzed: 02/02/01

Client Sample I.D.	MW-1		MW-2		MW-3		MW-4		MW-5	
LAB. NO.	W0101366		W0101367		W0101368		W0101369		W0101370	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results
Benzene	100	957	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Toluene	100	146	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Ethylbenzene	100	353	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Total Xylenes	100	1060	0.50	ND	0.50	ND	0.50	ND	0.50	ND
TPH as Gasoline	10000	17800	50.0	104	50.0	62.0	50.0	85.0	50.0	ND

QA/QC %RECOVERY		
	LCS	LCSD
Benzene	96	98
Toluene	93	96
Ethylbenzene	95	98
Total Xylenes	96	98

QA/QC Analyzed: 02/02/01
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
R/L = Reporting Limit
Water samples reported in µg/L
Soil samples reported in mg/kg

Laboratory Representative

02/12/01
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Annette Cornelius
Versar Incorporated
7844 Madison Avenue, Suite 167
Fair Oaks, CA 95628
Project: 4422 033 / B of A San Leandro

Date Sampled: 01/23/01
Date Received: 01/24/01

Method: EPA RSKSOP-175 **Units:** µg/L **Date Analyzed:** 01/30/01

Client Sample I.D.	MW-1		MW-2		MW-3	
LAB. NO.	W0101366		W0101367		W0101368	
ANALYTE	R/L	Results	R/L	Results	R/L	Results
Methane	1.0	156	1.0	1.9	1.0	16.0

QA/QC %RECOVERY		
	LCS	LCSD
Methane	91	76

QA/QC Analyzed: 01/30/01

Method: Standard Methods 2320B **Units:** mg/L as $CaCO_3$ **Date Analyzed:** 02/01/01

Client Sample I.D.	MW-1		MW-2		MW-3	
LAB. NO.	W0101366		W0101367		W0101368	
ANALYTE	R/L	Results	R/L	Results	R/L	Results
Alkalinity due to Bicarbonate	5.0	558	5.0	468	5.0	368

QA/QC %RECOVERY				
	LCS	LCSD	MS	MSD
Alkalinity due to Bicarbonate	105	97	82	108

QA/QC Analyzed: 02/01/01

Method: EPA 375.4 **Units:** mg/LSO_4^{2-} **Date Analyzed:** 02/09/01

Client Sample I.D.	MW-1		MW-2		MW-3	
LAB. NO.	W0101366		W0101367		W0101368	
ANALYTE	R/L	Results	R/L	Results	R/L	Results
Sulfate	4	10	4	90	4	28

QA/QC %RECOVERY				
	LCS	LCSD	MS	MSD
Sulfate	125	125	155*	155*

QA/QC Analyzed: 02/09/01
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
R/L = Reporting Limit

* High recoveries due to matrix interferences.

Laboratory Representative

02/12/01
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Annette Cornelius
Versar Incorporated
7844 Madison Avenue, Suite 167
Fair Oaks, CA 95628
Project: 4422 033 / B of A San Leandro
Method: EPA 352.1

Date Sampled: 01/23/01
Date Received: 01/24/01
Date Analyzed: 01/25/01

Client Sample I.D.	MW-1		MW-2		MW-3	
LAB. NO.	W0101366		W0101367		W0101368	
ANALYTE	R/L	Results	R/L	Results	R/L	Results
Nitrate as Nitrogen	0.10	ND	0.10	5.5	0.10	2.2

QA/QC %RECOVERY			
	LCS	MS	MSD
Nitrate	99	99	99

QA/QC Analyzed: 01/25/01
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
R/L = Reporting Limit
Water samples reported in mg/L
Soil samples reported in mg/kg

Laboratory Representative

02/12/01
Date Reported

Versar INC.

CHAIN OF CUSTODY RECORD

DUE 01-31-01

BIN # A-51

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE Y / N
4422.503	B of A San Leandro		

SAMPLERS: *(Signature)* Annette Cornelius

(Printed) Annette Cornelius

101085

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-g/BTEX	Methane	Alkalinity	Sulfate	Nitrate	REMARKS
mw-1	1/23/01	16:00		X		4	X	X	X	X	X	WO101366
mw-2		13:55				4	X	X	X	X	X	WO101367
mw-3		14:45				4	X	X	X	X	X	WO101368
mw-4		12:36				3	X					WO101369
mw-5		11:31				2	X					WO101370

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Annette Cornelius	1/24/01 10:20				
(Printed) Annette Cornelius		(Printed)	(Printed)		(Printed)

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
		Crystal Schwartz	01-24-01 1020	Standard turn Around time for results to Scott Allin at 916 962 2678
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

ATTACHMENT VI

Certificate of Disposal for Purge Water

IWM, Inc.

INTEGRATED WASTESTREAM MANAGEMENT, INC.
950 AMES AVENUE, MILPITAS, CA 95035
PHONE: 408.942.8955 FAX: 408.942.1499

MAR 15 2001

CERTIFICATE OF DISPOSAL

Generator Name:	Bank of America NA	Facility Name:	Crane Works
Address:		Address:	2585 Nicholson St.
			San Leandro, CA
Contact:		Facility Contact:	Scott Allin
Phone:		Phone:	916-863-9333

IWM Job #:	91234-DW
Description of Waste:	2 Drums of Non-Hazardous Water
Removal Date:	02/28/01
Ticket #:	SP280201-MISC

Transporter Information

Name:	IWM, Inc.
Address:	950 Ames Avenue
	Milpitas, CA 95035
Phone:	(408) 942-8955

Disposal Facility Information

Name:	Seaport Environmental
Address:	675 Seaport Blvd
	Redwood City, CA 94063
Phone:	(650) 364-1024

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon William T. DeLon — 28 February 2001

Authorized Representative (Print Name and Signature) — Date