



January 6, 2000

Mr. John A. Schovanec
Bank of America, N.A.
Environmental Services #305478
4000 MacArthur Boulevard, Suite 100
Newport Beach, California 92660

Reference: Groundwater Monitoring and Utility Survey Report
2585 Nicholson Street in San Leandro, California
ES# 305582
Versar Project No. 4422-002

Dear Mr. Schovanec:

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 October 28, 1999. The results of this monitoring event are presented graphically in Figures 3 and 4 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 area over the western and southern edges of the property.

BACKGROUND

According to information presented in the McLaren/Hart soil and groundwater characterization report (McLaren/Hart, 1998), 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 (TPH) as diesel and gasoline in both media. Reportedly, overexcavation was performed during UST removal activities. In 1992, Hageman-



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Aguiar (HA) performed an on Site soil and groundwater investigations, and installed one monitoring well (MW-1) on the central portion of the Site. Groundwater samples were collected by HA from MW-1 between 1992 and 1995. HA identified free-floating product in MW-1 during some of the sampling events, at a maximum thickness of 1.25 inches. In 1998, McLaren/Hart performed a limited investigation of soil and groundwater, both on and off-Site. McLaren/Hart concluded that adequate definition of petroleum hydrocarbons in soil and groundwater had been completed, and that the contaminant plume was relatively stable with minimal off-Site migration of petroleum hydrocarbons. McLaren/Hart recommended installation of additional monitoring wells to confirm the direction of groundwater flow beneath the Site.

In April 1999, Versar installed four additional monitoring wells, and sampled all the Site wells, as described in our *Monitoring Well Installation and Groundwater Monitoring Report*, dated June 30, 1999. The monitoring well locations are depicted in Figure 2, Site Plan. Versar detected petroleum hydrocarbons as gasoline in the southern half of the Site; benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in well MW-1 near the center of the Site. The groundwater gradient was calculated to be approximately 0.001 feet/foot and flowing in a southeasterly direction. Historical analytical results from Site monitoring wells are presented in Table 2 of Attachment II.

QUARTERLY GROUNDWATER MONITORING ACTIVITIES

Versar performed groundwater monitoring of the Site on October 28, 1999, sampling the wells for TPH as gasoline (TPHg) and BTEX. 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, and dissolved oxygen 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 and BTEX.
- Prepare a letter report summarizing the results.



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During the previous quarterly monitoring episode for the Site (July, 1999), Versar requested that TPH as diesel (TPHd) be removed from the analytical suite, since TPH chromatograms from the sampling event indicated the detected petroleum hydrocarbon at the Site is gasoline. Subsequent response from the ACHCS on October 29, 1999, requested TPHd analysis be continued at the Site. However, the October event was performed prior to receipt of this request, and consequently, TPHd analysis was not performed.

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 October 28, 1999, 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 was measured to be flowing to the east-southeast, at a gradient of 0.002 feet per foot. Groundwater surface elevations are 0.13 to 0.58 foot higher than in July 1999. Figure 3 in Attachment I is a groundwater gradient map generated from the October 28, 1999 data.

Groundwater Sampling Activities

On October 28, 1999, 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, and dissolved oxygen 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 were analyzed for TPHg and BTEX by Kemron Environmental Services (Kemron), California State Laboratory Certification No. 2277. 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 October 28, 1999 sampling event was recycled off-site by Integrated Management Waste Stream Incorporated.

ANALYTICAL RESULTS

The analytical results of the TPHg and BTEX analyses are summarized in Table 2 in Attachment II. Figure 4 in Attachment I spatially depicts the analytical results for the October 1999 groundwater monitoring event. The laboratory analytical reports are included in Attachment V.

- TPHg was detected in wells MW-1, MW-3 and MW-5 at concentrations of 4,900 micrograms per liter ($\mu\text{g/L}$), 230 $\mu\text{g/L}$, and 540 $\mu\text{g/L}$, respectively.
- Benzene was only detected in well MW-1 at a concentration of 270 $\mu\text{g/L}$.
- Toluene was only detected in well MW-1 at a concentration of 34 $\mu\text{g/L}$.
- Ethylbenzene was not detected in Site wells this quarter.
- Total xylene isomers was only detected in well MW-1 at a concentration of 370 $\mu\text{g/L}$.

SUPPLEMENTAL UTILITIES INFORMATION

In their July 14, 1999 letter, ACHCS requested information regarding the depth of gas, electric, and storm drain trenches adjacent to the Site, as depicted in Figure 2 of Versar's, June 30, 1999, *Monitoring Well Installation and Groundwater Sampling Report*. Versar's attempt to obtain utility information was unsuccessful during the July, 1999 monitoring period. In their October 29, 1999 letter, ACHCS reiterated their request for information regarding the depths of the utilities. Utility information obtained during this monitoring period is described below.

During the October 1999 monitoring period, Versar did not receive responses from underground utility operators in the vicinity of the Site. To obtain the information requested by ACHCS, Versar measured to the depth to the bottom of the access point (valve box, drop inlet, or manhole) for each utility that could be accessed at and adjacent to the Site. The bottom of the access point is typically deeper than the pipeline or conduit. During the survey, Versar identified an additional utility (sanitary sewer) near the centerline of Nicholson Street, running parallel with the roadway. The greatest depth to the bottom of an access point was measured to be 5.5 feet bgs for this sanitary sewer line. The next deepest utility/conduit was measured to be 3.5 feet bgs.

Based on this information and highest depth to groundwater identified beneath the Site (>4 feet bgs), Versar believes that the only utility with the potential to influence groundwater migration



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is the sanitary sewer in the center of Nicholson Street. The nearest monitoring well to the utility is MW-2, which is located on the southwest portion of the street. Since MW-2 is located between the Site source area and the underground sanitary sewer line, any potential influences on groundwater migration are not anticipated to meaningfully influence contaminant migration. Based on this information, there is no evidence that utilities are effecting plume migration at the Site and no further assessment is warranted. Should additional information be obtained from the utility providers, Versar will include the information in the subsequent quarterly monitoring report.

CONCLUSIONS

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

- During the October 1999 sampling event, the groundwater gradient was calculated to be 0.002 ft/ft flowing to the east-southeast. Groundwater surface elevations are approximately 0.13 to 0.58 foot higher than in July 1999.
- TPHg and BTX were detected at well MW-1, and were not detected in any of the other wells. This indicates that the area of residual contamination at the Site is located near the center of the property, in the vicinity of MW-1.
- Actionable concentrations of benzene were detected only at well MW-1. No other actionable concentrations of the constituents of concern were detected at the Site.
- Versar measured the depth of utilities adjacent to the Site, as requested by ACHCS. The deepest utility was found to be approximately 5.5 feet bgs, and is in relatively close proximity to MW-2. All other utilities were found to be above historic high groundwater levels. Since MW-2 is located between the Site source area and the underground sanitary sewer line, any potential influences on groundwater migration are not anticipated to meaningfully influence contaminant migration. Based on this information, there is no evidence that utilities are effecting plume migration at the Site and no further assessment is warranted. Should additional information be obtained from the utility providers, Versar will include the information in the subsequent quarterly monitoring report.
- As indicated previously, chromatograms from the July 1999 quarterly monitoring episode indicated the detected petroleum hydrocarbon at the Site is gasoline. Given this information, Versar requests TPHd be discontinued from the suite of groundwater analyses.



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FUTURE ACTIVITIES

Quarterly groundwater monitoring will continue at the Site to characterize groundwater fluctuations, flow direction, and contaminant concentrations. Natural attenuation parameters will be collected during the next monitoring event. This information is required in considering closure for the Site by the ACHCS. The next quarterly monitoring event is scheduled for January 2000.

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.

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.



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

cc: Juliett Shin (Alameda County)
Mike Bakaldin (City of San Leandro)

ATTACHMENT I

Figures



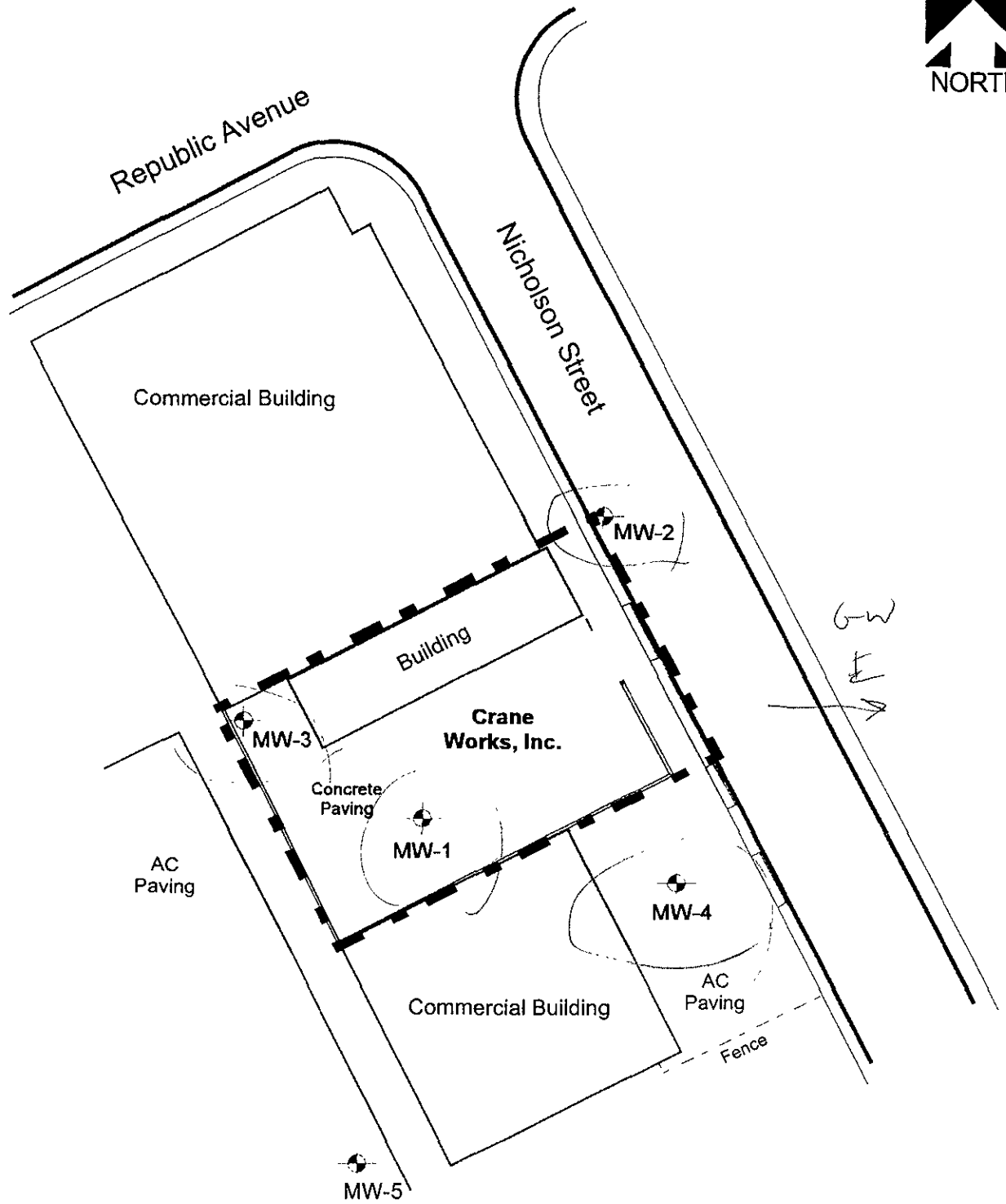
Ref. USGS 7.5 Minute Topographical Quadrangle Maps;
 San Leandro, Calif. c. 1959 Photorevised 1980

Dr. By: Dale Anderson
 Date: 5/10/99
 Scale: 1 inch=2,000 feet
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SITE LOCATION
 2585 Nicholson Street
 San Leandro, California

Figure
 1



(Scale - Feet)

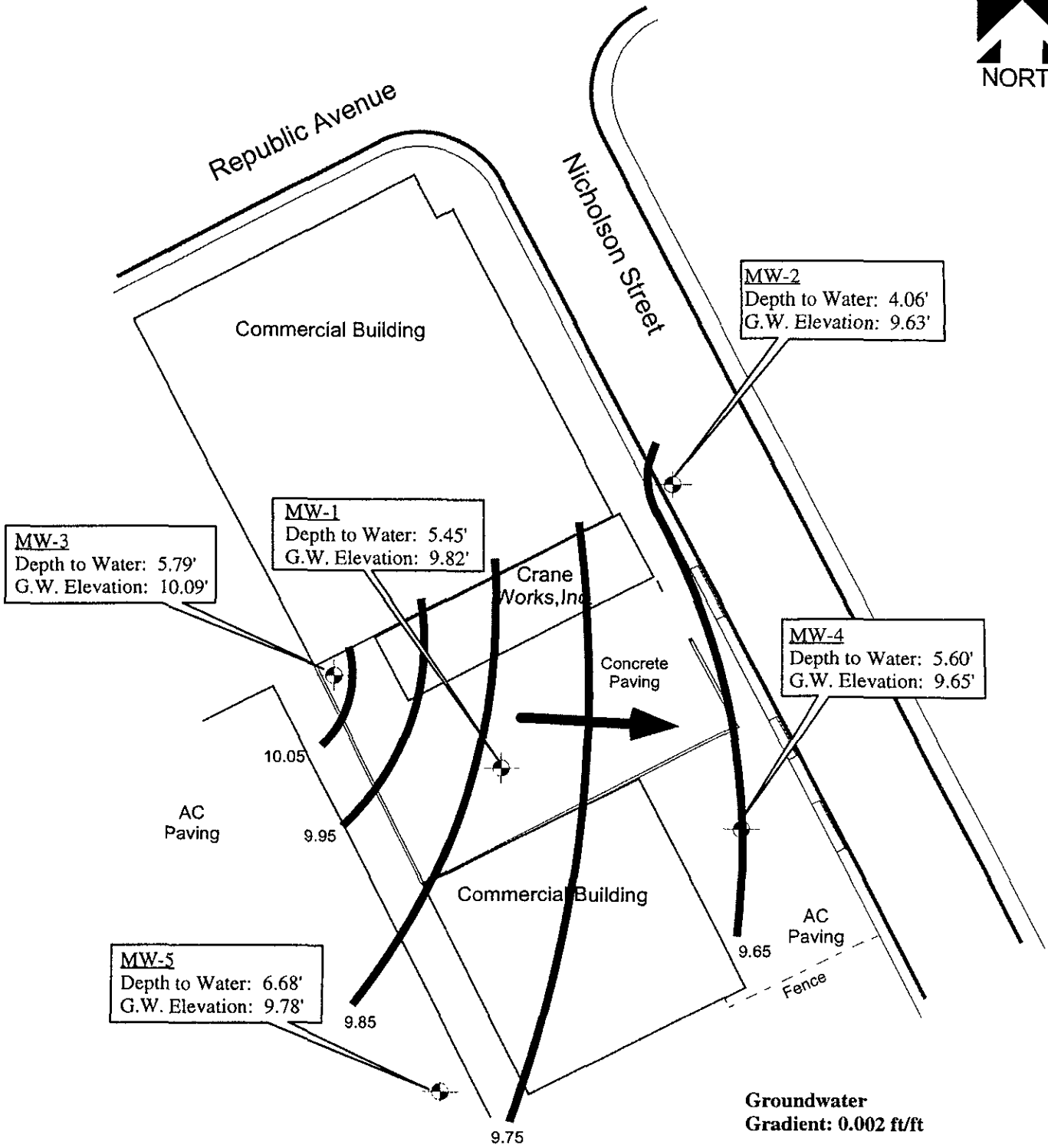


Dr. By: Dale Anderson
Date: 5/10/99
Scale: 1 inch= 60 feet
Versar Project No. 4422-001
Path/File : P:\BOFA\SanLeandro\Report\Fig2

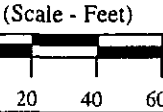
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**SITE LAYOUT AND MONITORING
WELL LOCATION MAP
2585 Nicholson Street
San Leandro, California**

**Figure
2**



Legend	
	Observation Well Location
9.85	Groundwater Contour Interval in Feet Above Mean Sea Level
	Groundwater Flow Direction

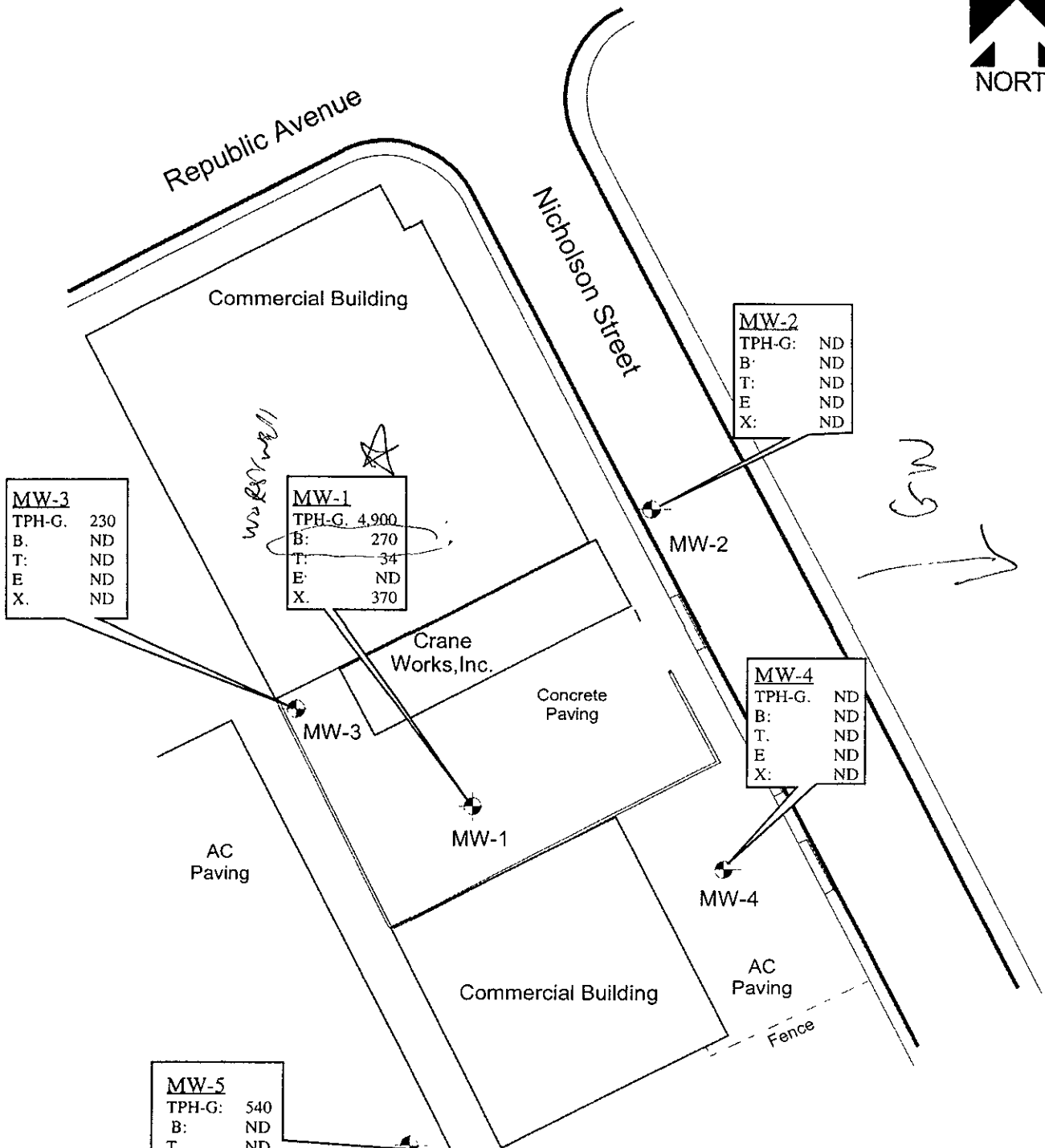


Dr. By: Dale Anderson
Date: 11/29/99
Scale: 1 inch= 60 feet
Versar Project No. 4422-001
Path\File PBOFA\SanLeandroReport\Fig3

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Groundwater Contour Map
 October 28, 1999
 2585 Nicholson Street
 San Leandro, California

Figure 3



MW-3	
TPH-G:	230
B:	ND
T:	ND
E:	ND
X:	ND

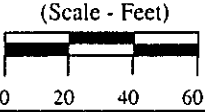
MW-1	
TPH-G:	4,900
B:	270
T:	34
E:	ND
X:	370

MW-2	
TPH-G:	ND
B:	ND
T:	ND
E:	ND
X:	ND

MW-4	
TPH-G:	ND
B:	ND
T:	ND
E:	ND
X:	ND

MW-5	
TPH-G:	540
B:	ND
T:	ND
E:	ND
X:	ND

Legend	
	Extraction and Observation Well Location
NOTE:	All Results in Ug/L
TPH-G:	Total Petroleum Hydrocarbons as Gasoline
B:	Benzene
T:	Toluene
E:	Ethybenzene
X:	Total Xylenes
ND:	Not detected at or above the methods reporting limit.



Dr. By: Dale Anderson
Date: 11/29/99
Scale: 1 inch= 60 feet
Versar Project No. 4422-002
Path/File: P:\BOFA\SanLeandro\QMS\Oct99\Fig4

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Laboratory Analytical Results
For Groundwater Samples
October 28, 1999
 2585 Nicholson Street
 San Leandro, California

Figure 4

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	0.001	Southeast
	Groundwater elevation (feet amsl)	9.94	9.93	10.00	9.85	9.82		
July 28, 1999	Depth to groundwater (feet toc)	5.85	4.19	6.37	5.84	7.11	0.001	Southeast
	Groundwater elevation (feet amsl)	9.42	9.50	9.51	9.41	9.35		
	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	0.002	Easterly
	Groundwater elevation (feet amsl)	9.82	9.63	10.09	9.65	9.78		
	Change from previous elevation	0.40	0.13	0.58	0.24	0.43		

Notes and Abbreviations:

ft/ft = feet per foot

amsl = above mean sea level

toc = top of casing

↓
MTBE?

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

with SML Standard

with SML

Monitoring Well No.	Date	Chemicals of Concern										
		TPH-G (µg/L)	TPH-D (µg/L)	TPH-MO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH-K (mg/L)	TPH-SS (µg/L)	Naphthalene	2-Methyl-naphthalene
MW-1	Jun-92	10,000	ND	NA	110	81	62	280	--	--	--	--
	Nov-92	9,800	ND	--	23	14	22	96	--	--	--	--
	Apr-93	18,000	560	ND	42	47	50	190	ND	370	--	--
	Jul-93	27,000	ND	ND	40	45	63	190	ND	ND	--	--
	Dec-93	7,800	3,800	ND	13	16	20	77	ND	ND	--	--
	Mar-94	280,000	620	ND	970	880	620	1,700	ND	3,300	--	--
	Jun-94	8,500	ND	ND	23	13	8.5	19	ND	ND	--	--
	Sep-94	2,400	52	ND	5.3	2.6	2.5	6	ND	ND	--	--
	Dec-94	4,800	1,300	ND	32	32	16	50	ND	1,000	--	--
	Apr-95	74,000	3,700	ND	320	350	350	940	ND	570	--	--
	Sep-95	33,000	46,000	ND	140	270	260	1,100	ND	4,900	--	--
	May-99	8,100	ND	ND	1,400	31	82	360	--	--	--	--
	Jul-99	3,500	1,700	--	252	23	43	179	--	--	10	6.5
Oct-99	4,900	--	--	270	34	<5	370	--	--	--	--	
MW-2	Apr-99	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
	Jul-99	<100	<100	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--
	Oct-99	<100	--	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--
MW-3	Apr-99	ND	540	ND	ND	ND	ND	ND	--	--	ND	ND
	Jul-99	300	<100	--	<1.0	<1.0	<1.0	<1.0	--	--	<5.0	<5.0
	Oct-99	230	--	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--
MW-4	Apr-99	110	ND	ND	ND	ND	ND	ND	--	--	--	--
	Jul-99	120	<100	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--
	Oct-99	<100	--	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--
MW-5	Apr-99	270	ND	ND	ND	ND	ND	ND	--	--	--	--
	Jul-99	570	<100	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--
	Oct-99	540	--	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--

Notes and Abbreviations:

TPH-G = total petroleum hydrocarbons as gasoline

TPH-K = total petroleum hydrocarbons as kerosene

TPH-SS = total petroleum hydrocarbons as standard solvent

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

mg/L = milligrams per liter, 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

Project Number: 4422-001	Site Name: Bank of America- San Leandro
Well Number: MW-1	Date(s) Purged: 10-28-99
OVA - Ambient: NR	Purge Method: Centrifugal Pump
OVA - Vault: NR	Purge Rate:
OVA - Casing: NR	Date & Time Sampled: 10-28-99 @ 1515
Water Level - Initial: 5.45 @ 1411	Purged & Sampled: Dale Anderson
Water Level - Final: 5.85 @ 1510	Sampling Method: Dedicated Disposable Bailer
Well Depth: 18.00 feet	Free Product: 0
Well Diameter: 6 inch	Sheen: MODERATE
Well Casing Volume: 19	Odor: STRONG HYDROCARB

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
1430	7	68.2	7.05	977	6.76	LOW
1433	14	68.2	7.02	982	7.23	11
1438	21	65.1	7.02	932	6.25	4
1437	24	67.0	-	958	7.84	11
1440	35	66.4	7.03	940	7.55	11
1447	42	66.8	6.98	944	6.24	11
1450	49	67.1	6.99	954	6.96	11
1458	56	66.6	6.97	933	6.56	1
1505	58	65.0	6.90	925	7.56	
1515	Sample					

Field Notes:

Project Number: 4422-001			Site Name: Bank of America- San Leandro			
Well Number: MW-2			Date(s) Purged: 10-28-99			
OVA - Ambient: NR			Purge Method: Dedicated Disposable Bailer			
OVA - Vault: NR			Purge Rate:			
OVA - Casing: NR			Date & Time Sampled: 10-28-99 @ 1300			
Water Level - Initial: 4.04 @ 1038			Purged & Sampled: Dale Anderson			
Water Level - Final: 4.1 @ 1257			Sampling Method: Dedicated Disposable Bailer			
Well Depth: 14.20 feet			Free Product: <input checked="" type="checkbox"/>			
Well Diameter: 2 inch			Sheen: <input checked="" type="checkbox"/>			
Well Casing Volume: 1.7			Odor: <input checked="" type="checkbox"/>			
Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
1239	.25	67.3	7.15	1091	1.76	Clear
1241	1.0	67.1	7.15	1041	1.01	Low
1243	1.75	66.7	7.11	1038	1.02	"
1245	2.50	66.3	8.06	1024	1.03	MOD
1248	3.25	65.6	8.11	1007	.94	"
1250	3.75	65.5	6.96	1031	.88	"
1252	4.25	65.3	6.92	1023	.72	"
1254	4.75	65.8	6.89	1030	1.06	"
1256	5.25	65.9	6.88	1033	.77	"
1300	Sample					
Field Notes:						

Project Number: 4422-001	Site Name: Bank of America- San Leandro
Well Number: MW-3	Date(s) Purged: 10-28-99
OVA - Ambient: NR	Purge Method: Dedicated Disposable Bailer
OVA - Vault: NR	Purge Rate:
OVA - Casing: NR	Date & Time Sampled: 10-28-99 @ 1400
Water Level - Initial: 5.79 @ 1043	Purged & Sampled: Dale Anderson
Water Level - Final: 5.90 @ 1350	Sampling Method: Dedicated Disposable Bailer
Well Depth: 14.90 feet	Free Product: 0
Well Diameter: 2 inch	Sheen: 0
Well Casing Volume: 1.5	Odor: 1 0

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
1323	.25	65.3	6.75	517	1.46	LOW
1324	1.0	65.6	6.80	503	1.40	4
1328	1.5	65.5	6.81	504	.95	MOD
1329	2.0	65.3	6.82	593	.89	11
1331	2.5	65.1	6.83	593	.94	11
1333	3.0	65.0	Anomalous	592	1.24	11
1335	3.5	65.1	6.80	577	2.11	11
1337	4.0	65.0	6.81	616	1.00	11
1340	4.5	65.0	6.86	584	1.12	4
1400	sample					

Field Notes:



Project Number: 4422-001				Site Name: Bank of America- San Leandro		
Well Number: MW-4				Date(s) Purged: 10-28-99		
OVA - Ambient: NR				Purge Method: Dedicated Disposable Bailer		
OVA - Vault: NR				Purge Rate:		
OVA - Casing: NR				Date & Time Sampled: 10-28-99 @ 1230		
Water Level - Initial: 5.60 @ 1033				Purged & Sampled: Dale Anderson		
Water Level - Final: 5.6 @ 1217				Sampling Method: Dedicated Disposable Bailer		
Well Depth: 14.20 feet				Free Product: <input checked="" type="checkbox"/>		
Well Diameter: 2 inch				Sheen: <input checked="" type="checkbox"/>		
Well Casing Volume: 1.4				Odor: <input checked="" type="checkbox"/>		
Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
1155	1.25	77.9	7.4	1270	1.22	Low
1157	.50	75.4	7.37	1242	.89	LOW
1159	1.0	73.3	7.62	1215	.90	11
1201	1.75	72.8	7.87	1210	.95	MOD
1203	2.5	72.1	7.74	1203	.90	11
1207	3.0	71.3	7.20	1178	.76	11
1210	3.5	71.2	7.18	1199	.84	11
1213	4.0	71.7	7.21	1197	—	11
1215	4.5	71.9	7.19	1205	1.05	11
1230	Sample					
Field Notes:						



Project Number: 4422-001	Site Name: Bank of America- San Leandro
Well Number: MW-5	Date(s) Purged: 10-28-99
OVA - Ambient: NR	Purge Method: Dedicated Disposable Bailer
OVA - Vault: NR	Purge Rate:
OVA - Casing: NR	Date & Time Sampled: 10-28-99 @ 1130
Water Level - Initial: 6.65 @ 1028	Purged & Sampled: Dale Anderson
Water Level - Final: 6.75 @ 1128	Sampling Method: Dedicated Disposable Bailer
Well Depth: 15.55 feet	Free Product: <input checked="" type="checkbox"/>
Well Diameter: 2 inch	Sheen: <input checked="" type="checkbox"/>
Well Casing Volume: 1.5	Odor: <input checked="" type="checkbox"/>

Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
1105	1.25	75	7.04	1355	1.01	CLEAR
1112	1.50	71.8	7.10	1295	.91	LOW
1114	2.0	71.4	7.13	1303	1.31	MED
1115	2.0 1.75	71.2	7.30	1300	1.10	11
1117	2.5	70.8	7.10	1296	1.50	11
1119	3.0	70.1	6.98	1276	2.14	11
1120	3.3	69.7	7.19	1261	1.10	11
1122	4.0	69.7	7.08	1260	1.19	11
1123	4.5	69.6	7.14	1263	1.53	11
					79	
1130	Sample					

Field Notes:

ATTACHMENT V

Laboratory Analytical Reports and Chain-of-Custody Documentation

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Versar, Inc.
7844 Madison Avenue
Suite 167
Fair Oaks, CA 95628
Attention: Dale Anderson

Login #: L9911017
Report Date: 11/09/99
Work ID: 4422-001/BANK OF AMERICA
Date Received: 10/29/99

PO Number:
Account Number: VERSAR-CA-503

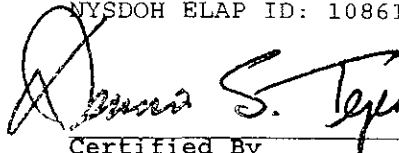
SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sample Number</u>	<u>Sample Description</u>
L9911017-01	MW5	L9911017-02	MW4
L9911017-03	MW2	L9911017-04	MW3
L9911017-05	MW1		

CA DOHS ID NO. 2277

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861



Certified By
Dennis S. Tepe

Order #99-11-017
November 9, 1999
10:32

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

GASOLINE RANGE ORGANICS - 8015:

The GRO result for sample L9911017-05 (MW1) was "J" flagged however, the result was within the instrument calibration range.

Login #L9911017
November 9, 1999 02:21 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 802-BETX1 - Volatile Organics (BETX)

Lab Sample ID: L9911017-01
Client Sample ID: MW5
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/03/99 Time: 10:53

Instrument: HP3
Analyst: MFB
Lab File ID: 3G00769

Method: 8021B
Run ID: R77385
Batch: WG67706

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
71-43-2	Benzene.....	ug/L		ND	1.0	1
100-41-4	Ethylbenzene.....	ug/L		ND	1.0	1
108-88-3	Toluene.....	ug/L		ND	1.0	1
1330-20-7	Xylenes, Total.....	ug/L		ND	1.0	1
SURROGATES- In Percent Recovery:						
	a,a,a-Trifluorotoluene.....	106		(82 - 123%)		

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9911017-01
Client Sample ID: MW5
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 14:21

Instrument: HP11
Analyst: MFB
Lab File ID: 11G01831

Method: 8015
Run ID: R77387
Batch: WG67636

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics	ug/L	540		100	1
SURROGATES- In Percent Recovery:						
	Chlorobenzene.....	95.0		(64 - 148%)		

RL = Reporting Limit

Product: 802-BETX1 - Volatile Organics (BETX)

Lab Sample ID: L9911017-02
Client Sample ID: MW4
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 21:24

Instrument: HP 3
Analyst: MFB
Lab File ID: 3G00761

Method: 8021B
Run ID: R77248
Batch: WG67662

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
71-43-2	Benzene.....	ug/L		ND	1.0	1
100-41-4	Ethylbenzene.....	ug/L		ND	1.0	1
108-88-3	Toluene.....	ug/L		ND	1.0	1
1330-20-7	Xylenes, Total.....	ug/L		ND	1.0	1
SURROGATES- In Percent Recovery:						
	a,a,a-Trifluorotoluene.....	126	*	RE (82 - 123%)		

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9911017-02
Client Sample ID: MW4
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 16:22

Instrument: HP11
Analyst: MFB
Lab File ID: 11G01834

Method: 8015
Run ID: R77387
Batch: WG67636

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/L		ND	100	1
SURROGATES- In Percent Recovery:						
	Chlorobenzene.....	90.3		(64 - 148%)		

Login #L9911017
November 9, 1999 02:21 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 802-BETX1 - Volatile Organics (BETX)

Lab Sample ID: L9911017-03
Client Sample ID: MW2
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 22:02

Instrument: HP 3
Analyst: MFB
Lab File ID: 3G00762

Method: 8021B
Run ID: R77248
Batch : WG67662

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
71-43-2	Benzene.....	ug/L		ND	1.0	1
100-41-4	Ethylbenzene.....	ug/L		ND	1.0	1
108-88-3	Toluene.....	ug/L		ND	1.0	1
1330-20-7	Xylenes, Total.....	ug/L		ND	1.0	1
SURROGATES- In Percent Recovery:						
	a,a,a-Trifluorotoluene.....	132	*	RE (82 - 123%)		

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9911017-03
Client Sample ID: MW2
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 17:02

Instrument: HP11
Analyst: MFB
Lab File ID: 11G01835

Method: 8015
Run ID: R77387
Batch : WG67636

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics... ..	ug/L		ND	100	1
SURROGATES- In Percent Recovery:						
	Chlorobenzene.....	91.0		(64 - 148%)		

Login #L9911017
November 9, 1999 02:21 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 802-BETX1 - Volatile Organics (BETX)

Lab Sample ID: L9911017-04
Client Sample ID: MW3
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 22:41

Instrument: HP 3
Analyst: MFB
Lab File ID: 3G00763

Method: 8021B
Run ID: R77248
Batch: WG67662

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
71-43-2	Benzene.....	ug/L		ND	1.0	1
100-41-4	Ethylbenzene.....	ug/L		ND	1.0	1
108-88-3	Toluene.....	ug/L		ND	1.0	1
1330-20-7	Xylenes, Total.....	ug/L		ND	1.0	1
SURROGATES- In Percent Recovery:						
	a,a,a-Trifluorotoluene.....	111		(82 - 123%)		

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9911017-04
Client Sample ID: MW3
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 17:41

Instrument: HP11
Analyst: MFB
Lab File ID: 11G01836

Method: 8015
Run ID: R77387
Batch: WG67636

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/L	230		100	1
SURROGATES- In Percent Recovery:						
	Chlorobenzene.....	90.0		(64 - 148%)		

Login #L9911017
November 9, 1999 02:21 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 802-BETX1 - Volatile Organics (BETX)

Lab Sample ID: L9911017-05
Client Sample ID: MW1
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/03/99 Time: 11:32

Instrument: HP3
Analyst: MFB
Lab File ID: 3G00770

Method: 8021B
Run ID: R77385
Batch : WG67706

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
71-43-2	Benzene.....	ug/L	270		5.0	5
100-41-4	Ethylbenzene.....	ug/L		ND	5.0	5
108-88-3	Toluene.....	ug/L	34		5.0	5
1330-20-7	Xylenes, Total.....	ug/L	370		5.0	5
SURROGATES- In Percent Recovery:						
	a,a,a-Trifluorotoluene.....	165	* ,RE	(82 - 123%)		

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9911017-05
Client Sample ID: MW1
Site/Work ID: 4422-001/BANK OF AMERICA
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/28/99

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 11/02/99 Time: 18:21

Instrument: HP11
Analyst: MFB
Lab File ID: 11G01837

Method: 8015
Run ID: R77387
Batch : WG67636

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/L	4900	J	5000	50
SURROGATES- In Percent Recovery:						
	Chlorobenzene.....	82.7		(64 - 148%)		

Order #: 99-11-017
November 9, 1999 02:21 pm

**KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS**

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG67636	R77387	L9911017-01		Water	Gasoline Range Organics	8015	28-OCT-1999	Volatile GC
WG67636	R77387	L9911017-02		Water	Gasoline Range Organics	8015	28-OCT-1999	Volatile GC
WG67636	R77387	L9911017-03		Water	Gasoline Range Organics	8015	28-OCT-1999	Volatile GC
WG67636	R77387	L9911017-04		Water	Gasoline Range Organics	8015	28-OCT-1999	Volatile GC
WG67636	R77387	L9911017-05		Water	Gasoline Range Organics	8015	28-OCT-1999	Volatile GC
WG67662	R77248	L9911017-02		Water	Volatile Organics (BETX)	8021B	28-OCT-1999	Volatile GC
WG67662	R77248	L9911017-03		Water	Volatile Organics (BETX)	8021B	28-OCT-1999	Volatile GC
WG67662	R77248	L9911017-04		Water	Volatile Organics (BETX)	8021B	28-OCT-1999	Volatile GC
WG67706	R77385	L9911017-01		Water	Volatile Organics (BETX)	8021B	28-OCT-1999	Volatile GC
WG67706	R77385	L9911017-05		Water	Volatile Organics (BETX)	8021B	28-OCT-1999	Volatile GC

KEMRON ANALYST LIST

Ohio Valley Laboratory

10/22/99

ALT - - Ann I. Thayer
CBN - - C. Brian Noll
CEB - - Chad E. Barnes
CG - - Cheryl Graham
CK - - Carl King
CMS - - Crystal M. Stevens
CRC - - Carla R. Cochran
DIH - - Deanna I. Hesson
DIN - - Deanna L. Norton
DLP - - Dorothy L. Payne
DMD - - David M. Dye
ECL - - Eric C. Lawson
FEH - - Fay E. Harmon
GWH - - George W. Hutchinson
HV - - Hema Vilasagar
JCR - - Jennifer C. Randall
JDN - - Jamie D. Newell
JG - - Jonathan Graziani
JLH - - Janice L. Holland
JWR - - John W. Richards
JYH - - Ji Y. Hu
KAS - - Kevin A. Stutler

KHR - - Kim H. Rhodes
LKM - - Laura K. Morris
MDA - - Mike D. Albertson
MDC - - Michael D. Cochran
MES - - Mary E. Schiling
MLS - - Michael L. Schimmel
MMB - - Maren M. Beery
RDC - - Rebecca D. Cutlip
REF - - Ron E. Fertile
REK - - Robert E. Kyer
RSS - - Regina S. Simmons
RWC - - Rodney W. Campbell
SJK - - Sindy J. Kinney
SJM - - Shawn J. Marshall
SLP - - Sheri L. Pfalzgraf
SMW - - Shauna M. Welch
SPL - - Steve P. Learn
SPS - - Steve P. Swatzel
TMM - - Tammy M. Morris
TRS - - Todd R. Stack
VC - - Vicki Collier
VMN - - Vincent M. Nedeff

KEMRON Environmental Services, Inc.
 LIST OF VALID QUALIFIERS (qual)
 December 10, 1998

Qualifier	Description	Qualifier	Description
A	See the report narrative	N	Tentatively Identified Compound (TIC)
NA	Not applicable	ND	Not detected at or above the reporting limit (RL)
†	Correlation coefficient for the MSA is less than 0.995	NF	Not found
<	Less than	NFL	No free liquid
>	Greater than	NI	Non-ignitable
B	Present in the method blank	NR	Analyte is not required to be analyzed
C	Confirmed by GC/MS	NS	Not spiked
*	Surrogate or spike compound out of range	P	Concentration > 25% difference between the two GC columns
CG	Confluent growth	QNS	Quantity not sufficient to perform analysis
D	The analyte was quantified at a secondary dilution factor	R	Analyte exceeds regulatory limit
DL	Surrogate or spike was diluted out	RA	Reanalysis confirms reported results
E	Estimated concentration due to sample matrix interference	RE	Reanalysis confirms sample matrix interference
F	Present below nominal reporting limit (AFCEE only)	S	Analyzed by method of standard addition
FL	Free liquid	SMI	Sample matrix interference on surrogate
I	Semiquantitative result, out of instrument calibration range	SP	Reported results are for spike compounds only
J	Present below nominal reporting limit	TNTC	Too numerous to count
L	Sample reporting limits elevated due to matrix interference	U	Analyzed for but not detected
M	Duplicate injection precision not met	W	Post-digestion spike for furnace AA out of control limits
		Z	Can not be resolved from isomer. See below.

Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semiquantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

ORGANIC QA/QC

Kemron Environmental Services

Volatile Quality Control Summary
Method 8021B

Run Date:	2-Nov-99	Blk Flm	3G00743
Instrument:	HP3	LCS Flm	3G00745
Analyst:	MFB	Shift	AM
Work Group:	WG67662		
Matrix	Water		

Sample #	10-581-02
Flm	3G00748
MS Flm	3G00752
MSD Flm	3G00753
DF	1

Daily QA Information	Method Detection Limit	LCS				Sample Result	MS		MSD		Advisory Limits	Percent		Outliers			
		Method Blank	LCS 20 ug/L	Percent Recovery	Control Limits		MS 20 ug/L	MSD 20 ug/L	Percent Recover	Percent Recover		Percent RPD	Advisory Limit	LCS	MS	MSD	%RPD
		ug/L	ug/L	% Rec	% Rec		ug/L	ug/L	ug/L	% Rec		% Rec	% Rec	% RPD	% RPD		
methyl-tert-butyl ether	0.541	NA	NA	NA	56 - 149	NA	NA	NA	NA	NA	56 - 149	NA	16				
benzene	0.154	ND	19.6	98.0	78 - 122	ND	19.7	20.2	98.6	101.1	78 - 122	2.5	15				
toluene	0.159	ND	18.3	91.4	78 - 123	ND	18.2	18.6	91.0	93.1	78 - 123	2.2	15				
chlorobenzene	0.141	NA	NA	NA	70 - 128	NA	NA	NA	NA	NA	70 - 128	NA	24				
ethylbenzene	0.155	ND	17.7	88.5	80 - 129	ND	18.3	18.7	91.7	93.5	80 - 129	2.0	16				
m+p-xylene	0.414	ND	38.0	95.0	80 - 124	ND	39.2	39.9	97.9	99.8	80 - 124	1.9	16				
o-xylene	0.304	ND	20.6	103.1	80 - 124	ND	20.1	22.0	100.3	109.9	80 - 124	9.2	16				
xylene (total)	0.557	ND	58.6	97.7	80 - 124	ND	59.2	61.9	98.7	103.2	80 - 124	4.4	16				
1,3-dichlorobenzene	0.128	NA	NA	NA	81 - 110	NA	NA	NA	NA	NA	81 - 110	NA	15				
1,4-dichlorobenzene	0.136	NA	NA	NA	78 - 107	NA	NA	NA	NA	NA	78 - 107	NA	16				
1,2-dichlorobenzene	0.333	NA	NA	NA	84 - 112	NA	NA	NA	NA	NA	84 - 112	NA	15				

Surrogate Recovery	Blank	% Rec	LCS	% Rec	SMPL	% Rec	MS	% Rec	MSD	% Rec	Recovery Limits	BLK	LCS	SMPL	MS	MSD
a,a,a-Trifluorotoluene	26.2	87.4	31.5	105.1	24.3	80.9	28.7	95.8	29.9	99.7	70 - 130					
p-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70 - 130					

Notes and Definitions

MDL = Method Detection Limit

UPL = Upper Control Limit

DL = Diluted Out

BLK = Method Blank

RPD = Relative Percent Difference

SS = Surrogate Standard

LCS = Laboratory Control Sample

ND = Not Detected

L = Low

SMPL = Sample Results

NA = Not Applicable

H = High

MS/MSD = Matrix Spike / Matrix Spike Duplicate

Kemron Environmental Services

Volatile Quality Control Summary

Method 8021B

Run Date:	3-Nov-99	Blk Flm	3G00767
Instrument:	HP3	LCS Flm	3G00768
Analyst:	MFB	Shift	AM
Work Group:	WG67706		
Matrix	Water		

Sample #	11-017-03
Flm	3G00773
MS Flm	3G00774
MSD Flm	3G00775
DF	1

Daily QA Information	Method Detection Limit	LCS				MS MSD						Percent		Outliers			
		Method	LCS	Percent	Control	Sample	MS	MSD	Percent	Percent	Advisory	Percent	Advisory	LCS	MS	MSD	%RPD
		Blank	20 ug/L	Recovery	Limits	Result	20 ug/L	20 ug/L	Recover	Recover	Limits	RPD	Limit				
Analyte List	ug/L	ug/L	ug/L	% Rec	% Rec	ug/L	ug/L	ug/L	% Rec	% Rec	% Rec	% RPD	% RPD				
methyl-tert-butyl ether	0.541	NA	NA	NA	56 - 149	NA	NA	NA	NA	NA	56 - 149	NA	16				
benzene	0.154	ND	20.2	101.1	78 - 122	ND	21.0	21.4	105.0	106.8	78 - 122	1.7	15				
toluene	0.159	ND	19.2	96.0	78 - 123	ND	19.7	20.2	98.7	101.0	78 - 123	2.3	15				
chlorobenzene	0.141	NA	NA	NA	70 - 128	NA	NA	NA	NA	NA	70 - 128	NA	24				
ethylbenzene	0.155	ND	18.7	93.5	80 - 129	ND	19.2	19.5	96.0	97.6	80 - 129	1.6	16				
m+p-xylene	0.414	ND	40.0	100.1	80 - 124	ND	40.4	41.0	101.0	102.5	80 - 124	1.5	16				
o-xylene	0.304	ND	21.9	109.6	80 - 124	ND	20.8	21.1	104.2	105.7	80 - 124	1.4	16				
xylene (total)	0.557	ND	62.0	103.3	80 - 124	ND	61.2	62.1	102.1	103.6	80 - 124	1.5	16				
1,3-dichlorobenzene	0.128	NA	NA	NA	81 - 110	NA	NA	NA	NA	NA	81 - 110	NA	15				
1,4-dichlorobenzene	0.136	NA	NA	NA	78 - 107	NA	NA	NA	NA	NA	78 - 107	NA	16				
1,2-dichlorobenzene	0.333	NA	NA	NA	84 - 112	NA	NA	NA	NA	NA	84 - 112	NA	15				

Surrogate Recovery	Blank	% Rec	LCS	% Rec	SMPL	% Rec	MS	% Rec	MSD	% Rec	Recovery Limits	BLK	LCS	SMPL	MS	MSD
a,a,a-Trifluorotoluene	26.0	86.7	30.8	102.7	47.0	156.7	46.4	154.6	46.0	153.3	70 - 130			H	H	H
p-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70 - 130					

Notes and Definitions

MDL = Method Detection Limit

BLK = Method Blank

LCS = Laboratory Control Sample

SMPL = Sample Results

MS/MSD = Matrix Spike / Matrix Spike Duplicate

UPL = Upper Control Limit

RPD = Relative Percent Difference

ND = Not Detected

NA = Not Applicable

DL = Diluted Out

SS = Surrogate Standard

L = Low

H = High

Kemron Environmental Services
 Volatile Quality Control Summary
 Method 8015B

Workgroup	WG67636
RunDate	2-Nov-99
Matrx.	WATER
Instrument	HP11
Analyst	MFB

BLK FLNM.	11G01829
LCS FLNM.	11G01830
SMPL Num.	11-017-01
SMPL FLNM.	11G01831
MS FLNM.	11G01832
MSD FLNM.	11G01833

LCS DF.	1
SMPL DF.	1
MS DF.	1
MSD DF.	1

Daily QA Information	Concentration, PPB								Percent Recovery					% RPD		Outliers				
	MDL	BLK	LCS	LCS Spike Level	SMPL	MS	MSD	MS Spike Level	LCS	LCS Limit	MS	MSD	MS Limit	MS RPD	RPD UCL	LCS	MS	MSD	%RPD	
Target Analytes	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%	%					
GRO	13.35	ND	933.4	900.0	543.7	1409.9	1439.0	900.0	103.7	84 - 115	96.2	99.5	84 - 115	2.0	15.0					
Surrogate Standard		BLK	LCS		SMPL	MS	MSD	SS Spike Level	BLK	LCS		SMPL	MS	MSD	Surrogate Limit	BLK	LCS	SMPL	MS	MSD
chlorobenzene		26.4	31.0		28.5	31.9	31.2	30.0	88.0	103.3		95.0	106.5	104.1	74 - 138					

Notes and Definitions

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CHAIN OF CUSTODY RECORD

PROJECT NO.		PROJECT NAME				PARAMETERS							INDUSTRIAL HYGIENE SAMPLE	Y	
4422-001		BANK OF AMERICA SAN LEANRO				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NO. OF CONTAINERS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">GRO-GASOLINE</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BITX</div> </div>								<input checked="" type="checkbox"/>	
SAMPLERS: (Signature) <i>Dale Anderson</i>					(Printed) DALE ANDERSON								REMARKS		
FIELD SAMPLE NUMBER	DATE 1999	TIME	COMP.	GRAB	STATION LOCATION										
MW 5	10/28	130		X		3	X	X							
MW 4		1230													
MW 2		1300													
MW 3		1400													
MW 1	↓	1515		↓		↓	↓	↓							
Relinquished by: (Signature) <i>Dale Anderson</i>					Date / Time 10/29/99 1700		Received by: (Signature)			Relinquished by: (Signature)		Date / Time		Received by: (Signature) <i>(b9)</i>	
(Printed) DALE ANDERSON					TO FED EX		(Printed)			(Printed)				(Printed)	
Relinquished by: (Signature)					Date / Time		Received for Laboratory by: (Signature) <i>Brenda Gregory</i>			Date / Time 10/29/99 1020		Remarks STA TAY USE LOW DETECTION LIMITS BITX .5 PPB GRO 5 PPB			
(Printed)							(Printed) Brenda Gregory								

*C. gc sealed
Sp intact
Cooler Temp 3.0*

