R02567

Report of February 2005 Groundwater Sampling

at

2942 San Pablo Avenue
Oakland, CA

Performed For:
Mr. James Chung
San Pablo Auto Body
2942 San Pablo Avenue
Oakland, Ca

Prepared By:
PIERS Environmental Services, Inc.
1330 S. Bascom Avenue, Suite F
San Jose, CA 95128

March 2005
Project No. 04256

PIERS
Environmental Services, Inc.

1330 S. Bascom Ave., Suite F
San Jose, CA 95128

Tel (408) 559-1248 Fax (408) 559-1224

March 1, 2005

Mr. Robert W. Schultz, R. G.
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: Report of February 2005 Groundwater Sampling
2942 San Pablo Avenue, Oakland, CA

Dear Mr. Schultz:

On February 11, 2005, groundwater samples were obtained from monitoring wells MW-1 through MW-3 at the above-referenced site by North State Environmental of South San Francisco, CA. The wells were also monitored. A Vicinity Map showing the location of the site is included as Figure 1.

The groundwater samples were collected as follows: prior to sampling, the wells were checked for depth to water, and the presence of free product and sheen. No free product or sheen was noted in any of the wells. Monitoring data collected this quarter is summarized on Table 1 and Figure 2.

Each well was bailed until the volume of water withdrawn was equal to at least three casing volumes. To assure that a representative groundwater sample was collected, periodic measurements of the temperature, pH and specific conductance were made. The sample was collected only when the temperature, pH, and/or specific conductance reached relatively constant values.

Water samples were collected using new, disposable bailers. An effort was made to minimize exposure of the samples to air. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. Sample containers were obtained directly from the analytical laboratory. Sampling equipment was cleaned after its use at each sampling location. Thermometers, pH electrodes, and conductivity probes were also cleaned after sampling.

Subsequent to collection, the samples were immediately stored on ice in an appropriate ice chest. Samples were transported under Chain-of-Custody procedures to North State Environmental Laboratory in South San Francisco, CA. Excess water resulting from the sampling and cleaning procedures was collected and contained in pre-labeled 55-gallon drums on-site pending receipt of laboratory analyses.

Laboratory Analyses

All samples analyzed were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for volatile organic compounds by EPA Method 8260, and for TPH as gasoline by EPA method 8015- Modified, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020. The analytical results of the groundwater samples collected on February 11, 2005 are tabulated in Tables 2A and 2B. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

Hydrology

On February 11, 2005, the measured depth to groundwater in the three monitoring wells and piezometer B-11 varied between 10.56 and 11.94 feet below the tops of the well casings. The elevation of groundwater in the wells increased between 1.73 and 2.3 feet since the last monitoring event on November 15, 2004. The monitoring data is summarized in Table 1 and on Figure 2. On this event, the direction of groundwater flow at the Property and vicinity was to the west, consistent with the previous events, at a hydraulic gradient of 0.03 feet per foot.

Discussion

The primary Contaminant of Concern at the Property in groundwater is TCE. The concentration of TCE in MW-1, at the source area, is increased from the last event, presumably due to the 2.3-foot rise in water level contacting residual contamination. The concentration of TCE in down-gradient well MW-2 is slightly less than the last event (12.5 vs. 15 parts per million). The concentration of TCE in well MW-3 was somewhat elevated from the last event (20.6 vs. 11.6 parts per billion). The laboratory continued to report that the concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline detected in the monitoring wells was partly due to a single peak of TCE.

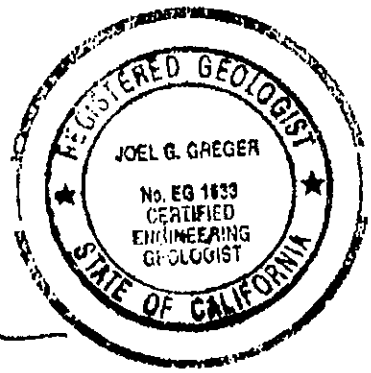
The next quarterly monitoring event will take place in May 2005.

Limitations

The observations and conclusions presented in this report are professional opinions based on the scope of work outlined herein. This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. The opinions presented apply to site conditions existing at the time of our study and cannot apply to site conditions or changes of which we are not aware or have not had the opportunity to evaluate. This investigation was conducted solely to evaluate environmental conditions beneath the property at specific locations. Subsurface conditions may vary away from the data points available. Additional work, including subsurface investigation, can reduce the inherent uncertainties associated with this type of investigation. It must be recognized that any conclusions drawn from these data rely on the integrity of the information available at the time of investigation and that a full and complete determination of environmental contamination and risks cannot be made.

If you have any questions regarding this report, please do not hesitate to contact our office.

Sincerely,
PIERS Environmental Services, Inc.



Joel G. Greger
Senior Project Manager
CEG # EG1633, REA # 07079

Kay Pannell
Chief Operations Officer
REP #5800, REA-II #20236

Attachments
Tables 1, 2A and 2B
Figures 1-3
Laboratory Analytical Data
Well Purging/Sampling Data

ATTACHMENTS

TABLE 1
GROUNDWATER MONITORING DATA
2942 San Pablo Avenue, Oakland

Well No.	Date	Groundwater Elevation	Top of casing Elevation	Depth to Water	Well Depth	Product Thickness	Sheen	Water purged (gallons)
MW1	727/2004	13.17	26.32	13.15				0
	7/30/2004	13.12		13.20	36.55	0	No	5
	11/15/2004	13.46		12.86	36.60	0	No	1.5
	2/11/2005	15.76		10.56	36.60	0	No	1.6
MW2	727/2004	9.93	24.60	14.67				0
	7/30/2004	10.30		14.30	33.10	0	No	4
	11/15/2004	10.85		13.75	33.11	0	No	1.2
	2/11/2005	12.66		11.94	33.11	0	No	1.3
MW3	727/2004	11.36	25.69	14.33				0
	7/30/2004	11.50		14.40	36.00	0	No	5
	11/15/2004	12.06		13.63	36.05	0	No	1.5
	2/11/2005	13.79		11.9	36.05	0	No	1.4

TABLE 2A
GROUNDWATER ANALYTICAL RESULTS - MONITORING WELLS
2942 San Pablo Avenue, Oakland

Sample/ Depth (feet)	Date Sampled	TCE (ppb)	cis-1,2-DCE	Acetone (ppb)	Chloroform (ppb)
MW1	7/30/2004	**5,670**	2	<10	2.1
MW1*	11/15/2004	**5,610**	6	<10	2.1
MW1**	2/11/2005	**7,130**	5	<10	2.6
MW2	7/30/2004	219	<1	51	3
MW2	11/15/2004	15	<1	<10	<0.5
MW2	2/11/2005	12.5	<1	<10	<0.5
MW3	7/30/2004	6.6	<1	<10	<0.5
MW3	11/15/2004	11.6	<1	<10	<0.5
MW3	2/11/2005	20.6	<1	<10	<0.5
ESL		5.0/360	6.0/590	700/1500	5.0/350

EXPLANATION:
ppb = parts per billion
DCE = Dichloroethene
TCE = Trichloroethene

ESL = Environmental Screening Level, groundwater is/is not a resource (Tables A + C/ B + D).

* Vinyl Chloride and trans-1,2-DCE were also detected at concentrations of 1.7 and 1 ppb, respectively.

** Vinyl Chloride was detected at a concentration of 0.7 ppb.

ANALYTICAL METHODS:
EPA Method 8260.

TABLE 2B
GROUNDWATER ANALYTICAL RESULTS - HYDROCARBONS -MONITORING WELLS
2942 San Pablo Avenue, Oakland

Sample/ Depth (feet)	Date Sampled	TPH-g (ppb)	Benzene (ppb)	Ethylbenzene (ppb)	Toluene (ppb)	Xylenes (ppb)	MTBE (ppb)
MW1	7/30/2004	**2,280**	<0.5	<0.5	<0.5	<1	<0.5
	11/15/2004	**2,200**	3.7/2.9	<0.5	<0.5	<1	<0.5
	2/11/2005	**5,270**	0.7/0.8	<0.5	<0.5	1.4	<0.5
MW2	7/30/2004	144	<0.5	<0.5	<0.5	<1	<0.5
	11/15/2004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2/11/2005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3	7/30/2004	63	<0.5	<0.5	<0.5	<1	<0.5*
	11/15/2004	<50	<0.5	<0.5	<0.5	<1	<0.5
	2/11/2005	<50	<0.5	<0.5	<0.5	<1	<0.5
ESL		100/500	1.0/46	30/290	40/130	13/13	5.0/1,800

EXPLANATION:

* Di - isopropyl ether (DIPE) was detected at a concentration of 1.6 ppb.

ppb = parts per billion
Analytical results are by EPA Methods 8015 and/or 8260.
TPHg =Total Petroleum Hydrocarbons as gasoline.
ESL = Environmental Screening Level, groundwater is/is not a resource (Tables A + C/ B + D).

IDENTIFIED HAZARDOUS MATERIALS SITES
RADIUS REPORT
Site Vicinity Map

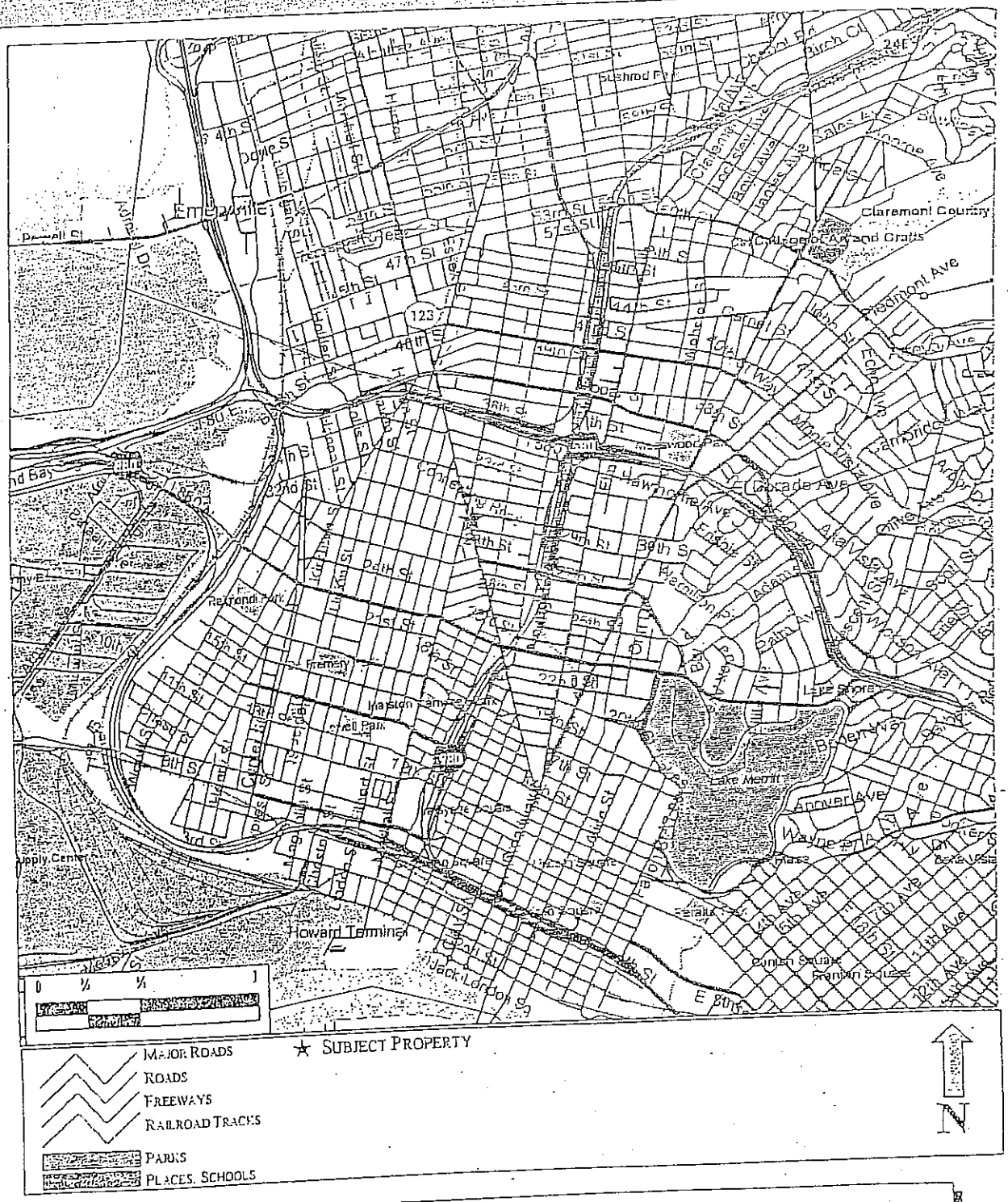


FIGURE 1
PROPERTY VICINITY MAP

2926-2942 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

NOT TO SCALE
SEPTEMBER 2003

PIERS ENVIRONMENTAL SERVICES, INC. 1330 S. BASCOM AVE., SUITE F, SAN JOSE, CA 95128
PHONE: 408-559-1248 FAX: 408-559-1224 WWW.PIERSES.COM

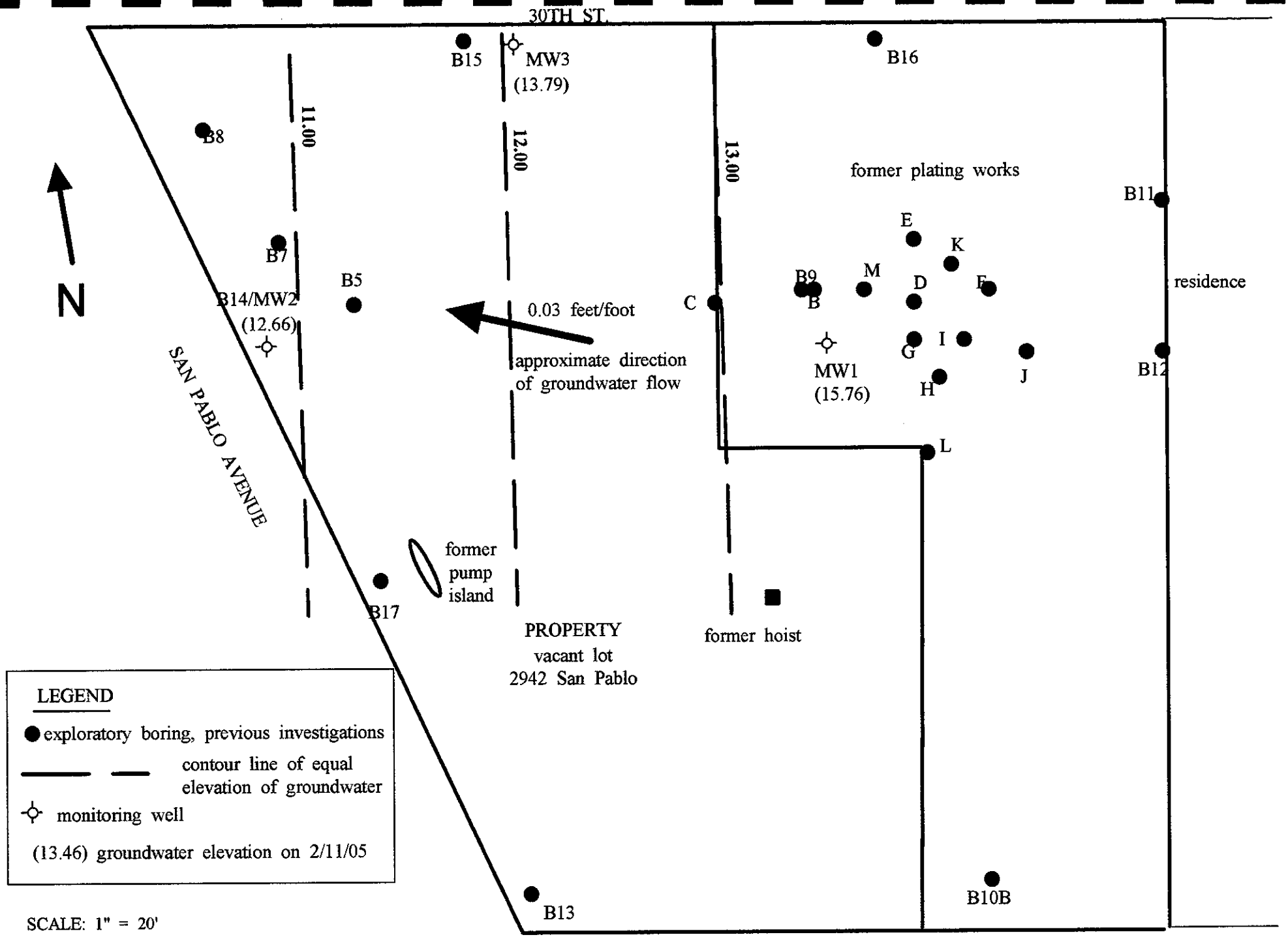


Figure 2 - Potentiometric Surface on Feb. 11, 2005

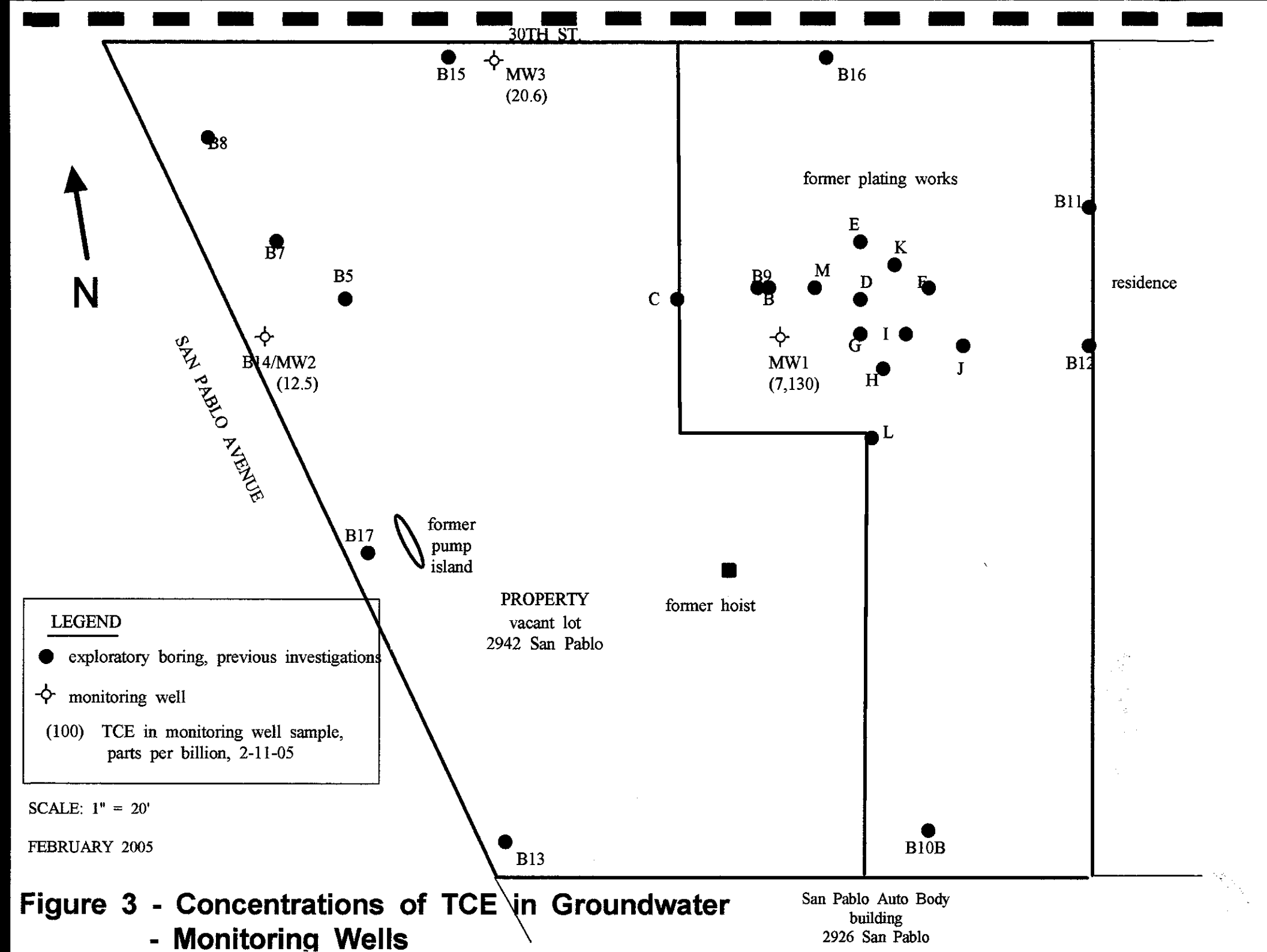


Figure 3 - Concentrations of TCE in Groundwater - Monitoring Wells

05-0209

North State Labs

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.: _____ Page 1 of 1

Client: PIERS ENVIROMENTAL SERVICES	Report to: KAY/JOEL	Phone: (408) 559-1248 (510) 787-6867	Turnaround Time: STD TAT
Mailing Address: PIERS ENVIROMENTAL SERVICES 1330 S. BASCOM AVE #F SAN JOSE, CA 95128	Billing to: → SAME	Fax: (408) 559-1224 (510) 787-1457	
		email:	Date: 2-11-05
		PO#	Sampler: SC

Project / Site Address / Global ID: SAN PABLO AUTO BODY 2942 SAN PABLO AVE. OAKLAND, CA

Analysis Requested

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPH-G/BTEX MTBE (Oxy's)	EPA 8260 VOC's + Fuel Oxygenates						Field Point ID
1	MW-1	GW	5/VOA	HCL	2-11-05 / 1420	X	X						
2	MW-2	↓	↓	↓	/ 1415	X	X						
3	MW-3	↓	↓	↓	/ 1450	X	X						

EDF ☐
PDF ☐

Relinquished by: Scott Cassady	Date: 2-11-05	Time: 1700	Received by:	Lab Comments/ Hazards
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

TERMS: NET 30 OAC

North State Labs
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

Case Narrative

Client: PIERS Environmental
Project: SAN PABLO AUTO BODY/2942 SAN PABLO AVE
Lab No: 05-0209
Date Received: 02/11/2005 Date reported: 02/22/2005

Three water samples were received under chain of custody control for the analysis of gasoline range organics by method 8015B, BTEX/MTBE by method 8021B and VOCs and fuel oxygenates by GC/MS method 8260B. The MS/MSD did not meet QC requirements for BTEX/MTBE by method 8021B and gasoline by method 8015B due to matrix effects (spiked sample 05-0209-02). The LCS/LCSD results met QC criteria and were reported instead for 8015B / 8021B. QA/QC results met acceptance criteria for all other analyses and no errors occurred.

John A. Murphy
Laboratory Director

North State Labs
CA ELAP# 1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CERTIFICATE OF ANALYSIS

Lab Number: 05-0209
Client: PIERS Environmental
Project: SAN PABLO AUTO BODY/2942 SAN PABLO AVE

Date Reported: 02/22/2005

Gasoline,BTEX and MTBE by Methods 8015B/8021B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 05-0209-01 Client ID: MW-1				02/11/2005	W
Benzene	SW8020F	0.7	UG/L		02/15/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/15/2005
Gasoline Range Organics	SW8020F	**5270	UG/L		02/15/2005
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		02/15/2005
Toluene	SW8020F	ND<0.5	UG/L		02/15/2005
Xylenes	SW8020F	1.4	UG/L		02/15/2005
Sample: 05-0209-02 Client ID: MW-2				02/11/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/15/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/15/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/15/2005
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		02/15/2005
Toluene	SW8020F	ND<0.5	UG/L		02/15/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/15/2005
Sample: 05-0209-03 Client ID: MW-3				02/11/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/15/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/15/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/15/2005
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		02/15/2005
Toluene	SW8020F	ND<0.5	UG/L		02/15/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/15/2005

*Conf by GC/MS **Due to single peak in gasoline range

North State Labs
CA ELAP#1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 05-0209
Client: PIERS Environmental
Project: SAN PABLO AUTO BODY/2942 SAN PABLO AVE

Date Reported: 02/22/2005
Gasoline,BTEX and MTBE by Methods 8015B/8021B

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Gasoline Range Organics	SW8020F	50	UG/L	ND	104/106	2
Benzene	SW8020F	0.5	UG/L	ND	74/72	3
Toluene	SW8020F	0.5	UG/L	ND	108/108	0
Ethylbenzene	SW8020F	0.5	UG/L	ND	112/112	0
Xylenes	SW8020F	1.0	UG/L	ND	110/110	0
Methyl-tert-butyl ether	SW8020F	0.5	UG/L	ND	91/94	3

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy, Laboratory Director

North State Labs
CA ELAP # 1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CERTIFICATE OF ANALYSIS

Job Number: 05-0209
Client : PIERS Environmental
Project : SAN PABLO AUTO BODY/2942 SAN PABLO AVE

Date Sampled : 02/11/2005
Date Analyzed: 02/17/2005
Date Reported: 02/22/2005

Fuel Oxygenates by Method 8260B

Laboratory Number	05-0209-01	05-0209-02	05-0209-03
Client ID	MW-1	MW-2	MW-3
Matrix	W	W	W
Analyte	UG/L	UG/L	UG/L
Methyl-tert-butyl ether	ND<0.5	ND<0.5	ND<0.5
Ethyl tert-butyl ether	ND<1	ND<1	ND<1
tert-Amyl methyl ether	ND<1	ND<1	ND<1
Di-isopropyl ether (DIPE)	ND<0.5	ND<0.5	ND<0.5
tert-Butyl alcohol	ND<10	ND<10	ND<10
1,2-Dichloroethane	ND<1	ND<1	ND<1
1,2-Dibromoethane	ND<0.5	ND<0.5	ND<0.5
Ethanol	ND<50	ND<50	ND<50
SUR-Dibromofluoromethane	93	93	99
SUR-Toluene-d8	97	101	99
SUR-4-Bromofluorobenzene	93	96	95
SUR-1,2-Dichloroethane-d4	92	101	100

Comments:

North State Labs
CA ELAP # 1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 05-0209
Client : PIERS Environmental
Project : SAN PABLO AUTO BODY/2942 SAN PABLO

Date Sampled : 02/11/2005
Date Analyzed: 02/17/2005
Date Reported: 02/22/2005

Fuel Oxygenates by Method 8260B
Quality Control/Quality Assurance Summary

Laboratory Number	05-0209	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Ethanol	ND<50				
Methyl-tert-butyl ether	ND<0.5				
Di-isopropyl ether (DIPE)	ND<0.5				
tert-butyl Alcohol	ND<10				
Ethyl tert-butyl ether	ND<1				
tert-Amyl methyl ether	ND<1				
1,1-Dichloroethene	ND<0.5	96/106	10	70-130	30
Benzene	ND<0.5	111/102	8	70-130	30
Trichloroethene	ND<0.5	79/71	11	70-130	30
Toluene	ND<0.5	109/98	11	70-130	30
Chlorobenzene	ND<1	90/90	0	70-130	30
SUR-Dibromofluoromethane	85	93/92	1	85-115	30
SUR-Toluene-d8	92	110/103	7	85-115	30
SUR-4-Bromofluorobenzene	91	96/96	0	85-115	30
SUR-1,2-Dichloroethane-d4	87	97/98	1	85-115	30

Reviewed and Approved

John A. Murphy
Laboratory Director

North State Labs
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815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 05-0209
Client : PIERS Environmental
Project : SAN PABLO AUTO BODY/2942 SAN PABLO AVE

Date Sampled : 02/11/2005
Date Analyzed: 02/17/2005
Date Reported: 02/22/2005

Volatile Organics by GC/MS Method 8260B

Laboratory Number	05-0209-01	05-0209-02	05-0209-03
Client ID	MW-1	MW-2	MW-3
Matrix	W	W	W
Analyte	UG/L	UG/L	UG/L
Bromochloromethane	ND<1	ND<1	ND<1
Dichlorodifluoromethane	ND<1	ND<1	ND<1
Chloromethane	ND<1	ND<1	ND<1
Vinyl chloride	0.7	ND<0.5	ND<0.5
Bromomethane	ND<1	ND<1	ND<1
Chloroethane	ND<1	ND<1	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<1
1,1-Dichloroethene	ND<0.5	ND<0.5	ND<0.5
Acetone	ND<10	ND<10	ND<10
Methylene chloride	ND<25	ND<25	ND<25
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1
Methyl-tert-butyl ether	ND<0.5	ND<0.5	ND<0.5
1,1-Dichloroethane	ND<0.5	ND<0.5	ND<0.5
2,2-Dichloropropane	ND<1	ND<1	ND<1
cis-1,2-Dichloroethene	5	ND<1	ND<1
2-Butanone	ND<5	ND<5	ND<5
Chloroform	2.6	ND<0.5	ND<0.5
Carbon tetrachloride	ND<0.5	ND<0.5	ND<0.5
1,1-Dichloropropene	ND<1	ND<1	ND<1
Benzene	0.8	ND<0.5	ND<0.5
1,2-Dichloroethane	ND<1	ND<1	ND<1
Trichloroethene	7130	12.5	20.6
1,2-Dichloropropane	ND<1	ND<1	ND<1
Dibromomethane	ND<1	ND<1	ND<1
Bromodichloromethane	ND<1	ND<1	ND<1
trans-1,3-Dichloropropene	ND<1	ND<1	ND<1
4-Methyl-2-pentanone	ND<1	ND<1	ND<1
Toluene	ND<0.5	ND<0.5	ND<0.5
cis-1,3-Dichloropropene	ND<1	ND<1	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<1
Tetrachloroethene	ND<0.5	ND<0.5	ND<0.5
1,3-Dichloropropane	ND<1	ND<1	ND<1
2-Hexanone	ND<1	ND<1	ND<1
Dibromochloromethane	ND<1	ND<1	ND<1
1,2-Dibromoethane	ND<0.5	ND<0.5	ND<0.5

Comments:

North State Labs
CA ELAP # 1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 05-0209
Client : PIERS Environmental
Project : SAN PABLO AUTO BODY/2942 SAN PABLO AVE

Date Sampled : 02/11/2005
Date Analyzed: 02/17/2005
Date Reported: 02/22/2005

Volatile Organics by GC/MS Method 8260B

Laboratory Number	05-0209-01	05-0209-02	05-0209-03
Client ID	MW-1	MW-2	MW-3
Matrix	W	W	W
Analyte	UG/L	UG/L	UG/L
Chlorobenzene	ND<1	ND<1	ND<1
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1
Ethylbenzene	ND<0.5	ND<0.5	ND<0.5
Xylene, Isomers m & p	ND<1	ND<1	ND<1
o-Xylene	ND<0.5	ND<0.5	ND<0.5
Styrene	ND<1	ND<1	ND<1
Bromoform	ND<1	ND<1	ND<1
Isopropylbenzene	ND<1	ND<1	ND<1
Bromobenzene	ND<1	ND<1	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1
n-Propylbenzene	ND<1	ND<1	ND<1
2-Chlorotoluene	ND<1	ND<1	ND<1
4-Chlorotoluene	ND<1	ND<1	ND<1
1,3,5-Trimethylbenzene	ND<1	ND<1	ND<1
tert-Butylbenzene	ND<1	ND<1	ND<1
1,2,4-Trimethylbenzene	ND<1	ND<1	ND<1
1,3-Dichlorobenzene	ND<1	ND<1	ND<1
1,4-Dichlorobenzene	ND<1	ND<1	ND<1
sec-Butylbenzene	ND<1	ND<1	ND<1
1,2-Dichlorobenzene	ND<1	ND<1	ND<1
n-Butylbenzene	ND<1	ND<1	ND<1
Naphthalene	ND<1	ND<1	ND<1
1,2,4-Trichlorobenzene	ND<1	ND<1	ND<1
Hexachlorobutadiene	ND<1	ND<1	ND<1
1,2,3-Trichlorobenzene	ND<1	ND<1	ND<1
1,2,3-Trichloropropane	ND<1	ND<1	ND<1
Acetonitrile	ND<5	ND<5	ND<5
Acrylonitrile	ND<1	ND<1	ND<1
Isobutanol	ND<5	ND<5	ND<5
1,1,1-Trichloroethane	ND<1	ND<1	ND<1
SUR-Dibromofluoromethane	93	93	99
SUR-Toluene-d8	97	101	99
SUR-4-Bromofluorobenzene	93	96	95
SUR-1,2-Dichloroethane-d4	92	101	100

Comments:

North State Labs
CA ELAP#1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CERTIFICATE OF ANALYSIS

Job Number: 05-0209
Client : PIERS Environmental
Project : SAN PABLO AUTO BODY/2942 SAN PABLO

Date Sampled : 02/11/2005
Date Analyzed: 02/17/2005
Date Reported: 02/22/2005

Volatile Organics by GC/MS Method 8260B
Quality Control/Quality Assurance Summary

Laboratory Number	05-0209	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Bromochloromethane	ND<1				
Dichlorodifluoromethane	ND<1				
Chloromethane	ND<1				
Vinyl chloride	ND<0.5				
Bromomethane	ND<1				
Chloroethane	ND<1				
Trichlorofluoromethane	ND<1				
1,1-Dichloroethene	ND<0.5	96/106	10	70-130	30
Acetone	ND<10				
Methylene chloride	ND<25				
trans-1,2-Dichloroethene	ND<1				
Methyl-tert-butyl ether	ND<0.5				
1,1-Dichloroethane	ND<0.5				
2,2-Dichloropropane	ND<1				
cis-1,2-Dichloroethene	ND<1				
2-Butanone	ND<5				
Chloroform	ND<0.5				
Carbon tetrachloride	ND<0.5				
1,1-Dichloropropene	ND<1				
Benzene	ND<0.5	111/102	8	70-130	30
1,2-Dichloroethane	ND<1				
Trichloroethene	ND<0.5	79/71	11	70-130	30
1,2-Dichloropropane	ND<1				
Dibromomethane	ND<1				
Bromodichloromethane	ND<1				
trans-1,3-Dichloropropene	ND<1				
4-Methyl-2-pentanone	ND<1				
Toluene	ND<0.5	109/98	11	70-130	30
cis-1,3-Dichloropropene	ND<1				
1,1,2-Trichloroethane	ND<1				
Tetrachloroethene	ND<0.5				
1,3-Dichloropropane	ND<1				
2-Hexanone	ND<1				
Dibromochloromethane	ND<1				
1,2-Dibromoethane	ND<0.5				
Chlorobenzene	ND<1	90/90	0	70-130	30
1,1,1,2-Tetrachloroethane	ND<1				
Ethylbenzene	ND<0.5				
Xylene, Isomers m & p	ND<1				
o-Xylene	ND<0.5				
Styrene	ND<1				

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Volatile Organics by GC/MS Method 8260B
Quality Control/Quality Assurance Summary

Laboratory Number	05-0209	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Bromoform	ND<1				
Isopropylbenzene	ND<1				
Bromobenzene	ND<1				
1,1,2,2-Tetrachloroethane	ND<1				
n-Propylbenzene	ND<1				
2-Chlorotoluene	ND<1				
4-Chlorotoluene	ND<1				
1,3,5-Trimethylbenzene	ND<1				
tert-Butylbenzene	ND<1				
1,2,4-Trimethylbenzene	ND<1				
1,3-Dichlorobenzene	ND<1				
1,4-Dichlorobenzene	ND<1				
sec-Butylbenzene	ND<1				
1,2-Dichlorobenzene	ND<1				
n-Butylbenzene	ND<1				
Naphthalene	ND<1				
1,2,4-Trichlorobenzene	ND<1				
Hexachlorobutadiene	ND<1				
1,2,3-Trichlorobenzene	ND<1				
1,2,3-Trichloropropane	ND<1				
Acetonitrile	ND<5				
Acrylonitrile	ND<1				
Isobutanol	ND<5				
1,1,1-Trichloroethane	ND<1				
SUR-Dibromofluoromethane	85	93/92	1	85-115	30
SUR-Toluene-d8	92	110/103	7	85-115	30
SUR-4-Bromofluorobenzene	91	96/96	0	85-115	30
SUR-1,2-Dichloroethane-d4	87	97/98	1	85-115	30

Reviewed and Approved

John A. Murphy
Laboratory Director

North State Labs
CA ELAP# 1753
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SAMPLE RECEIPT CHECKLIST

Client Name: Piers Environmental Ref/Subm No: 05-0209 Date: 2/11/05

Checked By: EK

Matrix: Soil: ____ Water: ✓ Other: ____

If Received via Shipment (If dropped off in person this section does not apply): ____

Carrier Name: ____

Shipping Container/Cooler In Good Condition? Yes: ____ No: ____

Custody Seals Intact on Shipping Container? Yes: ____ No: ____

Custody Seals intact on sample containers? Yes: ____ No: ____ Not Present: ✓

Chain of Custody present? Yes: ✓ No: ____

Chain of Custody Signatures & Date/Time correct? Yes: ✓ No: ____

Chain of custody agrees with sample labels? Yes: ✓ No: ____

Samples in proper containers? Yes: ✓ No: ____

Sample containers intact? Yes: ✓ No: ____

Sufficient sample volume for indicated tests? Yes: ✓ No: ____

All Samples received within holding times? Yes: ✓ No: ____

Temperature Blank present? Record Temp if present. Yes: ____ No: ✓ Temp: ____

For water samples- VOAS have zero headspace? Yes: ✓ No: ____ NA: ____

For water samples- pH acceptable on receipt? Yes: ✓ No: ____ NA: ____

pH adjusted - Preservative used: HNO_3: ____ HCl: ____ H_2SO_4: ____ NaOH: ____ ZnOAc: ____
Lot: ____

Corrective Action Record:

Client Contacted: ____ Date Contacted: ____ Person Contacted: ____

Contacted by: ____ Regarding: ____

Comments: ____

Corrective Action: ____

NORTH STATE LABS

FLUID-LEVEL MONITORING DATA

Project No: _____ Date: 2-11-05

Project/Site Location: 2926-42 SAN PABLO AVE, OAKLAND, CA

Technician: SC Method: ELECTRONIC

Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	Comments
MW-1	10.56			36.60	1110
MW-2	11.94			33.11	1100
MW-3	11.90			36.05	1050

Measurements referenced to top of well casing. NORTH

Page 1 of 1

NORTH STATE LABS

WELL PURGING/SAMPLING DATA

Project Number: _____ Date: 2-11-05

Project / Site Location: SAN PABLO AUTO BODY
2942 SAN PABLO AVE., OAKLAND, CA

Sampler/Technician:

Casing Diameter (inches)	(0.75)	2	4	6
Casing Volumes (gallons/foot)	0.02	0.2	0.7	1.52

Well No. MW-1

A. Total Well Depth	36.60
B. Depth To Water	10.56
C. Water Height (A-B)	26.04
D. Well Casing Diameter	0.75
E. Casing Volume	0.02
F. Single Case Volume (CxE)	.53
G. Case Volume(s)(CxEx)	1.59
H. 80% Recharge Level	11.09

Purge Event
Start Time: 1325
Finish Time: 1350
Purge Volume: 1.59
Recharge
Depth to Water: 10.96
Time Measured: 1410

Well Fluid Parameters:				
Gals.	0	.50	1.00	1.60
pH	7.10	7.31	7.35	7.32
T(°C)	18.7	18.1	18.3	18.6
Cond.	737	721	719	724
DO mg/L				
DO %				
Turbidity				
ORP				

Summary Data:
Total Gallons Purged: 1.59
Purge device: DISP. BAILER
Sampling Device: DISP. BAILER
Sample Collection Time: 1420
Sample Appearance/Odor: CLEAR / N/A

Well No. MW-2

A. Total Well Depth	33.11
B. Depth To Water	11.94
C. Water Height (A-B)	21.17
D. Well Casing Diameter	0.75
E. Casing Volume	0.02
F. Single Case Volume (CxE)	.42
G. Case Volume(s)(CxEx)	1.26
H. 80% Recharge Level	12.36

Purge Event
Start Time: 1245
Finish Time: 1310
Purge Volume: 1.26
Recharge
Depth to Water: 11.97
Time Measured: 1405

Well Fluid Parameters:				
Gals.	0	.40	.80	1.26
pH	6.74	6.93	6.98	6.92
T(°C)	19.0	19.1	18.8	19.5
Cond.	678	643	669	640
DO mg/L	--			
DO %				
Turbidity				
ORP				

Summary Data:
Total Gallons Purged: 1.26
Purge device: DISP. BAILER
Sampling Device: DISP. BAILER
Sample Collection Time: 1415
Sample Appearance/Odor: CLEAR / N/A

2942 SAN PABLO AVE, OAKLAND, CA

Sampler/Technician:

Casing Diameter (inches)	(A) 0.75	2	4	6
Casing Volumes (gallons/foot)	0.02	0.2	0.7	1.52

Well No. MW-3

A. Total Well Depth	36.05
B. Depth To Water	11.90
C. Water Height (A-B)	24.15
D. Well Casing Diameter	0.75
E. Casing Volume	0.02
F. Single Case Volume (CxE)	.48
G. Case Volume(s)(CxEx)	1.44
H. 80% Recharge Level	12.38

Purge Event	
Start Time:	1210
Finish Time:	1235
Purge Volume:	1.44
Recharge	
Depth to Water:	1232
Time Measured:	1435

Well Fluid Parameters:				
Gals.	0	.50	1.00	1.44
pH	6.90	7.17	7.19	7.16
T (°C)	18.8	18.2	18.6	18.9
Cond.	817	753	731	743
DO mg/L				
DO %				
Turbidity				
ORP				

Summary Data:	
Total Gallons Purged:	1.44
Purge device:	
Sampling Device:	DISP. BAILER
Sample Collection Time:	1450
Sample Appearance/Odor:	CLEAR/ N/A

Well No. _____

A. Total Well Depth	
B. Depth To Water	
C. Water Height (A-B)	
D. Well Casing Diameter	
E. Casing Volume	
F. Single Case Volume (CxE)	
G. Case Volume(s)(CxEx)	
H. 80% Recharge Level	

Purge Event	
Start Time:	
Finish Time:	
Purge Volume:	
Recharge	
Depth to Water:	
Time Measured:	

Well Fluid Parameters:				
Gals.				
pH				
T (°C)				
Cond.				
DO mg/L	--			
DO %				
Turbidity				
ORP				

Summary Data:	
Total Gallons Purged:	
Purge device:	
Sampling Device:	
Sample Collection Time:	
Sample Appearance/Odor:	