Discontinue SVICS + HVOC analysis
Just do TPHg, BTEX + MTBE -
do confirmation (8260) in
MW-1 and MW-2

QUARTERLY MONITORING REPORT
Three Months Ending 01/31/00

5930 College Avenue
Oakland, California
STID # 514

Job No. 7335
February 18, 2000

prepared for

William G. Sheaff TTE Trust
Mr. Brian Sheaff
1945 Parkside Drive
Concord, CA 94519

Tracy Wallace
Principal

REGISTERED PROFESSIONAL ENGINEER
JOHN CARVER
No. 23772
Exp. 12-21-01
CIVIL
STATE OF CALIFORNIA

Civil Engineer

255 Shipley Street San Francisco, CA 94107 Phone(415) 512-1555 Fax. (415) 512-0964

Introduction

This report presents the results and findings of the January 26, 2000 quarterly groundwater sampling conducted by GOLDEN GATE TANK REMOVAL (GGTR) at the 5930 College Avenue Leaking Underground Tank (LUST) site in Oakland, California. This monitoring episode was for the three month period ending January 31, 2000 and was the second monitoring event of all three monitoring wells on the site. The Alameda County Health Services Agency (HSA) has designated the site STID (case ID) 514. A Vicinity Map showing the general area of the site is presented on Figure 1 of Appendix A, and a Site Plan is shown on Figure 2 of Appendix A.

Project History

Two underground storage tanks were removed from the site during 1996 by GGTR. The following summary shows the tank designations, size, type of construction and contents.

Designation	Construction	diameter (feet)	length (feet)	size (gallons)	contents
TANK 1	steel	4	7	675	gasoline
TANK 2	steel	4	3.5	340	waste oil

The ages of the tanks are unknown but are believed to be between 40 and 60 years old. During the removal there was evidence of a leak and a program of over-excavation of contaminated soil was carried out by GGTR. The removal and over-excavation was documented in the GGTR report dated October 11, 1996.

The following Chronology shows the significant work carried out at the site.

CHRONOLOGY

08/06/96	Tanks 1 and 2 were removed and samples taken.
08/15/96	A Work Plan was published by GGTR for additional excavation and soil disposal.
09/30/96	Additional excavation performed.
10/01/96	Last of additional excavation soil disposed of at a Class II facility.
10/11/96	TANK REMOVAL REPORT published by GGTR.
12/30/96	HSA published letter requiring soil and groundwater investigation.
03/10/97	GGTR authorized to prepare a Work Plan for additional investigation.
04/01/97	GGTR publishes work plan for a Soil and Groundwater Investigation.
04/21/97	HSA published letter authorizing work plan.
05/06/98	GGTR drills borings B1 through B3.
05/20/98	GGTR drills boring B4 (Monitoring Well MW1).
05/27/98	GGTR develops monitoring well MW1.
06/01/98	GGTR measures, purges and samples monitoring well MW1.
06/17/98	GGTR publishes Soil and Groundwater Investigation Report.

07/21/98	GGTR publishes Work Plan Addendum for installation of two additional groundwater monitoring wells
09/10/98	GGTR measures, purges and samples monitoring well MW1.
09/21/98	GGTR publishes Groundwater Monitoring Report.
10/02/99	GGTR drills two borings (B5 and B6) and converts them to groundwater monitoring Wells (MW2 and MW3).
10/04/99	GGTR develops monitoring wells MW2 and MW3.
10/07/99	GGTR surveys monitoring wells MW2 and MW3 and measures, purges and samples monitoring wells MW1, MW2 and MW3.
10/22/99	**GGTR publishes Summary Report.**
11/24/99	**HCS publishes letter requiring quarterly monitoring and setting parameters for January 2000 analyses.**
01/26/00	**GGTR measures, purges and samples monitoring wells MW1, MW2 and MW3.**

Field Procedures

The second complete three well monitoring and sampling was performed by GGTR on January 26, 2000 in accordance with the requirements and procedures of the California Regional Water Quality Control Board, San Francisco Region (RWQCB) and the HSA.

Prior to purging and sampling the wells, the depth to groundwater in each well was measured from the top of casing to the nearest 0.01 foot using an electronic sounding probe. A preliminary groundwater sample was also collected at this time and checked for the presence of liquid-phase hydrocarbons or sheen with a clear acrylic bailer.

After measuring, each well was purged a minimum of three casing volumes until the pH, temperature and conductivity of the purge water were essentially stable. Groundwater samples for analyses were collected by lowering a disposable, 2 inch diameter bottom-fill, polyvinyl chloride (PVC) bailer to just below the air-water interface in the wells. The sample was then carefully decanted from the bailer into the appropriate containers. All volatile organic analysis (VOA) vials were inverted and checked to insure that no entrapped air was present. The samples were then properly labeled with the sample number, well number, sample date, and the sampler's initials. The samples were then stored in an iced cooler for delivery to a California certified laboratory following proper preservation and chain-of-custody procedures.

Sample Analyses

The groundwater samples taken from the all three wells were analyzed for the following:

- Total Petroleum Hydrocarbons as Gasoline (TPH-G),
- Volatile aromatic hydrocarbons Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX),
- Methyl Tertiary Butyl Ether (MTBE).

Additionally, per the HCS letter of 11/04/99 the sample from MW3 was also analyzed for:

- Volatile Organic Compounds (VOC),
- Semi-Volatile Organic Compounds (SVOC),

All volatile analyses were performed by January 31, 2000. This 5 day hold time is in conformance with the maximum 14 day hold time for these analyses. Quality Assurance and Quality Control (QA/QC) details are shown on the laboratory certificates in Appendix B.

Monitoring and Analytical Results

The results of the monitoring and laboratory analyses of the groundwater carried out to date are summarized in Table 1, attached. Copies of the official laboratory certificates and the chain-of-custody form are included in Appendix B.

There was a sheen noted during the purging and sampling of the groundwater monitoring well MW1. There was an odor associated with the purge water. No sheen or odors were noted in MW2 or MW3. Documentation of the purging and sampling is contained in Appendix C.

The measurements taken during the monitoring were used to calculate a groundwater gradient. The groundwater gradient for the January 26, 2000 monitoring event has been calculated and is shown on Figure 3 of Appendix B. The groundwater gradient calculated for the second monitoring event with three data points is:

Date	Direction	Slope
10/07/99	11° west of south	0.67 feet per 100 feet
01/26/00	**23° west of north**	**9.12 feet per 100 feet**

Discussion

The results of the January, 2000 sampling episode have been reviewed along with the results of the previous monitoring episodes. There was an increase in TPH-G in MW 1 and MW2. TPH-G decreased in MW3.

There was a significant shift in the groundwater gradient. It shifted from almost due south to almost due north (a 142 degree shift). the shift may have been a result of heavy rains which occurred in the several days preceding the monitoring event and also to the extreme shallow nature of the groundwater (5 to 8 feet below grade).

All analytical results are tabulated on Table 1 presented as Appendix A. Copies of the Laboratory Reports are presented in Appendix B.

We recommend that the monitoring of the three groundwater monitoring wells be continued on a quarterly basis as required by the LUFT manual and the HSA. The next

scheduled quarterly monitoring should occur during April 2000. The three samples obtained at that time should be analyzed for TPH-G, BTEX and MTBE The sample obtained from MW3 will also be analyzed for Total Oil and Grease, VOC and SVOC.

Report Submittal to Regulatory Agencies
We recommend that copies of this report be sent to:

Alameda County Health Care Services
Environmental Health Services
Environmental Protection (LOP)
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502
Attention: Eva Chu

and

California Regional Water Quality Control Board
San Francisco Region
2101 Webster Street, Suite 500
Oakland, California 94612

APPENDIX A

TABLE I

GROUNDWATER MONITORING

FOR

5930 College Avenue
Oakland, California
STID # 514

Job No. 7335
January 18, 2000

GROUNDWATER MONITORING RESULTS
PROJECT 7335

TABLE I

Monitoring Well Number	Sample Date	Casing Elevation	Depth to Ground-water (feet)	Ground-water Elevation	Free Product or Sheen	TPH-G (ppb)	TEPH (ppm)	MTBE (ppb)	BTEX (ppb)
MW1	06/01/98	50.00*	4.81	45.19	slight sheen	160,000	ND	1,900	28,000/21,000/3,800/21,000
MW1	09/10/98	50.00	7.50	42.50	odor	290,000	ND	440	<50/25,000/7,100/32,000
MW1	10/07/99	50.00	10.04	39.96	odor	85,000	ND	1,100	20,000/13,000/3,800/17,000
MW1	**01/26/00**	**50.00**	**8.26**	**41.74**	**slight sheen**	**130,000**	--	**470**	**25,000/18,000/4,500/22,000**
MW2	10/07/99	51.42	11.49	39.93	slight odor	18,000	ND	490	3,000/1,700/1,000/3,900
MW2	**01/26/00**	**51.42**	**7.85**	**43.57**	**none**	**42,000**	--	**560**	**9,300/2,200/2,300/7,700**
MW3	10/07/99	49.39	9.67	39.72	none	6,600	ND	390	310/110/430/1,000
MW3	**01/26/00**	**49.39**	**5.40**	**43.99**	**none**	**3,300**	--	**40****	**110/8/100/32**

** ND MTBE w/8260

NOTES:

TPH-G	Total Petroleum Hydrocarbons as Gasoline
TPH-D	Total Petroleum Hydrocarbons as Diesel
TEPH	Total Extractable Petroleum Hydrocarbons
MTBE	Methyl Tertiary Butyl Ether
ppb	parts per billion
ppm	parts per million
*	assumed
--	Not analyzed

The following Volatile Organic Compounds (VOC) were detected in the sample from MW3.

ANALYTE	parts per billion
Benzene	90
Toluene	2
Ethylbenzene	78
m,p-Xylene	14
o-Xylene	1
Isopropylbenzene	18
n-Propyl Benzene	51
1,3,5-Trimethylbenzene	6
1,2,4-Trimethylbenzene	23
sec-Butylbenzene	6
p-Isopropyltoluene	1
Napthalene	28

All other analytes were non detect (ND)

The following Semi-Volatile Organic Compounds (SVOC) were detected in the sample from MW3.

ANALYTE	parts per billion
Napthalene	21

All other analytes were non detect (ND)

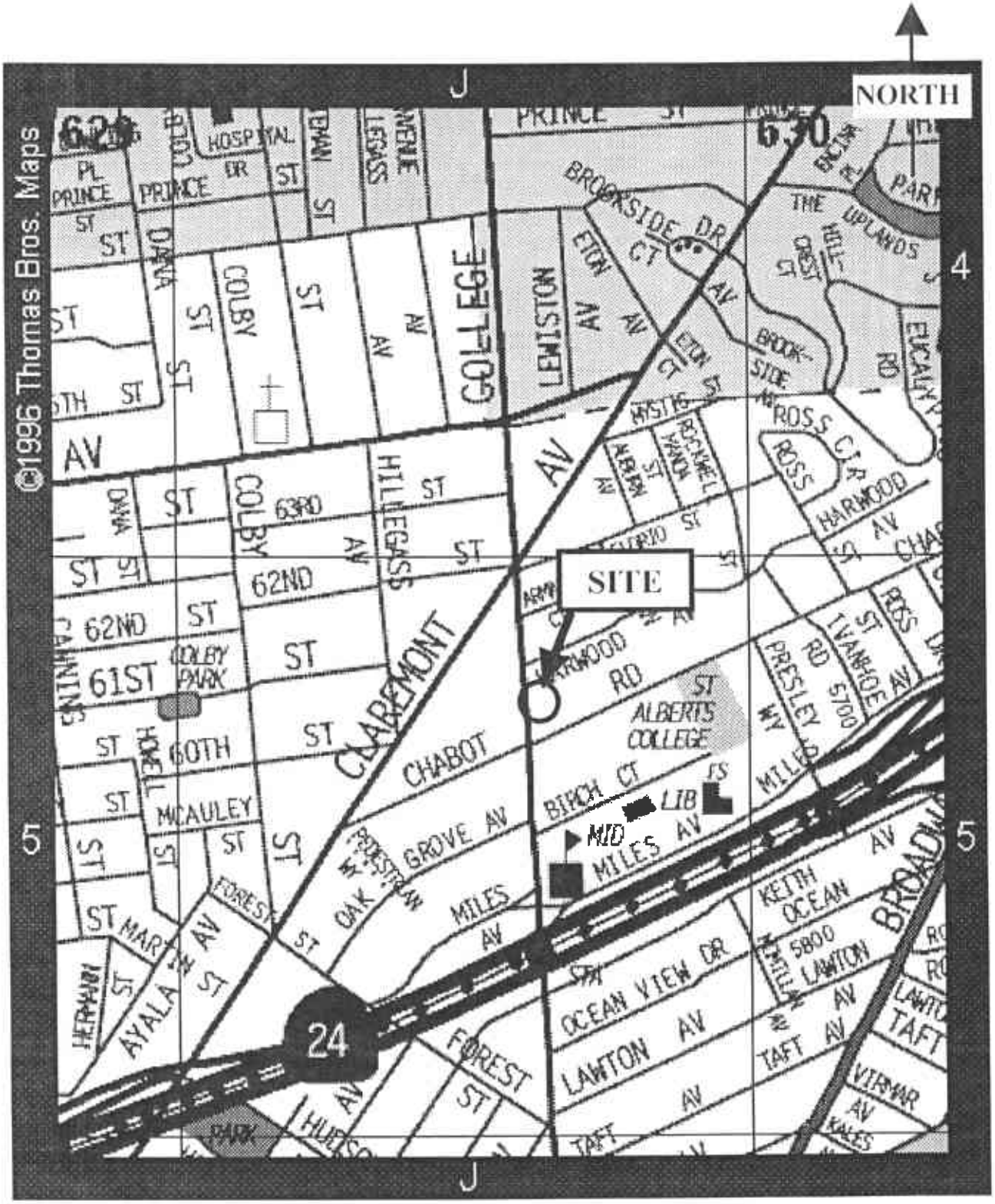
APPENDIX B
FIGURES 1, 2 AND 3

GROUNDWATER MONITORING

FOR

5930 College Avenue
Oakland, California
STID # 514

Job No. 7335
January 18, 2000



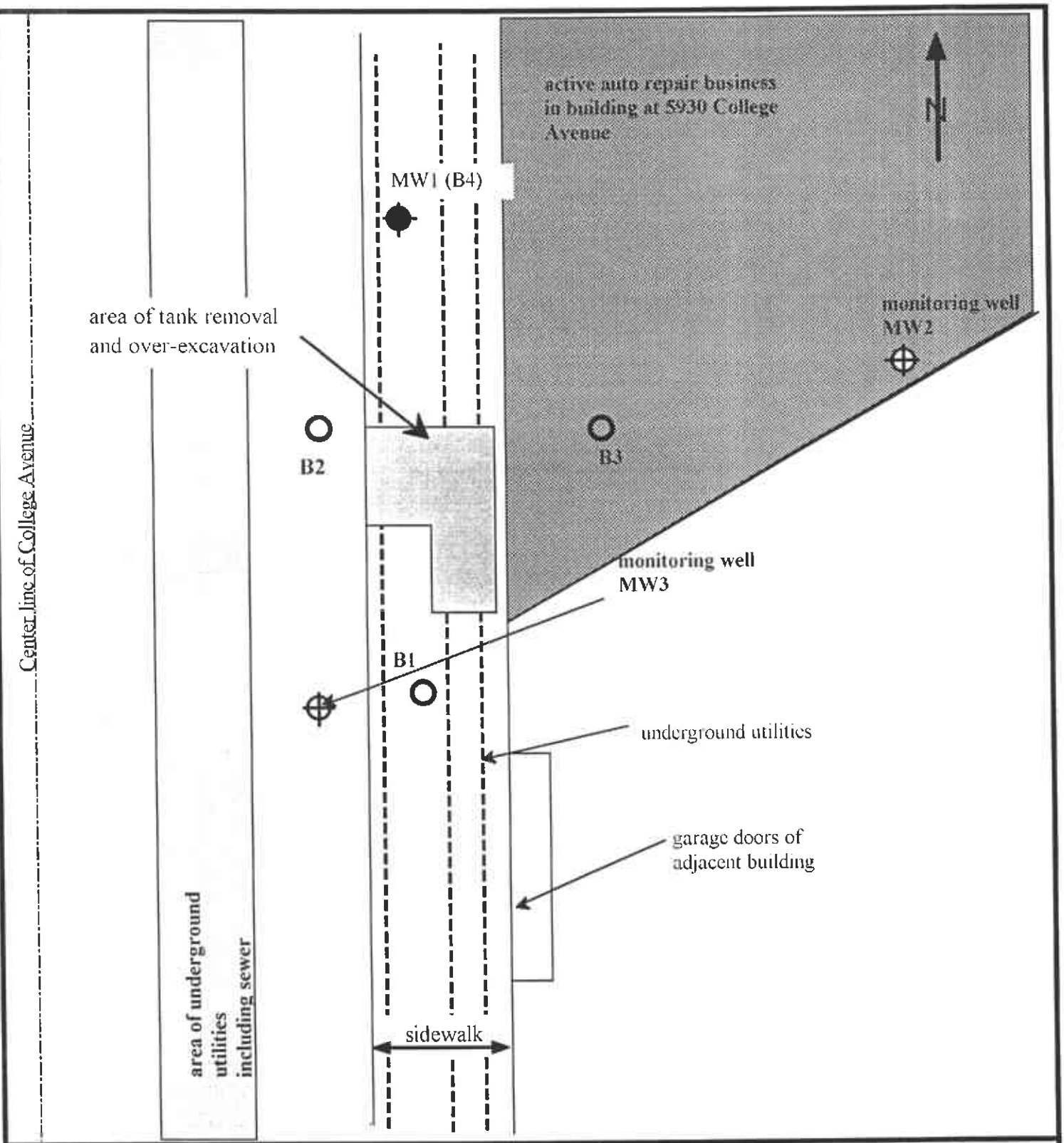
GOLDEN GATE TANK REMOVAL

255 Shipley Street
San Francisco, California 94107
Telephone (415) 512 1555 Fax (415) 512 0964

VICINITY MAP

5930 College Avenue
Oakland, California

Project 7335	By: jnc	Not to scale	January, 2000	Figure 1



GOLDEN GATE TANK REMOVAL

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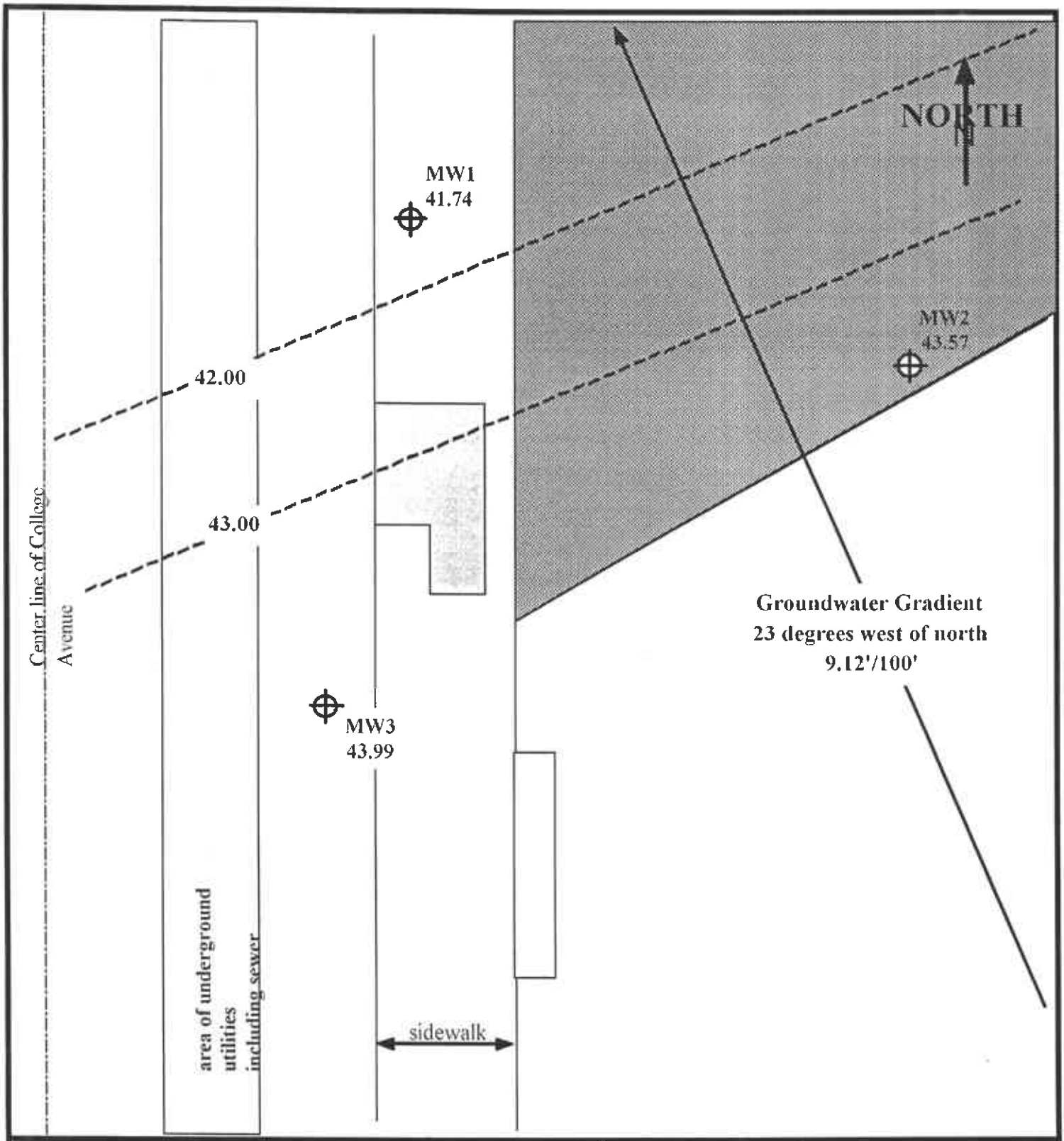
San Francisco, CA 94107
Telephone (415) 512 1555 Fax (415) 512 0964

SITE PLAN
5930 College Avenue
Oakland, California

Project 7335	By: jnc	1" = 10'	February 2000	Figure 2



GOLDEN GATE TANK REMOVAL

255 Shipley Street
San Francisco, CA 94107
Telephone (415) 512 1555 Fax (415) 512 0964

GROUNDWATER GRADIENT
01/26/00
5930 College Avenue
Oakland, California

Project 7335	By: jnc	1" = 10'	February 2000	Figure 3

APPENDIX C
LABORATORY CERTIFICATES
AND
CHAIN OF CUSTODY

GROUNDWATER MONITORING

FOR

5930 College Avenue
Oakland, California
STID # 514

Job No. 7335
January 18, 2000

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

CERTIFICATE OF ANALYSIS

Lab Number: 00-0119
Client: Golden Gate Tank
Project: 7335/5930 College

Date Reported: 02/04/2000

Gasoline,BTEX and MTBE by Methods 8015M and 8020

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 00-0119-01 Client ID: 7335-MW1				01/26/2000	WATER
Gasoline	8015M	130000	ug/L		01/27/2000
Benzene	8020	25000	ug/L		
Ethylbenzene	8020	4500	ug/L		
MTBE	8020	470	ug/L		
Toluene	8020	18000	ug/L		
Xylenes	8020	22000	ug/L		
Sample: 00-0119-02 Client ID: 7335-MW2				01/26/2000	WATER
Gasoline	8015M	42000	ug/L		01/27/2000
Benzene	8020	9300	ug/L		
Ethylbenzene	8020	2300	ug/L		
MTBE	8020	*560	ug/L		
Toluene	8020	2200	ug/L		
Xylenes	8020	7700	ug/L		
Sample: 00-0119-03 Client ID: 7335-MW3				01/26/2000	WATER
Gasoline	8015M	3300	ug/L		01/27/2000
Benzene	8020	110	ug/L		
Ethylbenzene	8020	100	ug/L		
MTBE	8020	40	ug/L		
Toluene	8020	8	ug/L		
Xylenes	8020	32	ug/L		

*Confirmed by GC/MS method 8260.

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

Quality Control/Quality Assurance

Lab Number: 00-0119
Client: Golden Gate Tank
Project: 7335/5930 College

Date Reported: 02/04/2000

Gasoline,BTEX and MTBE by Methods 8015M and 8020

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Gasoline	8015M	50	ug/L	ND	121	13
Benzene	8020	0.5	ug/L	ND	106	0
Ethylbenzene	8020	0.5	ug/L	ND	121	1
Toluene	8020	0.5	ug/L	ND	116	2
Xylenes	8020	1.0	ug/L	ND	122	1
MTBE	8020	0.5	ug/L	ND	109	13

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy,Laboratory Director

North State Environmental Laboratory
CA ELAP # 1753
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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 00-0119
Client : Golden Gate Tank
Project : 7335/5930 College

Date Sampled : 01/26/2000
Date Analyzed: 01/31/2000
Date Reported: 02/04/2000

Volatile Organics by GC/MS Method 8260

Laboratory Number	00-0119-03
Client ID	7335-MW3
Matrix	WATER
Analyte	ug/L
Bromochloromethane	ND<5
Dichlorodifluoromethane	ND<5
Chloromethane	ND<5
Vinyl Chloride	ND<5
Bromomethane	ND<5
Chloroethane	ND<5
Trichlorofluoromethane	ND<1
1,1-Dichloroethene	ND<1
Acetone	ND<50
Trichlorotrifluoroethane	ND<1
Methylene Chloride	ND<100
t-1,2-Dichloroethene	ND<1
Methyl-t-butyl Ether	ND<1
1,1-Dichloroethane	ND<1
2,2-Dichloropropane	ND<1
cis-1,2-Dichloroethene	ND<1
2-Butanone	ND<10
Chloroform	ND<1
1,1,1-Trichloroethane	ND<1
Carbon Tetrachloride	ND<1
1,1-Dichloropropene	ND<1
Benzene	90
1,2-Dichloroethane	ND<1
Trichloroethene	ND<1
1,2-Dichloropropane	ND<1
Dibromomethane	ND<1
Bromodichloromethane	ND<1
trans-1,3-Dichloropropene	ND<1
4-Methyl-2-Pentanone	ND<10
Toluene	2
cis-1,3-Dichloropropene	ND<1
1,1,2-Trichloroethane	ND<1
Tetrachloroethene	ND<1
1,3-Dichloropropane	ND<1
2-Hexanone	ND<10
Dibromochloromethane	ND<1

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

Job Number: 00-0119
Client : Golden Gate Tank
Project : 7335/5930 College

Date Sampled : 01/26/2000
Date Analyzed: 01/31/2000
Date Reported: 02/04/2000

Volatile Organics by GC/MS Method 8260

Laboratory Number	00-0119-03
Client ID	7335-MW3
Matrix	WATER
Analyte	ug/L
1,2-Dibromoethane	ND<1
Chlorobenzene	ND<1
1,1,1,2-Tetrachloroethane	ND<1
Ethylbenzene	78
m,p-Xylene	14
o-Xylene	1
Styrene	ND<1
Bromoform	ND<1
Isopropylbenzene	18
Bromobenzene	ND<1
1,1,2,2-Tetrachloroethane	ND<1
n-Propyl Benzene	51
2-Chlorotoluene	ND<1
4-Chlorotoluene	ND<1
1,3,5-Trimethylbenzene	6
tert-Butylbenzene	ND<1
1,2,4-Trimethylbenzene	23
1,3-Dichlorobenzene	ND<1
1,4-Dichlorobenzene	ND<1
sec-Butylbenzene	6
1,2-Dichlorobenzene	ND<1
p-Isopropyltoluene	1
n-Butylbenzene	ND<1
1,2-Dibromo-3-chloropropa	ND<1
Naphthalene	28
1,2,4-Trichlorobenzene	ND<1
Hexachlorobutadiene	ND<1
1,2,3-Trichlorobenzene	ND<1
1,2,3-Trichloropropane	ND<1
SUR-Dibromofluoromethane	95% Rec
SUR-Toluene d8	104% Rec
SUR-4-Bromofluorobenzene	101% Rec

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

Job Number: 00-0119
Client : Golden Gate Tank
Project : 7335/5930 College

Date Sampled : 01/26/2000
Date Analyzed: 01/31/2000
Date Reported: 02/04/2000

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

Laboratory Number	00-0119	MS/MSD	RPD
Client ID	Blank	Recovery	
Matrix	WATER	WATER	
Analyte	Results ug/L	%Recoveries	
Bromochloromethane	ND<5		
Dichlorodifluoromethane	ND<5		
Chloromethane	ND<5		
Vinyl Chloride	ND<5		
Bromomethane	ND<5		
Chloroethane	ND<5		
Trichlorofluoromethane	ND<1		
1,1-Dichloroethene	ND<1	94	7
Acetone	ND<50		
Trichlorotrifluoroethane	ND<1		
Methylene Chloride	ND<100		
t-1,2-Dichloroethene	ND<1		
Methyl-t-butyl Ether	ND<1		
1,1-Dichloroethane	ND<1		
2,2-Dichloropropane	ND<1		
cis-1,2-Dichloroethene	ND<1		
2-Butanone	ND<10		
Chloroform	ND<1		
1,1,1-Trichloroethane	ND<1		
Carbon Tetrachloride	ND<1		
1,1-Dichloropropene	ND<1		
Benzene	ND<1	107	3
1,2-Dichloroethane	ND<1		
Trichloroethene	ND<1	98	4
1,2-Dichloropropane	ND<1		
Dibromomethane	ND<1		
Bromodichloromethane	ND<1		
trans-1,3-Dichloropropene	ND<1		
4-Methyl-2-Pentanone	ND<10		
Toluene	ND<1	102	4
cis-1,3-Dichloropropene	ND<1		
1,1,2-Trichloroethane	ND<1		
Tetrachloroethene	ND<1		
1,3-Dichloropropane	ND<1		
2-Hexanone	ND<10		
Dibromochloromethane	ND<1		
1,2-Dibromoethane	ND<1		
Chlorobenzene	ND<1	114	4
1,1,1,2-Tetrachloroethane	ND<1		
Ethylbenzene	ND<1		
m,p-Xylene	ND<1		

North State Environmental Laboratory
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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 00-0119
Client : Golden Gate Tank
Project : 7335/5930 College

Date Sampled : 01/26/2000
Date Analyzed: 01/31/2000
Date Reported: 02/04/2000

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

Laboratory Number	00-0119	MS/MSD	RPD
Client ID	Blank	Recovery	
Matrix	WATER	WATER	
Analyte	Results ug/L	%Recoveries	
o-Xylene	ND<1		
Styrene	ND<1		
Bromoform	ND<1		
Isopropylbenzene	ND<1		
Bromobenzene	ND<1		
1,1,2,2-Tetrachloroethane	ND<1		
n-Propyl Benzene	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		
p-Isopropyltoluene	ND<1		
n-Butylbenzene	ND<1		
1,2-Dibromo-3-chloropropa	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		
SUR-Dibromofluoromethane	90% Rec	100/107	7
SUR-Toluene d8	103% Rec	103/104	1
SUR-4-Bromofluorobenzene	95% Rec	100/100	0

Reviewed and Approved:

John A. Murphy
Laboratory Director

North State Environmental Analytical Laboratory

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

00-0119

Chain of Custody / Request for Analysis

Lab Job No.: _____ Page 1 of ____

Client: GGTR	Report to: Carver	Phone:	Turnaround Time: NTAT
Mailing Address:	Billing to:	Fax:	
		PO# / Billing Reference: 7335	Date: 01/26/00
			Sampler: Carver

Project / Site Address: 5930 College

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time		Analysis Requested: TPH-G/BTEX	TPH-D	BTEX	VOC	SVOC			Comments / Hazards
1	7335-MW1	Wat	14-VOA	Cool	01/26/00	1230	X	X	X					
2	7335-MW2	"	"	"	"	1130	X	X	X					
3	7335-MW3	"	"	"	"	1330	X	X	X	X	X			

Relinquished by:	Date: 1/26/00	Time: 4:05 PM	Received by:	Lab Comments
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-01-0434

Semi-volatile Organic Compounds

North State Environmental

90 S. Spruce Street, Suite W
South San Francisco, CA 94080

Attn: John Murphy

Phone: (650) 266-4563 Fax: (650) 266-4560

Project #: 00-0119 Project

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
7335-MW-3	Water	01/26/2000 13:30	1

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-01-0434

To: **North State Environmental**
Attn.: John Murphy

Test Method: 8270A
Prep Method: 3510/8270A

Semi-volatile Organic Compounds

Sample ID:	**7335-MW-3**	Lab Sample ID:	**2000-01-0434-001**
Project:	00-0119	Received:	01/28/2000 13:40
		Extracted:	01/31/2000 12:23
Sampled:	01/26/2000 13:30	QC-Batch:	2000/01/31-01.11
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Bis(2-chloroethyl)ether	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2-Chlorophenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
1,3-Dichlorobenzene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
1,4-Dichlorobenzene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Benzyl alcohol	ND	5.0	ug/L	1.00	02/01/2000 05:23	
1,2-Dichlorobenzene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2-Methylphenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Bis(2-chloroisopropyl) ether	ND	2.0	ug/L	1.00	02/01/2000 05:23	
4-Methylphenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
N-Nitroso-di-n-propylamine	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Hexachloroethane	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Nitrobenzene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Isophorone	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2-Nitrophenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2,4-Dimethylphenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Bis(2-chloroethoxy) methane	ND	5.0	ug/L	1.00	02/01/2000 05:23	
2,4-Dichlorophenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
1,2,4-Trichlorobenzene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Naphthalene	21	2.0	ug/L	1.00	02/01/2000 05:23	
4-Chloroaniline	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Hexachlorobutadiene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
4-Chloro-3-methylphenol	ND	5.0	ug/L	1.00	02/01/2000 05:23	
2-Methylnaphthalene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Hexachlorocyclopentadiene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2,4,6-Trichlorophenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2,4,5-Trichlorophenol	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2-Chloronaphthalene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2-Nitroaniline	ND	10	ug/L	1.00	02/01/2000 05:23	
Dimethyl phthalate	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Acenaphthylene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
3-Nitroaniline	ND	10	ug/L	1.00	02/01/2000 05:23	
Acenaphthene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2,4-Dinitrophenol	ND	10	ug/L	1.00	02/01/2000 05:23	
4-Nitrophenol	ND	10	ug/L	1.00	02/01/2000 05:23	
Dibenzofuran	ND	2.0	ug/L	1.00	02/01/2000 05:23	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-01-0434

To: **North State Environmental**
Attn.: John Murphy

Test Method: 8270A
Prep Method: 3510/8270A

Semi-volatile Organic Compounds

Sample ID: **7335-MW-3**
Project: 00-0119
Sampled: 01/26/2000 13:30
Matrix: Water

Lab Sample ID: **2000-01-0434-001**
Received: 01/28/2000 13:40
Extracted: 01/31/2000 12:23
QC-Batch: 2000/01/31-01.11

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
2,4-Dinitrotoluene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
2,6-Dinitrotoluene	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Diethyl phthalate	ND	5.0	ug/L	1.00	02/01/2000 05:23	
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Fluorene	ND	5.0	ug/L	1.00	02/01/2000 05:23	
4-Nitroaniline	ND	10	ug/L	1.00	02/01/2000 05:23	
2-Methyl-4,6-dinitrophenol	ND	10	ug/L	1.00	02/01/2000 05:23	
N-Nitrosodiphenylamine	ND	2.0	ug/L	1.00	02/01/2000 05:23	
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Hexachlorobenzene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Pentachlorophenol	ND	10	ug/L	1.00	02/01/2000 05:23	
Phenanthrene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Anthracene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Di-n-butyl phthalate	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Fluoranthene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Pyrene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Butyl benzyl phthalate	ND	5.0	ug/L	1.00	02/01/2000 05:23	
3,3-Dichlorobenzidine	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Benzo(a)anthracene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
bis(2-Ethylhexyl) phthalate	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Chrysene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Di-n-octyl phthalate	ND	5.0	ug/L	1.00	02/01/2000 05:23	
Benzo(b)fluoranthene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Benzo(k)fluoranthene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Benzo(a)pyrene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Dibenzo(a,h)anthracene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Benzo(g,h,i)perylene	ND	2.0	ug/L	1.00	02/01/2000 05:23	
Benzoic acid	ND	10	ug/L	1.00	02/01/2000 05:23	
Surrogate(s)						
Nitrobenzene-d5	76.9	35-114	%	1.00	02/01/2000 05:23	
2-Fluorobiphenyl	85.8	43-116	%	1.00	02/01/2000 05:23	
p-Terphenyl-d14	91.4	33-141	%	1.00	02/01/2000 05:23	
Phenol-d5	33.9	10-110	%	1.00	02/01/2000 05:23	
2-Fluorophenol	49.5	25-100	%	1.00	02/01/2000 05:23	
2,4,6-Tribromophenol	97.9	10-123	%	1.00	02/01/2000 05:23	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-01-0434

To: **North State Environmental**
Attn.: John Murphy

Test Method: 8270A
Prep Method: 3510/8270A

Batch QC Report

Semi-volatile Organic Compounds

Method Blank **Water** **QC Batch # 2000/01/31-01.11**

MB: 2000/01/31-01.11-001 Date Extracted: 01/31/2000

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Phenol	ND	2.0	ug/L	01/31/2000 15:23	
Bis(2-chloroethyl)ether	ND	2.0	ug/L	01/31/2000 15:23	
2-Chlorophenol	ND	2.0	ug/L	01/31/2000 15:23	
1,3-Dichlorobenzene	ND	2.0	ug/L	01/31/2000 15:23	
1,4-Dichlorobenzene	ND	2.0	ug/L	01/31/2000 15:23	
Benzyl alcohol	ND	5.0	ug/L	01/31/2000 15:23	
1,2-Dichlorobenzene	ND	2.0	ug/L	01/31/2000 15:23	
2-Methylphenol	ND	2.0	ug/L	01/31/2000 15:23	
Bis(2-chloroisopropyl) ether	ND	2.0	ug/L	01/31/2000 15:23	
4-Methylphenol	ND	2.0	ug/L	01/31/2000 15:23	
N-Nitroso-di-n-propylamine	ND	2.0	ug/L	01/31/2000 15:23	
Hexachloroethane	ND	2.0	ug/L	01/31/2000 15:23	
Nitrobenzene	ND	2.0	ug/L	01/31/2000 15:23	
Isophorone	ND	2.0	ug/L	01/31/2000 15:23	
2-Nitrophenol	ND	2.0	ug/L	01/31/2000 15:23	
2,4-Dimethylphenol	ND	2.0	ug/L	01/31/2000 15:23	
Bis(2-chloroethoxy) methane	ND	5.0	ug/L	01/31/2000 15:23	
2,4-Dichlorophenol	ND	2.0	ug/L	01/31/2000 15:23	
1,2,4-Trichlorobenzene	ND	2.0	ug/L	01/31/2000 15:23	
Naphthalene	ND	2.0	ug/L	01/31/2000 15:23	
4-Chloroaniline	ND	2.0	ug/L	01/31/2000 15:23	
Hexachlorobutadiene	ND	2.0	ug/L	01/31/2000 15:23	
4-Chloro-3-methylphenol	ND	5.0	ug/L	01/31/2000 15:23	
2-Methylnaphthalene	ND	2.0	ug/L	01/31/2000 15:23	
Hexachlorocyclopentadiene	ND	2.0	ug/L	01/31/2000 15:23	
2,4,6-Trichlorophenol	ND	2.0	ug/L	01/31/2000 15:23	
2,4,5-Trichlorophenol	ND	2.0	ug/L	01/31/2000 15:23	
2-Chloronaphthalene	ND	2.0	ug/L	01/31/2000 15:23	
2-Nitroaniline	ND	10	ug/L	01/31/2000 15:23	
Dimethyl phthalate	ND	5.0	ug/L	01/31/2000 15:23	
Acenaphthylene	ND	2.0	ug/L	01/31/2000 15:23	
3-Nitroaniline	ND	10	ug/L	01/31/2000 15:23	
Acenaphthene	ND	2.0	ug/L	01/31/2000 15:23	
2,4-Dinitrophenol	ND	10	ug/L	01/31/2000 15:23	
4-Nitrophenol	ND	10	ug/L	01/31/2000 15:23	
Dibenzofuran	ND	2.0	ug/L	01/31/2000 15:23	
2,4-Dinitrotoluene	ND	2.0	ug/L	01/31/2000 15:23	
2,6-Dinitrotoluene	ND	5.0	ug/L	01/31/2000 15:23	
Diethyl phthalate	ND	5.0	ug/L	01/31/2000 15:23	
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	01/31/2000 15:23	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-01-0434

To: **North State Environmental**
Attn.: John Murphy

Test Method: 8270A
Prep Method: 3510/8270A

Batch QC Report

Semi-volatile Organic Compounds

Method Blank **Water** **QC Batch # 2000/01/31-01.11**

MB: 2000/01/31-01.11-001 Date Extracted: 01/31/2000

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Fluorene	ND	5.0	ug/L	01/31/2000 15:23	
4-Nitroaniline	ND	10	ug/L	01/31/2000 15:23	
2-Methyl-4,6-dinitrophenol	ND	10	ug/L	01/31/2000 15:23	
N-Nitrosodiphenylamine	ND	2.0	ug/L	01/31/2000 15:23	
4-Bromophenyl phenyl ether	ND	5.0	ug/L	01/31/2000 15:23	
Hexachlorobenzene	ND	2.0	ug/L	01/31/2000 15:23	
Pentachlorophenol	ND	10	ug/L	01/31/2000 15:23	
Phenanthrene	ND	2.0	ug/L	01/31/2000 15:23	
Anthracene	ND	2.0	ug/L	01/31/2000 15:23	
Di-n-butyl phthalate	ND	5.0	ug/L	01/31/2000 15:23	
Fluoranthene	ND	2.0	ug/L	01/31/2000 15:23	
Pyrene	ND	2.0	ug/L	01/31/2000 15:23	
Butyl benzyl phthalate	ND	5.0	ug/L	01/31/2000 15:23	
3,3-Dichlorobenzidine	ND	5.0	ug/L	01/31/2000 15:23	
Benzo(a)anthracene	ND	2.0	ug/L	01/31/2000 15:23	
bis(2-Ethylhexyl) phthalate	ND	5.0	ug/L	01/31/2000 15:23	
Chrysene	ND	2.0	ug/L	01/31/2000 15:23	
Di-n-octyl phthalate	ND	5.0	ug/L	01/31/2000 15:23	
Benzo(b)fluoranthene	ND	2.0	ug/L	01/31/2000 15:23	
Benzo(k)fluoranthene	ND	2.0	ug/L	01/31/2000 15:23	
Benzo(a)pyrene	ND	2.0	ug/L	01/31/2000 15:23	
Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	01/31/2000 15:23	
Dibenzo(a,h)anthracene	ND	2.0	ug/L	01/31/2000 15:23	
Benzo(g,h,i)perylene	ND	2.0	ug/L	01/31/2000 15:23	
Benzoic acid	ND	10	ug/L	01/31/2000 15:23	
Surrogate(s)					
Nitrobenzene-d5	82.0	35-114	%	01/31/2000 15:23	
2-Fluorobiphenyl	89.6	43-116	%	01/31/2000 15:23	
p-Terphenyl-d14	82.4	33-141	%	01/31/2000 15:23	
Phenol-d5	30.0	10-110	%	01/31/2000 15:23	
2-Fluorophenol	49.4	25-100	%	01/31/2000 15:23	
2,4,6-Tribromophenol	93.0	10-123	%	01/31/2000 15:23	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-01-0434

To: **North State Environmental**
Attn: John Murphy

Test Method: 8270A
Prep Method: 3510/8270A

Batch QC Report

Semi-volatile Organic Compounds

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/01/31-01.11**

LCS: 2000/01/31-01.11-002 Extracted: 01/31/2000 Analyzed: 01/31/2000 17:34
LCSD: 2000/01/31-01.11-003 Extracted: 01/31/2000 Analyzed: 01/31/2000 16:50

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Phenol	13.9	16.8	60.0	60.0	23.2	28.0	18.8	12-89	35		
2-Chlorophenol	40.9	47.4	60.0	60.0	68.2	79.0	14.7	23-134	25		
1,4-Dichlorobenzene	21.6	25.4	30.0	30.0	72.0	84.7	16.2	36-97	30		
N-Nitroso-di-n-propylamin	22.7	26.9	30.0	30.0	75.7	89.7	16.9	10-130	34		
1,2,4-Trichlorobenzene	20.8	25.3	30.0	30.0	69.3	84.3	19.5	44-142	35		
4-Chloro-3-methylphenol	47.2	53.4	60.0	60.0	78.7	89.0	12.3	22-147	31		
Acenaphthene	25.0	29.0	30.0	30.0	83.3	96.7	14.9	56-118	30		
4-Nitrophenol	13.4	15.3	60.0	60.0	22.3	25.5	13.4	1-51	35		
2,4-Dinitrotoluene	23.3	26.4	30.0	30.0	77.7	88.0	12.4	39-139	35		
Pentachlorophenol	41.1	54.2	60.0	60.0	68.5	90.3	27.5	45-125	35		
Pyrene	26.4	29.3	30.0	30.0	88.0	97.7	10.4	52-115	35		
Surrogate(s)											
Nitrobenzene-d5	20.5	22.2	25	25	82.0	88.8		35-114			
2-Fluorobiphenyl	22.7	23.1	25	25	90.8	92.4		43-116			
p-Terphenyl-d14	24.4	23.3	25	25	97.6	93.2		33-141			
Phenol-d5	14.9	15.6	50	50	29.8	31.2		10-110			
2-Fluorophenol	24.0	25.1	50	50	48.0	50.2		25-100			
2,4,6-Tribromophenol	49.1	47.1	50	50	98.2	94.2		10-123			

North State Environmental Analytical Laboratory

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___of___

Client:	Report to:	Phone:	Turnaround Time
Mailing Address:	Billing to:	Fax:	
		PO# / Billing Reference:	Date:
			Sampler:

Project / Site Address:

Analysis Requested

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time								Comments / Hazards

Relinquished by:	Date:	Time:	Received by:	Lab Comments
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

APPENDIX D
PURGING AND SAMPLING
DOCUMENTATION

GROUNDWATER MONITORING

FOR

5930 College Avenue
Oakland, California
STID # 514

Job No. 7335
January 18, 2000

GROUNDWATER WELL MONITORING
FIELD DATA SHEET

Project Number 7335 Site Name 5530 College Date 1/26/10
Well Number MW1 (3MW1) Sampler VC

Notes, including field conditions, persons on site, methods used, weather
See MW3

Well Depth 15 ft. time of sample 1230 Depth to water 8.26 ft
Well Diameter 2 sheen or free product None

	Volume Height of water	Diameter 2 inch	4 inch	Volume	Number of well volumes	total gallons to purge
Column	7 ft.	(0.16)	0.65	1.1 gals.	5	5.5 gal

Quality of purge water

TIME	VOLUME PURGED	pH	CONDUCTIVITY	TEMP	NOTES
	1 gals	7.0	10.87	70.1	
	3 gals	7.1	10.84	70.8	
	5 gals	7.1	10.86	70.7	
	gals				
	gals				
	gals				
	gals				
	gals				

Additional comments

255 Shipley Street • San Francisco, Ca. 94107 • Tel.: 415/512-1555 • Fax: 415/512-0964
General Engineering Contractors License No. 646521

GROUNDWATER WELL MONITORING
FIELD DATA SHEET

Project Number MW3 Site Name 3330 College Date 1/26/10
Well Number 7335 Sampler Carvey

Notes, including field conditions, persons on site, methods used, weather
see MW2

Well Depth 15 ft. time of sample 1350 Depth to water 5.40 ft
Well Diameter 2 sheen or free product none

Volume Height of water		Diameter 2 inch	4 inch	Volume	Number of well volumes	total gallons to purge
Column	10 ft.	(0.16)	0.65	1.6 gals.	5	8.0 gal

Quality of purge water

TIME	VOLUME PURGED	pH	CONDUCTIVITY	TEMP	NOTES
	2 gals	7.3	10.47	70.6	
	4 gals	7.1	10.49	70.4	
	6 gals	6.9	10.48	70.4	
	8 gals	7.0	10.45		
	gals				
	gals				
	gals				
	gals				

Additional comments

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General Engineering Contractors License No. 616521

GROUNDWATER WELL MONITORING FIELD DATA SHEET

(in garage)

Project Number MW2 Site Name 5930 College Date 1/26/10
Well Number 7335 Sampler J Carver

Notes, including field conditions, persons on site, methods used, weather Clear
dry, hydac electronic water meter, disposable bailer

Well Depth 15 ft. time of sample 1130 Depth to water 7.85 ft
Well Diameter 2 sheen or free product none

Volume Height of water Column	Diameter 2 inch	4 inch	Volume	Number of well volumes	total gallons to purge
8 ft.	(0.16)	0.65	1.2 gals.	5	6 gal

Quality of purge water

TIME	VOLUME PURGED	pH	CONDUCTIVITY	TEMP	NOTES
	2 gals	7.1	11.63	70.4	
	4 gals	7.0	11.60	70.4	
	6 gals	7.0	11.6	70.3	
	gals				
	gals				
	gals				
	gals				
	gals				

Additional comments

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General Engineering Contractors License No. 616621