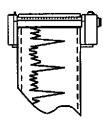
#### FIRST QUARTER 1999

# QUARTERLY GROUNDWATER MONITORING REPORT PROPOSAL FOR ADDITIONAL WELL POINTS GERMAN AUTOCRAFT 301 E. 14TH STREET, SAN LEANDRO, CALIFORNIA

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Report issued July 13, 1999

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#### I. INTRODUCTION

Environmental Testing & Management (ETM) has continued the quarterly groundwater monitoring program and related environmental activities completed during the calendar first quarter/March 1999 at German Autocraft located at 301 East 14th Street in the City of San Leandro, Alameda County, California (Figure 1). This report is submitted to the Alameda County Department of Environmental Health (ACDEH) on behalf of Mr. Seung Lee, owner of German Autocraft.

The purpose of this quarterly monitoring program is to evaluate groundwater quality in the area of five former underground fuel storage tanks (USTs) that were removed in 1990. Data accumulated from the program will be used to assess seasonal groundwater level fluctuations, changing groundwater quality conditions, and provide data which will support the development of corrective action plans at the site. The quarterly monitoring program presents a description of the groundwater monitoring activities, a compilation of groundwater quality and elevation data and a brief description of the progress of the development of corrective actions at the site.

#### II. BACKGROUND

German Autocraft is located at 301 E. 14th Street in San Leandro (see Location Map, Figure 1). The approximate locations of buildings, property boundaries, and adjacent streets are presented on the Site Map, Figure 2. For detailed descriptions of prior environmental activities at the subject site, please refer to the references section of this report for a listing of reports which have been submitted to the ACDEH.

#### III. WORK PERFORMED DURING FIRST OUARTER/MARCH 1999

Work included groundwater level gauging and sampling, data analysis, and report preparation.

Activity highlights during this period are as follows:

- March 13, 1999 ETM measured groundwater elevations in all wells of the monitoring program including the private well at 141 Farrelly Drive.
- March 22-23, 1999 ETM measured groundwater elevations and collected groundwater samples from monitoring wells MW-1, MW-2, and MW-3, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, MW-11, and MW-1A as shown on Figure 3.

#### IV. GROUNDWATER ELEVATION AND GRADIENT

Static groundwater level elevation data collected on March 13, 1999, indicated that over the area of the project, the elevation of the shallow groundwater surface ranged from 29.31 to 29.98 feet above mean sea level. The estimated groundwater flow direction was westerly (approximate gradient = 0.002 ft/ft).

Table 1 presents the recent groundwater elevation data and Figure 3 shows estimated groundwater flow direction as interpreted from the groundwater potentiometric elevation data. Table 2 presents historic groundwater elevation data.

The groundwater flow patterns observed this quarter are consistent with previous observations.

#### V. GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

On March 22-23, 1999, groundwater samples were collected from MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, MW-11, MW-1A following the groundwater sampling procedures presented in Appendix A. The groundwater samples were analyzed for TPHg, BTEX by EPA Methods 5030, 8015, and 8020 as tabulated on Table 3. Selected groundwater samples were also analyzed TBA, MTBE, DIPE, ETBE, and TAME using EPA Methods 8260 as tabulated on Table 4. All samples were tested by Entech Analytical Labs, Inc. of Sunnyvale, California. The laboratory report and chain-of-custody documents are included in Appendix B. The field sampling data sheets are presented in Appendix C. The quality assurance/quality control description is included in Appendix D. Historic groundwater chemical test data by EPA Methods 5030, 8015, and 8020 is tabulated in Table 5.

Selected BTEX chemical constituents continue to exceed their respective California Drinking Water Maximum Contaminant Levels (MCLs) or Federal Action Levels (AL) (Table 3). No gasoline oxygenate additive-related compounds were detected in two samples collected from MW-1A.

The sample from MW-1, located upgradient of the former gasoline tank area, contained: TPHg at 250,000 micrograms per liter ( $\mu$ g/L); benzene at 8,000  $\mu$ g/L which exceeds its MCL of 1  $\mu$ g/L; toluene at 43,000  $\mu$ g/L which exceeds its MCL of 150  $\mu$ g/L; ethyl benzene at 5,200  $\mu$ g/L which exceeds its MCL of 700  $\mu$ g/L, and; total xylenes at 27,000  $\mu$ g/L which exceeds its MCL of 1,750  $\mu$ g/L.

The sample from MW-2, located down gradient of the former gasoline tank area, contained 5,700  $\mu$ g/L of TPHg, 580  $\mu$ g/L of benzene, 9.4  $\mu$ g/L of toluene, 400  $\mu$ g/L of ethyl benzene, and 280  $\mu$ g/L of total xylenes.

Monitoring well MW-3, also located down gradient of the former gasoline tank area, contained 44,000  $\mu$ g/L of TPHg, 3,500  $\mu$ g/L of benzene, 1,000  $\mu$ g/L of toluene, 1,700  $\mu$ g/L of ethyl benzene, and 5,200  $\mu$ g/L of total xylenes.

Monitoring well MW-4, located in the former UST area, contained 89,000  $\mu$ g/L of TPHg, 5,900  $\mu$ g/L of benzene, 8,700  $\mu$ g/L of toluene, 2,000  $\mu$ g/L of ethyl benzene, and 9,200  $\mu$ g/L of total xylenes.

Monitoring well MW-5 contained 470  $\mu$ g/L of TPHg, 3.8  $\mu$ g/L of benzene, 0.51  $\mu$ g/L of toluene, 2.0  $\mu$ g/L of ethyl benzene, and <0.5  $\mu$ g/L of total xylenes.

Monitoring well MW-6 contained 390  $\mu$ g/L of TPHg, <0.5  $\mu$ g/L of benzene, <0.5  $\mu$ g/L of toluene, <0.5  $\mu$ g/L of ethyl benzene, and <0.5  $\mu$ g/L of total xylenes.

Monitoring well MW-8 contained 2,300  $\mu$ g/L of TPHg, 34  $\mu$ g/L of benzene, 1.1  $\mu$ g/L of toluene, 15  $\mu$ g/L of ethyl benzene, and 13  $\mu$ g/L of total xylenes.

Monitoring well MW-9 contained 27,000  $\mu$ g/L of TPHg, 35  $\mu$ g/L of benzene, <20  $\mu$ g/L of toluene, 600  $\mu$ g/L of ethyl benzene, and 920  $\mu$ g/L of total xylenes.

Monitoring well MW-10 contained 6,600  $\mu$ g/L of TPHg, 150  $\mu$ g/L of benzene, 33  $\mu$ g/L of toluene, 240  $\mu$ g/L of ethyl benzene, and 170  $\mu$ g/L of total xylenes.

Monitoring well MW-11 contained <50  $\mu$ g/L of TPHg, <0.5  $\mu$ g/L of benzene, <0.5  $\mu$ g/L of total xylenes.

#### VI. DISCUSSION AND CONCLUSIONS

Selected wells' various chemical constituents continue to exceed their respective California Drinking Water Maximum Contaminant Levels (MCLs) or Federal Action Levels (AL).

Available data, including data from the March 1999 monitoring events, indicate that groundwater flow patterns beneath the site are consistent with previous monitoring events for the project.

The current contaminant distribution shows the most elevated TPHG and benzene levels are near the source. The TPHG plume have moved west-northwesterly, as has the benzene plume. However, benzene concentrations decrease significantly beyond Garcia Avenue, and was just above detection limits at MW-1A and not detected at MW-10.

Mr. Mitch Ramirez, the owner of the 141 Farrelly Drive private agricultural well was interviewed and told ETM the following historical information regarding his property and well:

- 1) His house was constructed in 1949 and the well was already in place.
- 2) The agricultural well known as the "old Farrelly well" was used for cherry orchard irrigation.
- 3) He used the well three times last year under the impression that his well was "clean" and safe to use.

We sent Mr. Ramirez a letter explaining the status of this groundwater monitoring program. ETM explained that we did not recommend that he continue to use the well. ETM told Mr. Ramirez that although gasoline had not been detected in 1996 in his well, if he continued to pump his well it could be expected that gasoline could enter his well. Mr. Ramirez was informed that our study indicates that the groundwater gasoline plume configuration may have been influenced by pumping his well at 141 Farrelly Drive in the past.

#### VII. RECOMMENDATIONS

We recommend a reduction in sampling frequency according to the following schedule:

Quarterly:

MW-2, MW-3, MW-8, MW-9, MW-10

Semi-Annual:

MW-1A, MW-11, MW-6

Annual:

MW-1, MW-4, MW-5

We recommend that all of the monitoring wells continue to be gauged on a quarterly basis to comply with the ACDEH requirements and to assess trends in constituent concentrations over time. The data will be used to support development of a corrective action plan at the site.

Three additional wells are proposed to monitor the down-gradient edge of the plume and provide additional flow pattern data. The locations of the proposed wells are shown on Figure 2.

We recommend that a well survey be conducted.

#### VIII. LIMITATIONS

The data, information, interpretations and recommendations contained in this report are presented to meet current suggested regulatory requirements for determining groundwater quality on the site. Environmental Testing & Mgmt. is not responsible for laboratory errors or completeness of other consultants reports, and no warranty is made or implied therein.

The conclusions and professional opinions presented herein were developed by ETM in accordance with current regulatory guidance and the opinions expressed are subject to revisions in light of new information which may develop in the future.

#### IX. REFERENCES

- California Code of Regulations, Title 22, 66260.21, "Environmental Health Standards", 6/23/95.
- Code of Federal Regulations, 40 CFR 260, "Hazardous Waste Management System: General, 7/1/94.
- Chemist Enterprises, Soil and Water Investigation at German Autocraft, 301 East 14th Street, San Leandro, California, April 12, 1995
- The Environmental Construction Company, Preliminary Soil and Groundwater Contamination Assessment, German Autocraft, 301 East 14th Street, San Leandro, California, February 1991.
- The Environmental Construction Company, Underground Storage Tank Removals, German Autocraft, 301 East 14th Street, San Leandro, California, November 1990.
- Environmental Testing and Management, First Quarter 1999 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, July 13, 1999.
- Environmental Testing and Management, Fourth Quarter 1998 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, January 29, 1999.
- Environmental Testing and Management, Third Quarter 1998 Installation of Six Groundwater Monitoring Wells and Quarterly Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, November 16, 1998.
- Environmental Testing and Management, Second Quarter 1998 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, July 10, 1998.
- Environmental Testing and Management, First Quarter 1998 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, May 21, 1998.
- Environmental Testing and Management, Fourth Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, December 18, 1997.
- Environmental Testing and Management, Third Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, August 4, 1997.

- Environmental Testing and Management, Second Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, June 11, 1997.
- Environmental Testing and Management, First Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, March 24, 1997.
- Environmental Testing and Management, Fourth Quarter 1996 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, January 21, 1997.
- Environmental Testing and Management, Third Quarter 1996 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California, November 18, 1996.
- Environmental Testing and Management, Second Quarter 1996 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, August 8, 1996.
- Environmental Testing and Management, Continued Soil and Water and Offsite Investigation at German Autocraft, 301 East 14th Street, San Leandro, California, July 12, 1996.
- Environmental Testing and Management, First Quarter 1996 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, May 20, 1996.
- Environmental Testing and Management, Third Quarter 1995 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, October, 1995.
- Environmental Testing and Management, Fourth Quarter 1995 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, February, 1995.
- Woodward-Clyde Consultants, Hydrogeology of Central San Leandro and Remedial Investigation of Regional Groundwater Contamination, San Leandro Plume, San Leandro, California, Volume I, December 23, 1993.

### TABLE 1. FIRST QUARTER 1999 GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION DATA

		March 13	1999
WELL	CASING	Depth to	Groundwater
	ELEVATION <sup>1</sup>	Groundwater	Elevation
MW-1	49.49	19.51	29.98
MW-2	50.01	20.21	29.80
MW-3	49.32	19.49	29.83
MW-4	49.60	19.71	29.89
MW-5	49.57	19.64	29.93
MW-6	48.06	18.09	29.97
MW-8	49.35	19.77	29.58
MW-9	48.77	19.19	29.58
MW-10	49.92	20.61	29.31
MW-11	47.93	18.37	29.56
MW-1A	48.24	18.85	29.39
141 Farrelly	48.81	19.97	28.84

<sup>&</sup>lt;sup>1</sup>Elevations in feet above mean sea level.

#### TABLE 2. HISTORICAL GROUNDWATER ELEVATION DATA

Elevation in Feet Above Mean Sea Level

DATE	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-8	MW-9	MW-10	MW-11	MW-1A	141
												Farralley
12/21/90	19.15	-	-	-	-	-	-	-	-	-	-	-
2/10/95	29.59	29.62	29.57	-	-	-	-	-	_		-	-
7/7/95	26.63	26.47	26.50	-	-	-	<del>-</del>	-	-	-		
8/10/95	25.58	25.40	25.44	-	-	-	-	-	<u>-</u>	-	_	
9/11/95	24.68	24.49	24.54	-	-	-	ŕ	-	-	-	-	<del>-</del>
10/2/95	24.12	23.94	24.00	<u>-</u>	,	-	-	_	-	•	-	<del>-</del>
11/7/95	23.36	23.13	23.21	-	1	-	-		-	-	_	-
12/8/95	22.77	22.55	22.62	-	-	-	-	-	-	<u>-</u>	<u>-</u>	-
1/12/96	24.35	24.20	24.25	-	_	-	-	-		-	-	-
2/12/96	29.04	29.03	29.00	-		-	1	-	-	-	-	
3/12/96	31.75	31.60	31.67	-	ı	-		_	-	_		_
4/13/96	29.43	29.25	29.26	-	-	-	-	_	-	-	_	_
5/14/96	27.89	27.68	27.71	-	-	-	-	-	-	-	-	_
6/20/96	27.19	26.97	27.00	-	-	-	_	-	-	-	-	-

DATE	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-8	MW-9	MW-10	MW-11	MW-1A	141
												Farralley
7/26/96	25.95	25.74	25.76	-	-	-	-	-	-		-	-
8/19/96	25.16	24.97	25.01	-		-	-	-	-	-	-	-
9/17/96	24.44	24.22	24.27	_	-	-	-	-	_	-	-	-
10/21/96	23.63	23.43	23.48	-	-	-	-	<del>-</del>	-	-	-	-
11/27/96	24.28	24.09	24.13	_	-	-	-		-	-	-	- -
12/27/96	28.23	28.03	28.11	-	-	-	-	-	-	-	-	-
1/28/97	33.02	32.71	32.78	· -	-	-	-	-	-	-	_	. <u>-</u>
4/25/97	27.14	26.88	26.94	-	-	-	<u>.</u>	-	-	-		-
7/17 <b>/</b> 97	24.55	24.31	24.37	-	-	-	-	-	-	-	-	**
10/21/97	22.85	22.69	22.73	•	-	-	-	-	-	-	_	-
3/10/98	34.35	34.20	34.13	-	-	-	-	-	-		-	-
6/6/98	30.69	30.41	30.47	-	1	-	•	-	•	-	-	-
9/30/98	25.95	25.68	25.75	-	,	T.	1	-	-	_	_	
12/30/98	25.13	24.93	24.99	25.05	25.06	25.14	24.75	24.79	24.78	24.78	24.64	-
3/13/99	29.98	29.80	29.83	29.89	29.93	29.97	29.58	29.58	29.31	29.56	29.39	28.84

#### TABLE 3. GROUNDWATER CHEMICAL TEST RESULTS (EPA METHOD 8015/8020)

Locations: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, MW-11, MW-

1**A** 

Date Sampled: March 22-23, 1999 Units: μg/L

WELL	ТРНg	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
MW-1	250,000	8,000	43,000	5,200	27,000
MW-2	5,700	580	9.4	400	280
MW-3	44,000	3,500	1,000	1,700	5,200
MW-4	89,000	5,900	8,700	2,000	9,200
MW-5	470	3.8	0.51	2.0	<0.5
MW-6	390	<0.5	<0.5	<0.5	<0.5
MW-8	2,300	34	1.1	15	13
MW-9	27,000	35	<20	600	920
MW-10	6,600	150	. 33	240	170
MW-11	<50	<0.5	<0.5	<0.5	<0.5
MW-1A	1,800	4.0	<0.5	3.0	7.5
MW-1A <sup>2</sup>	2,200	10	0.52	3.1	7.1
MCL/AL <sup>3</sup>		1	150	700	1,750

 $<sup>^2</sup>A$  blind duplicate sample of MW-1A was labeled "MW-12" and submitted as a blind duplicate. No quality control/quality assurance problems are apparent.

<sup>&</sup>lt;sup>3</sup>Maximum Contaminant Level or Action Level as established by the State of California, Division of Drinking Water and Environmental Management, Department of Health Services "Summary, Maximum Contaminant and Action Levels" November, 1994.

#### TABLE 4. GROUNDWATER CHEMICAL TEST RESULTS (EPA METHOD 8260)

Location: MW-1A

Date Sampled: March 23, 1999 Units: μg/L

WELL	TBA	мтве	DIPE	EHBE	ТАМЕ
MW-1A	<100	<25	<25	<25	<25
MW-1A <sup>4</sup>	<20	<5	<5	<5	<5

 $<sup>^4</sup>$ A blind duplicate sample of MW-1A was labeled "MW-12" and submitted as a blind duplicate. No quality control/quality assurance problems are apparent.

### TABLE 5. HISTORIC GROUNDWATER CHEMICAL TEST RESULTS (EPA METHOD 8015/8020)

Locations: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, MW-11,

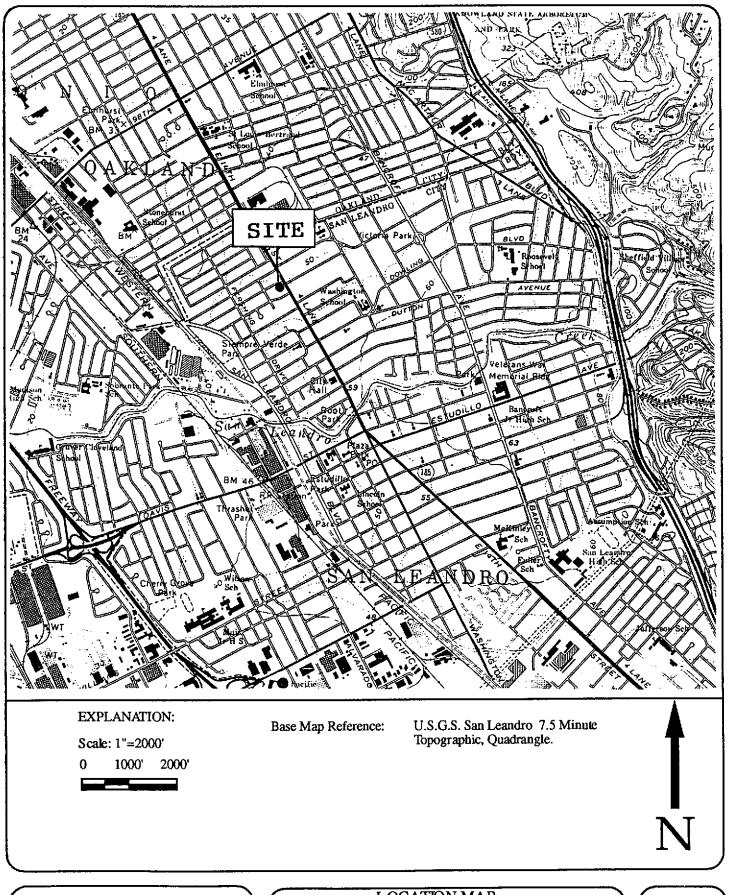
MW-1A. Units: µg/L

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL. BENZENE	XYLENES
MW-1	12/31/90	51,000	2,200	1,200	<0.5	760
	1/6/95	110,000	13,000	15,000	4,800	13,000
	1/6/95	580,000	29,000	41,000	17,000	43,000
	7/6/95	49,000	8,000	17,000	1,900	9,700
	7/6/95	47,000	4,800	9,500	930	5,000
	10/2/95	120,000	16,000	36,000	3,300	17,000
	10/2/95	160,000	20,000	47,000	5,000	23,000
	1/12/96	1,100,000	11,000	18,000	15,000	51,000
	1/12/96	98,000	2,100	4,600	2,500	10,000
	4/13/96	53,000	1,300	2,900	2,100	10,000
	4/13/96	58,000	820	3,600	2,800	12,000
	7/26/96	91,000	2,900	7,200	2,900	14,000
	7/26/96	67,000	2,300	5,500	2,500	11,000
	10/21/96	210,000	4,800	17,000	2,300	15,000
	10/21/96	210,000	5,400	18,000	2,600	11,000
	1/28/97	120,000	5,600	15,000	2,100	11,000
	1/28/97	130,000	5,500	15,000	2,300	12,000

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
MW-1	4/25/97	180,000	6,900	20,000	2,600	13,000
	4/25/97	170,000	6,500	20,000	2,500	13,000
	7/17/97	220,000	8,300	41,000	2,700	16,000
	10/21/97	240,000	9,400	33,000	3,300	22,000
	3/10/98	120,000	11,000	46,000	3,700	21,000
	6/6/98	110,000	7,600	32,000	4,800	23,000
	9/30/98	140,000	5,800	29,000	3,500	18,000
	12/30/98	78,000	5,200	24,000	3,200	19,000
	3/23/99	250,000	8,000	43,000	5,200	27,000
MW-2	1/6/95	980,000	9,400	5,600	19,000	42,000
	7/6/95	71,000	5,300	1,800	6,100	9,000
	10/2/95	40,000	2,900	200	2,800	3,600
	1/12/96	260,000	2,600	2,200	6,300	7,800
	4/13/96	30,000	1,900	370	2,300	2,400
	7/26/96	180,000	1,400	640	2,100	5,000
!	10/21/96	62,000	2,100	<0.5	2,100	2,700
	1/28/97	46,000	1,500	94	1,800	2,000
	4/25/97	23,000	790	26	820	730
	7/17/97	95,000	2,200	<0.5	3,100	4,300
	10/21/97	31,000	2,000	<0.5	2,100	1,900
	3/10/98	19,000	730	44	820	1,000
	6/6/98	16,000	670	1,100	510	1,200
	9/30/98	24,000	600	77	680	580

WELL	DATE	ТРНд	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
MW-2	12/30/98	9,300	510	96	450	480
	3/23/99	5,700	580	9.4	400	280
MW-3	1/6/95	740,000	11,000	2,300	8,300	28,000
	7/6/95	86,000	12,000	8,600	4,900	19,000
	10/2/95	100,000	15,000	11,000	6,000	20,000
	1/12/96	84,000	6,500	4,100	3,200	12,000
	4/13/96	48,000	7,600	3,600	2,800	9,400
	7/26/96	62,000	6,400	3,100	3,000	11,000
	10/21/96	110,000	5,400	2,400	2,500	9,800
	1/28/97	130,000	5,500	15,000	2,300	12,000
	4/25/97	180,000	6,900	20,000	2,600	13,000
	7/17/97	69,000	5,100	1,100	1,800	8,600
	10/21/97	58,000	4,300	1,300	2,100	8,000
	3/10/98	25,000	3,000	1,300	1,100	3,700
	6/6/98	52,000	4,400	1,900	2,300	6,900
	9/30/98	42,000	4,300	1,400	1,800	6,600
	12/30/98	34,000	4,200	770	2,300	9,000
	3/23/99	44,000	3,500	1000	1,700	5,200
MW-4	12/30/98	12,000	1,200	1,100	290	1,400
	3/23/99	89,000	5,900	8,700	2,000	9,200
MW-5	12/30/98	170	1.1	<0.5	<0.5	0.83
	3/22/99	470	3.8	0.51	2.0	<0.5

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
MW-6	12/30/98	400	1.0	<0.5	<0.5	4.8
	3/22/99	390	<0.5	<0.5	<0.5	<0.5
MW-8	12/30/98	2,200	70	0.94	26	15
	3/23/99	2,300	34	1.1	15	13
MW-9	12/30/98	25,000	23	<10	180	620
	3/23/99	27,000	35	<20	600	920
MW-10	12/30/98	6,900	130	19	140	210
	3/23/99	6,600	150	33	240	170
MW-11	12/30/98	80	<0.5	<0.5	0.93	1.6
	3/23/99	<50	<0.5	<0.5	<0.5	<0.5
MW-1A	5/30/97	12,000	18	8.7	90	540
	12/30/98	51	<0.5	<0.5	<0.5	<0.5
	3/23/99	1,800	4.0	<0.5	3.0	7.5
	3/23/99	2,200	10	0.52	3.1	7.1
141	4/6/96	<50	<0.5	<0.5	<0.5	<0.5
Farrelly						

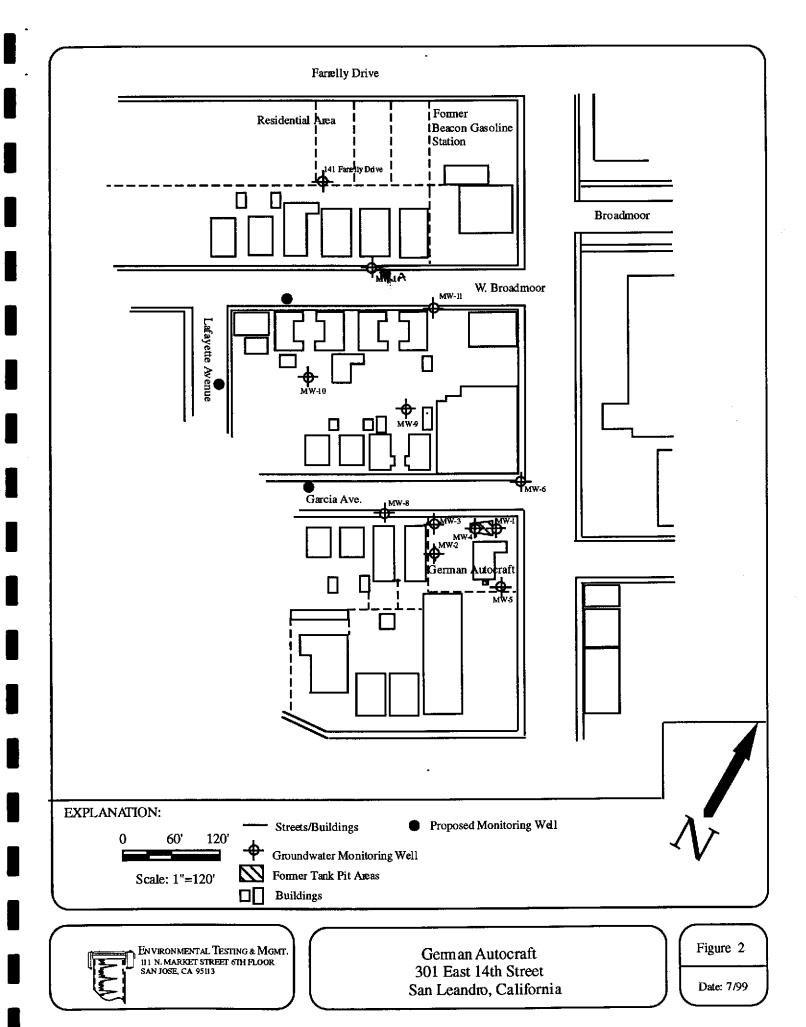


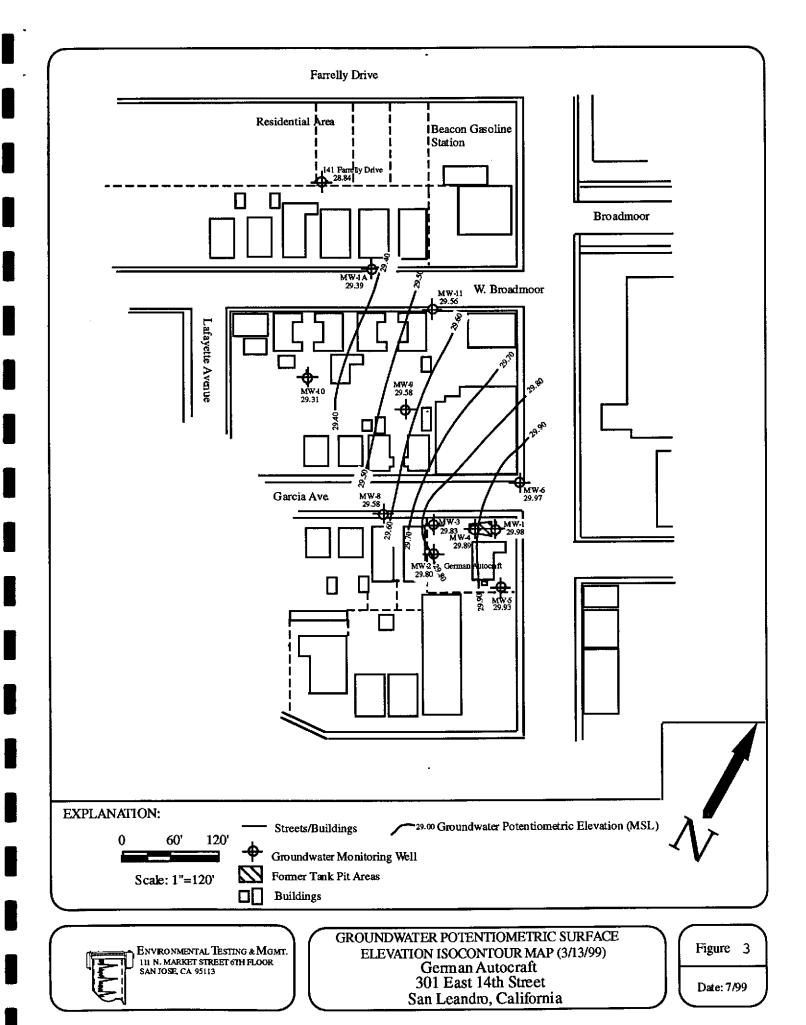


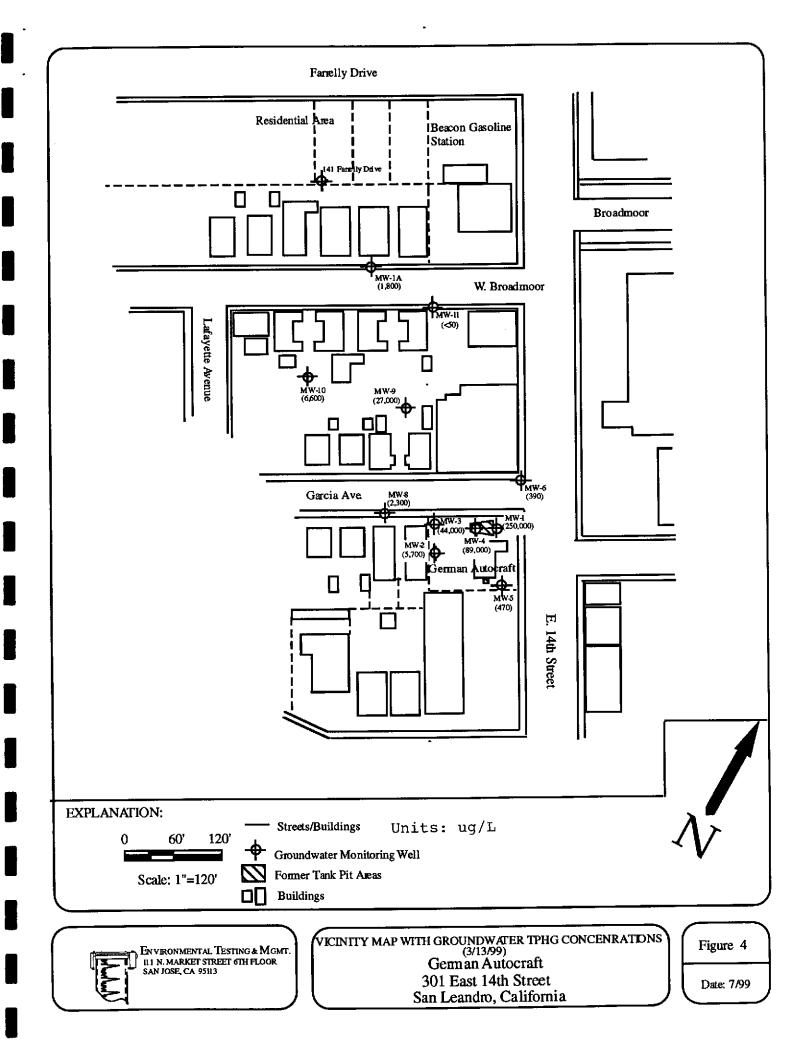
ENVIRONMENTAL TESTING & MGMT 111 N. MARKET ST. SUITE 600 SAN JOSE, CALFORNIA 95113 LOCATION MAP German Autocraft 301 East 14th Street San Leandro, California

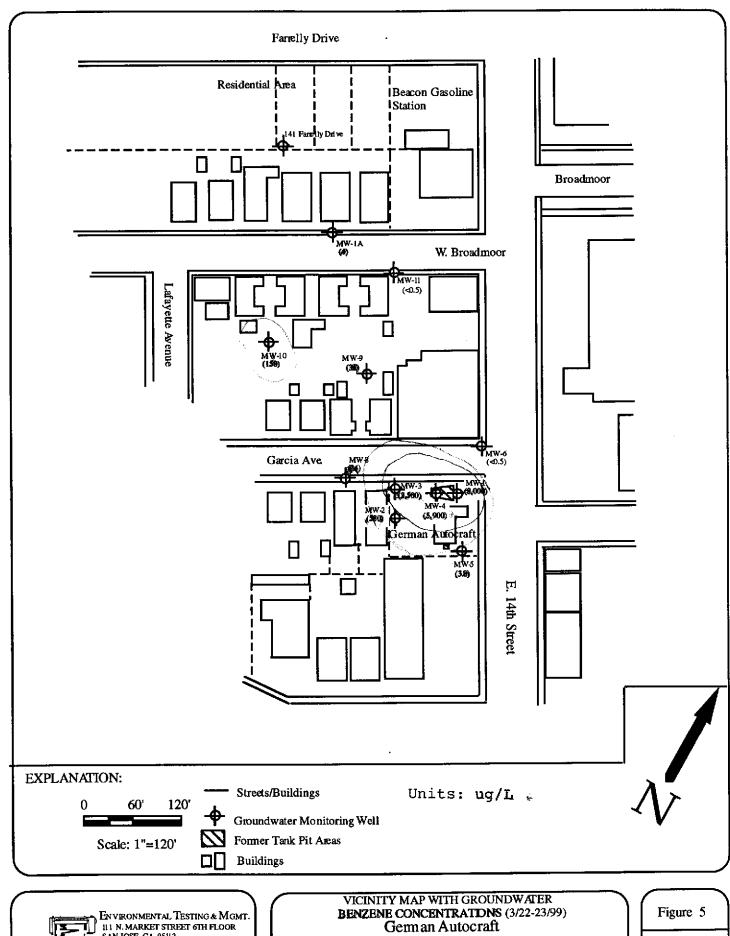
Figure 1

Project No. 94-52 Date: 3/97









SAN JOSE, CA 95113

301 East 14th Street

San Leandro, California

Date: 7/99

#### APPENDIX A: FIELD SAMPLING AND GAUGING PROCEDURES

#### **GROUNDWATER LEVEL MEASURING AND SAMPLING:**

Sampling procedures commenced with measuring static water levels in monitoring wells using an electronic water level indicator accurate to 0.01 inch. Groundwater samples were collected using Teflon<sup>TM</sup> or stainless steel bailers. The bailers were cleaned prior to lowering into the groundwater by washing with Liquinox or laboratory grade detergent, rinsing with tap water, and drying. Floating product thickness was measured by gently lowering a bailer or preferably an interface sampler into the well casing. The liquid level in the sampler was allowed to equilibrate with the liquid level in the well. After raising the sampler, the thickness of floating product, if present, was measured in the transparent sampler with a ruler or noting the presence of sheen and odor. The wells were then purged a minimum of four well volumes or until the parameters of temperature, conductance, and pH stabilized.

Groundwater samples were collected by gently pouring from the bailer into a 40-milliliter vial until a positive meniscus formed at the top of the vial, each vial was capped, and visually inspected to make sure no bubbles were present. Sample containers are labeled for sampling point reference and chilled on ice immediately after collection. Chain-of-custody documentation was maintained until the samples were received by the laboratory.

Environmental Testing & Management 111 N. Market Street, Suite 600 San Jose, CA 95113

Attn: Tom Price

Date: 4/6/99

Date Received: 3/24/99

Project: GA

PO #:

Sampled By: Client

#### **Certified Analytical Report**

Water Sample Analysis:

Sample ID	MW-12			MW-1A				
Sample Date	3/23/99			3/23/99				
Sample Time								
Lab #	G7692			G7693			 	
	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:								
Analysis Date	4/1/99			4/5/99				
TPH-Gas	2,200	1.0	50	1,800	1.0	50	50	8015M
Benzene	10	1.0	0.50	4.0	1.0	0.50	0.50	8020
Toluene	0.52	1.0	0.50	ND	1.0	0.50	0.50	8020
Ethyl Benzene	3.1	1.0	0.50	3.0	1.0	0.50	 0.50	8020
Xylenes (total)	7.1	1.0	0.50	7.5	1.0	0.50	0.50	8020
Analysis Date	3/31/99			4/5/99				
tert-Butanol	ND 1	5.0	100	ND	1.0	20	20	8260
МТВЕ	ND 1	5.0	25	ND	1.0	5.0	5.0	8260
Diisopropyl ether	ND 1	5.0	25	ND	1.0	5.0	5.0	8260
Ethyl-tert-butyl ether	ND 1	5.0	25	ND	1.0	5.0	5.0	8260
tert-Amylmethyl ether	ND 1	5.0	25	ND	1.0	5.0	5.0	8260

DF=Dilution Factor

ND= None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

- 1. Sample diluted due to high concentrations of non-target hydrocarbons
- 2. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

**Environmental Testing & Management** 

111 N. Market Street, Suite 600

San Jose, CA 95113

Attn: Tom Price

Date: 4/6/99

Date Received: 3/24/99

Project: GA

PO #:

Sampled By: Client

#### **Certified Analytical Report**

Water Sample Analysis:

Sample ID	MW-10			MW-11				
Sample Date	3/23/99			3/23/99				
Sample Time								
Lab#	G7690			G7691				
	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:								
Analysis Date	4/1/99			4/1/99				
TPH-Gas	6,600	20	1000	ND	1.0	50	50	8015M
Benzene	150	20	10	ND	1.0	0.50	0.50	8020
Toluene	33	20	10	ND	1.0	0.50	0.50	8020
Ethyl Benzene	240	20	10	ND	1.0	0.50	0.50	8020
Xylenes (total)	170	20	10	ND	1.0	0.50	0.50	8020

DF=Dilution Factor

ND= None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

<sup>·</sup> Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

**Environmental Testing & Management** 

111 N. Market Street, Suite 600

San Jose, CA 95113

**Attn: Tom Price** 

Date: 4/6/99

Date Received: 3/24/99

Project: GA

PO #:

Sampled By: Client

#### Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	3/23/99	3/23/99			3/23/99						
Sample Time											
Lab #	G7694			G7695			G7696				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	4/1/99			4/5/99			4/1/99				
TPH-Gas	250,000	200	10000	5,700	4.0	200	44,000	50	2500	50	8015M
Benzene	8,000	200	100	580	4.0	2.0	3,500	50	25	0.50	8020
Toluene	43,000	200	100	9.4	4.0	2.0	1,000	50	25	0.50	8020
Ethyl Benzene	5,200	200	100	400	4.0	2.0	1,700	50	25	0.50	8020
Xylenes (total)	27,000	200	100	280	4.0	2.0	5,200	50	25	0.50	8020

DF=Dilution Factor

ND= None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

<sup>·</sup> Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

**Environmental Testing & Management** 

111 N. Market Street, Suite 600

San Jose, CA 95113

Attn: Tom Price

Date: 4/6/99

Date Received: 3/24/99

Project: GA

PO #:

Sampled By: Client

#### Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	3/23/99			3/22/99			3/22/99			-	
Sample Time											
Lab #	G7697		•	G7698			G7699				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	4/1/99			4/1/99			4/1/99				
TPH-Gas	89,000	200	10000	470	1.0	50	390 <sup>x</sup>	1.0	50	50	8015M
Benzene	5,900	200	100	3.8	1.0	0.50	ND	1.0	0.50	0.50	8020
Toluene	8,700	200	100	0.51	1.0	0.50	ND	1.0	0.50	0.50	8020
Ethyl Benzene	2,000	200	100	2.0	1.0	0.50	ND	1.0	0.50	0.50	8020
Xylenes (total)	9,200	200	100	ND	1.0	0.50	ND	1.0	0.50	0.50	8020

DF=Dilution Factor

ND= None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

<sup>·</sup> Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #1-2346)

Environmental Testing & Management

111 N. Market Street, Suite 600

San Jose, CA 95113

**Attn: Tom Price** 

Date: 4/6/99

Date Received: 3/24/99

Project: GA

PO #:

Sampled By: Client

#### **Certified Analytical Report**

Water Sample Analysis:

Sample ID	MW-8			MW-9					
Sample Date	3/23/99			3/23/99	3/23/99				
Sample Time									
Lab #	G7700			G7701					
	Result	DF	DLR	Result	DF	DLR		PQL	Method
Results in µg/Liter:									
Analysis Date	4/1/99			4/5/99					
TPH-Gas	2,300	1.0	50	27,000	40	2000		50	8015M
Benzene	34	1.0	0.50	35	40	20		0.50	8020
Toluene	1.1	1.0	0.50	ND	40	20		0.50	8020
Ethyl Benzene	15	1.0	0.50	600	40	20		0.50	8020
Xylenes (total)	13	1.0	0.50	920	40	20		0.50	8020

DF=Dilution Factor

ND= None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

#### STANDARD LAB QUALIFIERS July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
В	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

#### QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4990401

Date Analyzed: 04/01/99

Matrix: Water

Quality Control Sample: Blank Spike

Units: µg/L

PARAMETER	Method #	MB μg/L	SΑ μg/L	SR μg/L	SP μg/L	SP % R	SPD μg/L	SPD %R	RPD	QC RPD	LIMITS %R
Benzene	8020	< 0.50	40	ND	39	98	39	98	0.7	25	83-109
Toluene	8020	<0.50	40	ND	39	98	39	97	1.4	25	65-112
Ethyl Benzene	8020	< 0.50	40	ND	40	99	39	98	1.3	25	83-109
Xylenes	8020	< 0.50	120	ND	117	98	116	96	1	25	83-110
Gasoline	8015	<50.0	500	ND	461	92	487	97	5.5	25	73-126

Note: LCS and LCSD results reported for the following Parameters:

All

#### **Definition of Terms:**

na: Not Analyzed in QC batch

MB: Method Blank SA: Spike Added SR: Sample Result

RPD(%): Duplicate Analysis - Relative Percent Difference

SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery

NC: Not Calculated

#### **QUALITY CONTROL RESULTS SUMMARY**

Volatile Organic Compounds

QC Batch #: WGCMS990330

Matrix: Water Units: μg/L

Date analyzed:

03/31/99

Spiked Sample:

Blank Spike

PARAMETER	Method#	SA μg/L	SR ug/I	SP	SP	SPD	SPD	RPD	• • •	LIMITS
		μg/c	μg/L	μg/L	%R	μg/L	%R		RPD	%R
1,1- Dichloroethene	8240/8260	25	ND	21	84	21	86	1.4	25	50-150
Methyl-tert-butyl ether	8240/8260	25	ND	26	106	27	108	2.6	25	50-150
Benzene	8240/8260	25	ND	23	92	24	94	2.2	25	50-150
Trichloroethene	8240/8260	25	ND	24	97	25	98	1.2	25	50-150
Toluene	8240/8260	25	ND	27	107	27	106	0.7	25	50-150
Chlorobenzene	8240/8260	25	ND	27	110	28	111	1.4	25	50-150
										,
							ļ			

#### Definition of Terms:

na: Not Analyzed in QC batch

SA: Spike Added SR: Sample Result

RPD(%): Duplicate Analysis - Relative Percent Difference

SP Spike Result

SP (%R) Spike % Recovery

SPD: Spike Duplicate Result

SPD (%R) Spike Duplicate % Recovery

NC: Not Calculated

### Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

#### Chain of Custody/Analysis Work Order

Purchase Order #:

Sampler/Company:

Project ID: GA.

LAB USE ONLY

Samples arrived chilled and intact:

Client: Env. Testing & MgmT

Address: 111 N. Market St 6 F1+
Sam Jose CA 95 "3

Telep Date Re	ohone #: eceived:	Jun Price 403) 939-	929		ecial Instruc	ctions/Co	omments			Yes Notes:		No		
			Sample 1	nformation						Kequeste	ed Analys	sis		
Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPH3/ BTXE						
47694	MW-1	G	W	3/23/27	~	chili/ H4	doml vals							
	4-mm			3/23/79				اسا						
G7696	HW-3			3/23/99	_			l l						
67697	riw-4			3/23/99				\ <u>\</u>						:
	MW-5			3/22/49				V						
G7699	nw-6			3/22/99	دبو			i						
G7700	MW-8			3/23/99	<b>,</b>			<i>'</i>					-,	
67701	MW-9	<b>V</b>	J	3/23/99	_		<i>y</i>	V						
Relinq. By:	1000x	ince_		Received	Ву: (1)				Date	199	1	me 1230	pm.	
	Jongs D			Received	·	64,	njhaz	)	3/24 Date 03/2	4/99	Tii	1230 ne 1:30 ne	سراه	
Relinq/By:	, , ,			Received	By:				Date /		Ti	me		

### Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

#### Chain of Custody/Analysis Work Order

Purchase Order #:

Sampler/Company:

Project ID: GA

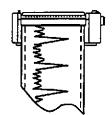
Telephone #:

LAB USE ONLY

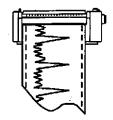
Samples arrived chilled and intact:

Client: Env. Testing & Mgmt Address: 111N. Market St 6 Flv Squ Jose CA 95113

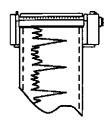
Telep Date Re	Contact: Tohone #: 9 eceived: Around:S	380939		Special Instructions/Comments						Yes No Notes:				
			Sample I	Information				~ ×	60 Igantes	Requ	iested A	Analysis		
Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPII3/ BIEX	326 0XD					
	MW-10	G <sub>1</sub>	W	3/23/17	_		Homivors	-						
74690 47691	MW-11							/						
G7692								1	اسن_					
G7693	MW-13	1	J			1		~						
Reling, By:	<i>\lambda</i> -	$\bigcirc$		Received	By				Date			Time		
Relinq. By:	JOW	(Jan	2	Received*		_ W	gtiazi		Date Date Date Date	24/5	5 <u> </u>	Time Time	930 PF 1:30p	η. ~



Date: $\frac{3}{3}/\frac{39}{9}$	Project Name	:_GA ·			
Project No.: 19.5	Well No./Des	cription: <u>M</u>	N-1		
Depth of Well: 37.3	•	ne: <u>13</u> .0			
Depth to Water:/ 9,5	4 We	ell Volumes:		•	
Casing Diameter: 2" _4"	Actual Volum	ne Purged:			
Calculations:	1 X				
2" - * 0.1632 4" - * 0.653	1 3 8				
Purge Method: Bailer	Displacement Pum	pImpinger	/Vacuum		
Sample Method: Bailer	Other Spe	ecify:			
Sheen: No Yes, De	scribe				
Odor: No Yes, De	scribe <u>#Stv&amp;N</u>	e, HC		*****	
Field Measurements:		)			
Time <u>Volume</u>	<u> H</u> q	Temp.	E.C.	Color	
1122 3.0	7.3	<u>61</u>	0.363	MYAY -	
1129 6.0	6.9	64	p.9E3	71	
1144 70	7.0	(4)	0. 1£3	<u> </u>	
Remarks:				······································	
Sampler:					



Date: $\frac{2}{2}$	199	Project Name: _	(. A		
Project No.:		Well No./Descrip	ption: <u>MtV</u>	-5	<del>,</del>
Depth of Well:	30.10	1 Well Volume:	12		
Depth to Water:	19.64	4 Well	Volumes:	<del>-</del>	
Casing Diameter:	_2" _4"	Actual Volume I	Purged:		
Calculations:		12			
2" - * 0.1632 4" - * 0.653					 
Purge Method:	_BailerDisp	lacement Pump	Impinger/Va	cuum	
Sample Method:	Bailer	Other Specia	fy:		
Sheen: V No	Yes, Describ	e			
Odor:No	∠Yes, Describ	e V 1/17	frint	HC.	
Field Measureme		•	}		
<u>Time</u>	<u>Volume</u>	На	Temp.	E.C.	Color
11/14	7.0	1.0	<u>t1</u>	1.0£3	bToium
1170	4.0	7.0	<u>7 0                                   </u>	1.0£3	<u> </u>
1125	<u>k.0</u>	7.1	69_	1. 5 E 3	
					<u> </u>
Remarks:		<u> </u>			
					<del></del>



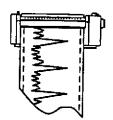
Date: 3/25	2/39	Project Name: _	GA.		
Project No.:		Well No./Descri	ption: <u>} 1</u>	W-6	<del></del>
Depth of Well: _	33.8	1 Well Volume:	J		
Depth to Water:	18.07	4 Well	Volumes:	_	
Casing Diameter	: <u>X</u> 2" _4"	Actual Volume l	Purged:		
Calculations:		1315			
2" - * 0.1632 4" - * 0.653		16			
Purge Method:	∑BailerDis	placement Pump	Impinger/Va	acuum	
Sample Method:	_XBailer	Other Speci	fy:		
Sheen: 🔀 No	Yes, Describ	e			
Odor: No	Yes, Describ	e			,
Field Measureme	ents:				
Time	Volume	pН	Temp.	E.C.	Color
1135	2.5	<u>7.1</u>		0.7163	
1140	<u>5.0</u>	7.1	66	0.79£3	
1145	7.5	7.1	<u>67</u>	0.78£3	
Remarks:		<del></del>			
		<del></del> .			·
Sampler:		· 			



Sampler:

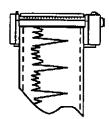
#### Environmental Testing & Mgmt. 111 n. market st., suite 600 san Jose, california 95113 408.938.0939 fax: 408.938.3929

Date: 3/2	13/99	Project Name:	GA	<del>-</del>	
Project No.:	/	Well No./Desc	ription: <i>h</i>	1W~8	
Depth of Well:	29.5	1 Well Volume	:12		
Depth to Water:	19.77	4 Wel	l Volumes:	_	
Casing Diameter	.\_2" _4"	Actual Volume	Purged:		
Calculations:	'\	10			
2" - * 0.1632 4" - * 0.653					<del> </del>
Purge Method: _	BailerDi	splacement Pump	Impinger/V	acuum	
Sample Method:	Bailer	Other Spec	cify:	<del> </del>	
Sheen: No	Yes, Descr	ibe			
Odor:No	Yes, Descr	ibe			_
Field Measureme	ents:				
Time	Volume	Нq	Temp.	E.C.	Color
1726	3.0	7.3	67	0.7E3	brown gray
1.2-31	40	1.0	67.5	0.7E3	1, 7,
	<del></del>	<del></del>	-		
					<del></del>
Remarks:			<del></del>		
			<del> </del>		
	· · · · · · · · · · · · · · · · · · ·		<u> </u>	<u>.                                    </u>	•
					-



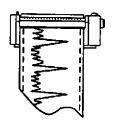
Sampler: \_\_\_

Date: $\frac{3}{3} \frac{3}{3} \frac{3}{9} \frac{9}{9}$	Project Name: G, A,
Project No.:	Well No./Description: MIN-9
Depth of Well: 34.	1 Well Volume: $\wedge 2$
Depth to Water: 19	4 Well Volumes:
Casing Diameter: 2"	
Calculations:	3 15
2" - * 0.1632 4" - * 0.653	15
Purge Method: Baile	erDisplacement PumpImpinger/Vacuum
Sample Method: XBai	
Sheen: No Y	es, Describe Kainbow/Waxy emulsion
Odor: No YY	es, Describe Strong H
Field Measurements:	
Time Volum	e pH Temp. E.C. Color
1850 8.5	69 78 DRES GVAY
1005 50	7. 7. N.7E3 J7
120 J.	5 0780 0
Remarks:	
* ,	

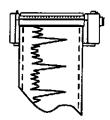


Sampler: \_

Date:3/3	3/99		: GA		
Project No.:	<i>(</i>	Well No./Des	cription:	1W-11	
Depth of Well:	34.30	1 Well Volum	ne: <u>^2.5</u>		
Depth to Water:	: 18.37	4 We	ell Volumes:		
Casing Diamete	er:2"4"	Actual Volum	ne Purged:	· •	
Calculations:		3/6		. **	
2" - * 0.1632 4" - * 0.653		256			
Purge Method:	X_BailerD	isplacement Pum	pImpinger	/Vacuum	
Sample Method	: X_Bailer	Other Spe	ecify:		
Sheen: X No	Yes, Desc	ribe	<del> </del>		
		ribe			<del></del>
Field Measurem					
Time	Volume	рН	Temp.	E.C.	Color
945	3.5	7.0	62	0.6E3	61 Swm
950			6/	0.6E3	
255	7.5	6.8	63	0.6E3	
				<del></del>	
Remarks:					



Date: 3/23/	<u>55</u>	Project Name: _	GA.		
Project No.:		Well No./Descri	iption: <u> </u>	V-1A	
Depth of Well: 33	45			•`	
Depth to Water: 18	<u> کع ۲۰</u>	4 Well	Volumes:	_	
Casing Diameter:2	2"4"	Actual Volume	Purged:	-	
Calculations:		NIS.			
2" - * 0.1632 4" - * 0.653					
Purge Method: XBa	ilerDisp	lacement Pump	Impinger/V	acuum	
Sample Method: LB	Jailer	Other Speci	fy:		
Sheen: XNO X	Yes, Describe	, *5710+c)	عورم ععد	r in light	t then disappear
Odor: No 💢	Yes, Describe	+ fair	He/gei	Hing strang	then disappear
Field Measurements:		,			
<u>Time</u> <u>Volu</u>	ıme	<u>рН</u>	Temp.	E.C.	<u>Color</u>
1015 2		7.0	59	0.5E3	brown
1820 5	<u> </u>	7.2	61	b. 6 E3	
		7.2		0.5E3	
Remarks:		<del></del> -		· · · · · · · · · · · · · · · · · · ·	
<u> </u>					
Sampler					



Date: $\frac{3/13}{}$	3/99	Project Name:	GA.		
Project No.:	<del></del>	Well No./Descr	ription:14_	1 Farrelly	
Depth of Well:	41.9	1 Weil Volume		/	
Depth to Water:	19.97	4 Well	l Volumes:		
Casing Diameter		Actual Volume	Purged:	<del>-</del>	
Calculations: -	<u>~5*</u>				•
2" - * 0.1632 4" - * 0.653					
Purge Method:	_BailerDis	splacement Pump	Impinger/\	/acuum	
Sample Method:	Bailer	Other Spec	ify:		
Sheen: No	Yes, Descri	be		<u> </u>	<del></del>
Odor No	Yes, Descri	be			
			<del></del>		_
Field Measureme					_
		На	Temp.	E.C.	Color
Field Measureme	nts:		٠.		Color
Field Measureme	nts:		٠.		Color
Field Measureme	nts:		٠.		Color
Field Measureme	nts:		٠.		Color
Field Measureme	nts:		٠.		Color
Field Measureme	volume	pH	٠.		Color
Field Measureme Time	volume	pH	٠.		Color
Field Measureme Time	volume	pH	٠.		Color

#### APPENDIX D: OUALITY ASSURANCE/OUALITY CONTROL PROGRAM

The quality assurance/quality control measures used for groundwater sampling conducted on March 22-23, 1999 included the following:

- Groundwater samples were collected in triplicate 40 milliliter vials.
- A sample collected from MW-1A was labeled "MW-12" and submitted for volatile organic testing as a blind duplicate. No quality control/quality assurance problems are apparent.

#### **APPENDIX E: REPORT DISTRIBUTION LIST**

Copies of this report have been mailed to the attention of the following parties:

Seung Lee German Autocraft 301 E. 14th Street San Leandro, California 94577

Scott O. Seery Alameda County Department of Environmental Health 1131 Harbor Bay Parkway, #250 Alameda, California 94502-6577

Mike Bakaldin City of San Leandro Fire Department 835 E. 14th Street, Suite 200 San Leandro, California 94577