

Quarterly Groundwater Monitoring Report—4<sup>th</sup> Quarter 2008

German Autocraft  
301 E. 14<sup>th</sup> Street  
San Leandro, California

Global ID No. T0600100639  
AC LOP Case # 2783

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Alameda County  
Environmental Health

Prepared For

Mr. Seung Lee  
German Autocraft  
San Leandro, CA 95070

Prepared By

**Groundwater**  **Cleaners Inc.**  
*Cleaning California from the Groundwater up*  
*347 Frederick Street, San Francisco, California 94117*  
*(415) 665-6181*

Date of Report: December 30, 2008

  
**Groundwater Cleaners Inc.**  
*Cleaning California from the Groundwater up*  
347 Frederick Street, San Francisco, California 94117  
(415) 665-6181

December 30, 2008

German Autocraft  
301 E. 14<sup>th</sup> Street  
San Leandro, CA 94577

Attn: Mr. Seung Lee

Subject: Quarterly Groundwater Monitoring Report—4<sup>th</sup> Quarter 2008

German Autocraft, AC LOP Case # 2783  
Global ID No. T0600100639

Dear Mr. Lee:

GWC is pleased to attach the Fourth Quarter 2008, *Quarterly Groundwater Monitoring Report*, which includes the analytical results for groundwater samples collected in December of 2008. GWC plans to continue quarterly groundwater sampling in accordance with Alameda County Department of Environmental Health (DEH) requirements. DEH has approved our February 2008 Work Plans for soil vapor intrusion testing and soil vapor extraction testing, so those associated activities are currently underway. Reports are scheduled to be completed in January, 2009.

If you have any questions or require further information, please do not hesitate to call us at (415) 665-6181.

Sincerely,

Cc: Ms. Donna Dragos, DEH  
Mr. Steven Plunkett, DEH

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Appendix A Groundwater Sample Collection Records  
Appendix B Chain of Custody Records and Laboratory Analytical Reports

## **1.0 Site Location and Background**

### **1.1 Site Location and Description**

The site is located at 301 E. 14<sup>th</sup> Street in San Leandro, CA, in a high-density, mixed-use neighborhood of residential and small commercial buildings. Figure 1 shows the site location. E. 14<sup>th</sup> Street is a busy thoroughfare, running approximately 25 degrees west of north-south. The site is approximately 90' x 120' with an area of about 10,800 square feet. The current site use is as an automobile repair facility.

### **1.2 Site Hydrogeologic Conditions**

The site is situated on mixed sediments about two miles east of San Francisco Bay. Site elevation is 48-50 feet above mean sea level, and groundwater elevation varies from 23-32 feet above mean sea level. Groundwater flow direction is typically W to WNW at a gradient of about 0.002 feet/ft. Figure 2 shows the general site layout and the locations of monitoring wells, both on-site and off-site.

### **1.3 Project History**

The fuel leak was discovered and the gasoline storage tank was removed in October of 1990. A site assessment, including installation of three initial monitoring wells, was performed in 1995, and further assessment work was done in July of 1998, including installation of seven additional monitoring wells. In 2001, three more monitoring wells were installed. To date, certain wells have been monitored quarterly and others monitored semi-annually or annually to maintain a record of groundwater conditions. No active remediation has taken place since removal of the gasoline storage tank. Table 1 summarizes well construction data known to GCI. We believe a follow-up file review will reveal more well information.

On December 5, 2007, a Corrective Action Plan was submitted to the ACEH website detailing how site cleanup might be accomplished, focusing on the core area of impacts. On February 22, 2008, Work Plans were submitted for a Soil Vapor Investigation and a Dual-phase, High-vacuum Soil Vapor Extraction with Air Sparging pilot test. Approval of those reports was received this quarter, and the work plans are being implemented.

### **1.4 Recent Activities**

All monitoring wells were monitored this quarter in accord with the DEH requirements. Wells MW-12, MW-13, MW-14 and 141 Farrelly were sampled.

## **2.0 Groundwater Monitoring Results**

### **2.1 Groundwater Elevation and Gradient**

Compared with historical results, the most recent groundwater elevation was on the lower side of the normal range for December. Historical December groundwater elevations average about 25 feet, but groundwater elevations this December were about 22 feet above mean sea level (see Table 3). The most recent flow direction, essentially due west, is shown on Figure 3; on-site wells as usual reflect a more complex local gradient. Table 2 presents groundwater elevation data for December 13, 2008, and Table 3 presents a cumulative summary of elevation data.

### **2.2 Groundwater Sample Collection and Analysis**

This quarter's wells (MW-12, MW-13, MW-14 and 141 Farrelly) were monitored and sampled by experienced personnel in accord with standard practices. All samples were placed on ice and transported to a State-certified analytical laboratory for analysis. Well purge water was stored on-site pending analysis and disposal. The Well Sampling Reports are attached as Appendix A.

### **2.3 Groundwater Sample Analytical Results**

All the monitoring well samples tested positive for trace amounts of Petroleum Hydrocarbons as gasoline (TPHg) and the affiliated Volatile Organic Compounds (BTEX), with highest concentrations (4,400 µg/L TPHg and 7.6 µg/L benzene) at MW-12 (see Figures 4 and 5). The distribution of contaminant values continues to correlate with the prevailing groundwater gradient. Table 4 presents groundwater analytical data for December 13, 2008, and Table 5 summarizes the historical groundwater analytical data.

## **3.0 Conclusions and Recommendations**

### **3.1 Conclusions**

All of the monitoring data are consistent with a historic release of gasoline from the subject site's former underground tank, and/or the associated fueling system. Concentrations of gasoline-related petroleum compounds are highest near the former tank location, demonstrated in historic testing, and directly down-gradient from that point. Concentrations drop off sharply with distance perpendicular from the prevailing groundwater flow direction (i.e., MW-6 and MW-14). The wells tested this quarter had typical contaminant concentrations compared with historical values, with most off-site wells slightly higher than December 2007 results, possibly resulting from lower groundwater elevations.

In 20 years since the removal of the underground storage tank, there was some dissipation of the contaminants in the first few years, but there has been very little reduction in hydrocarbon concentrations in recent years at wells such as MW-1 and MW-4. GCI concludes that the contaminants have reached levels at which they are likely to remain for the foreseeable future in the absence of remedial action, though there will likely continue to be some seasonal fluctuations in contaminant levels.

### 3.2 Recommendations

GCI has received approval of the Work Plans submitted in February for testing soil vapor intrusion and soil vapor extraction. These tests are intended to determine a reasonable cleanup standard to provide an adequate safety margin against intrusion of hydrocarbon vapors from contaminated soil and groundwater and to assess Soil Vapor Extraction as a viable cleanup method. These tests are scheduled to be concluded during the First Quarter, 2009.

MW-12 was available this quarter, but it has frequently been difficult to access due to parked cars. We recommend that MW-1A be substituted for MW-12 when it is unavailable for sampling.

## 4.0 Quality Assurance and Professional Certification

### 4.1 Quality Assurance

All sampling was performed by a staff technician, skilled and experienced with groundwater monitoring well sampling procedures. Samples were stored on ice and sent promptly to a State-certified analytical laboratory. The laboratory is audited by the State certification program for maintaining quality control procedures and for record keeping. The chain-of-custody records and certified laboratory analytical reports are attached as Appendix B.

### 4.2 Professional Certification

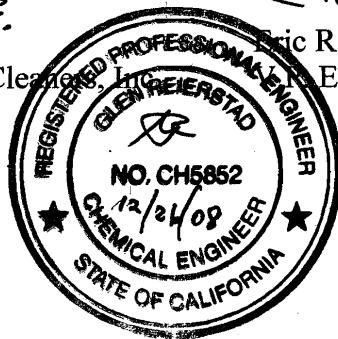
We declare, under penalty of perjury, that to the best of our knowledge, everything presented in this report is true and correct.

Should you have any questions or require supplemental information, please do not hesitate to contact us at (415) 665-6181.

Sincerely,

*Glenn Referstad, P.E.*  
Glenn Referstad, P.E.  
Project Manager, Groundwater Cleanup, LLC

*Eric R. Lautenbach*  
Eric R. Lautenbach,  
Engineering



## Figures

**Groundwater  Cleaners, Inc.**  
*Cleaning California from the Groundwater up*  
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(415) 665-6181

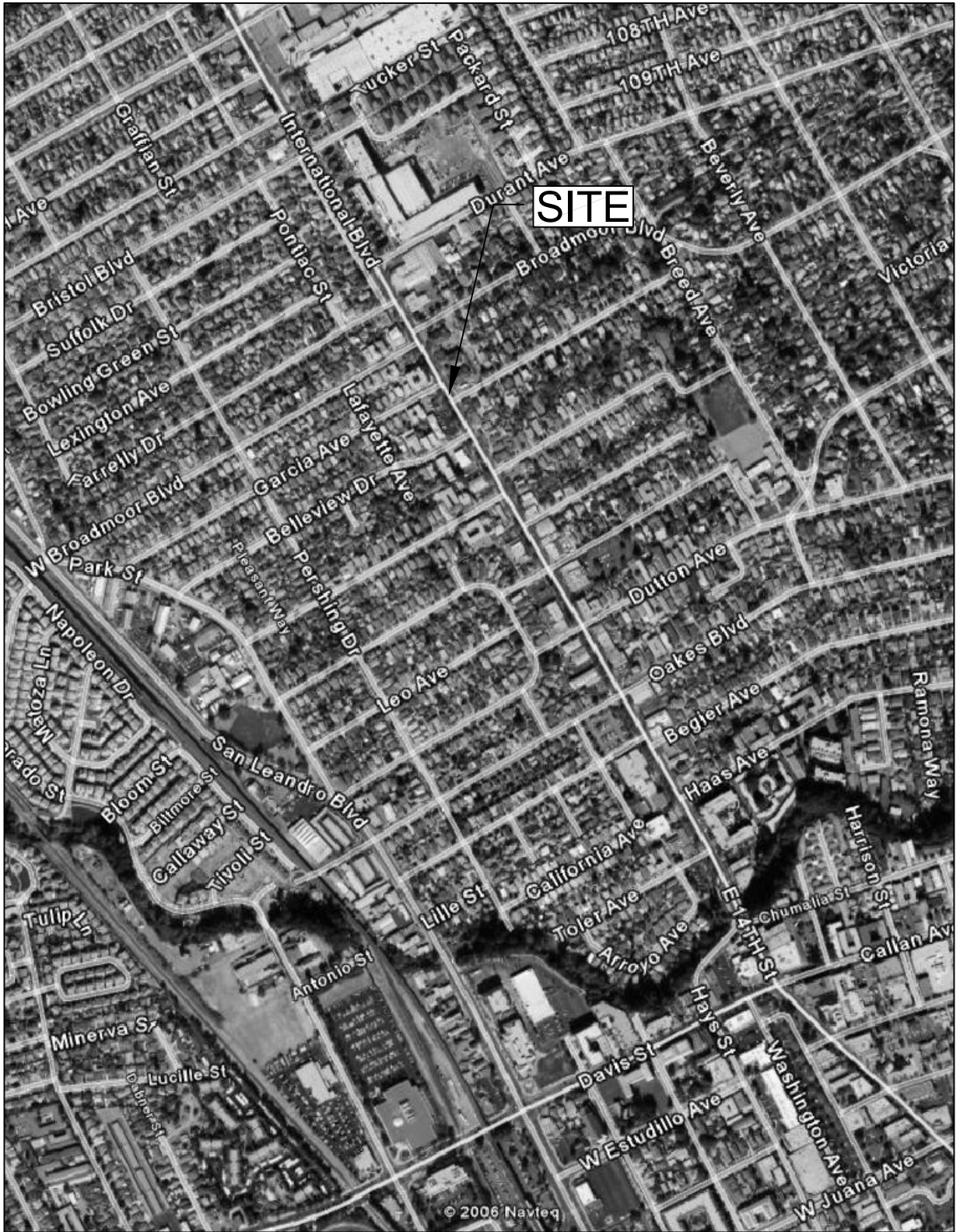


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German Autocraft  
301 East 14th Street  
San Leandro, California

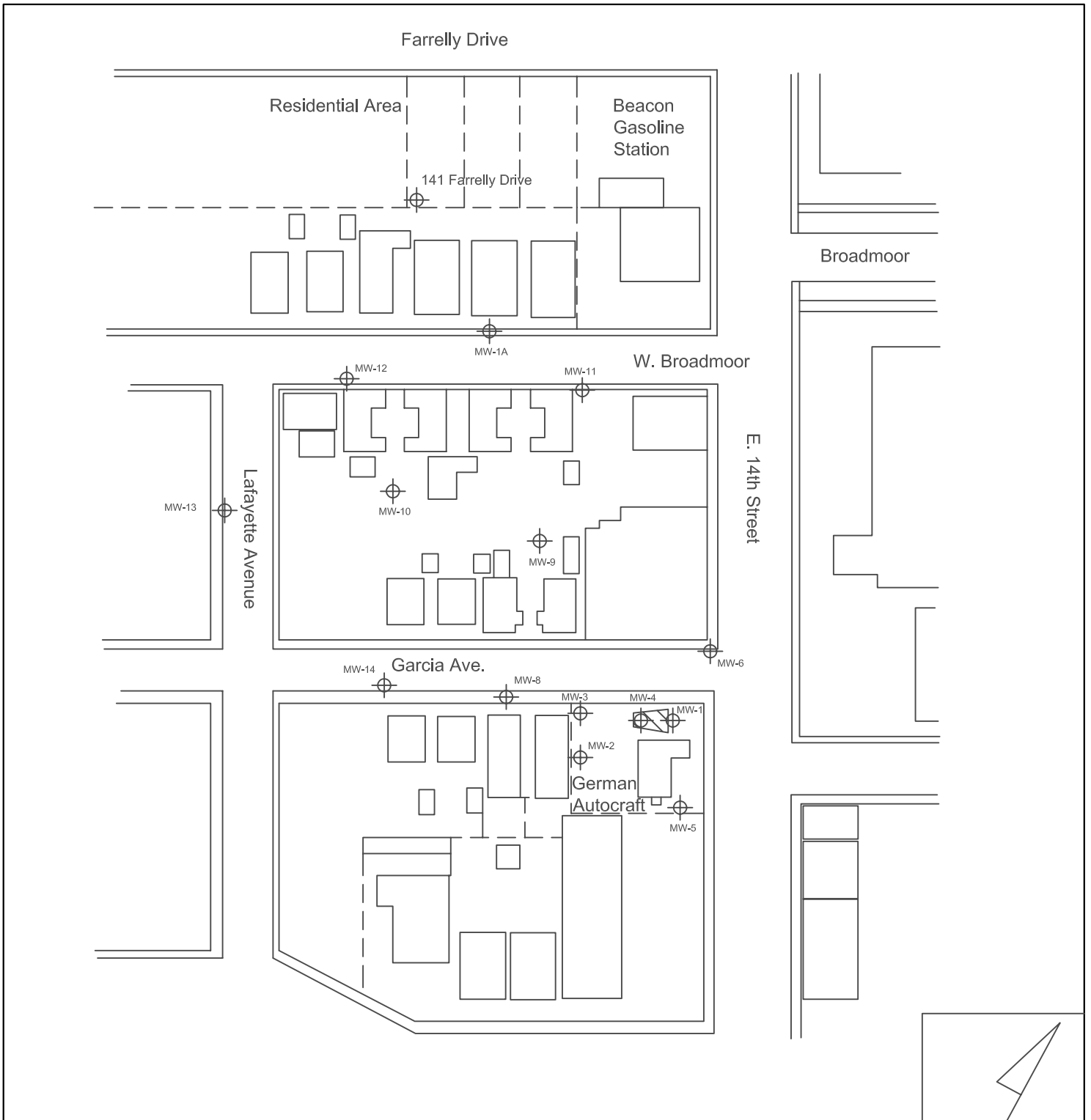
## Site Area Map

Figure 1

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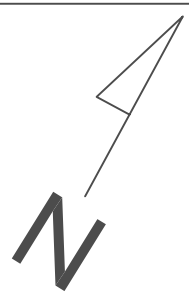


**EXPLANATION:**



Scale: 1"=120'

-  Streets/Buildings
-  Groundwater Monitoring Well
-  Former Tank Pit Areas
-  Buildings



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**Generalized Site Map**

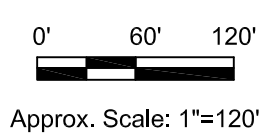
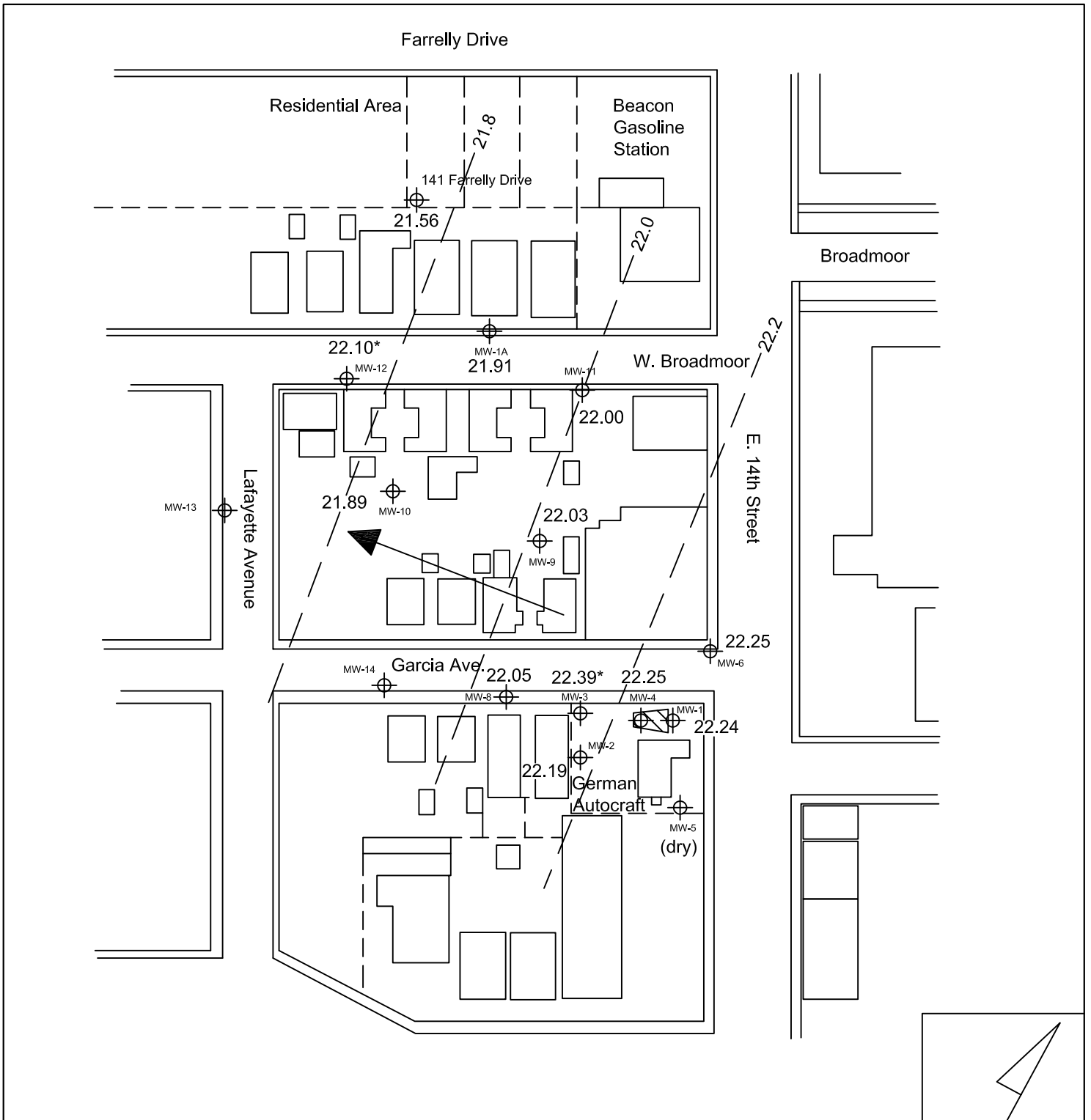
**Figure 2**

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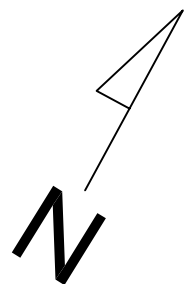
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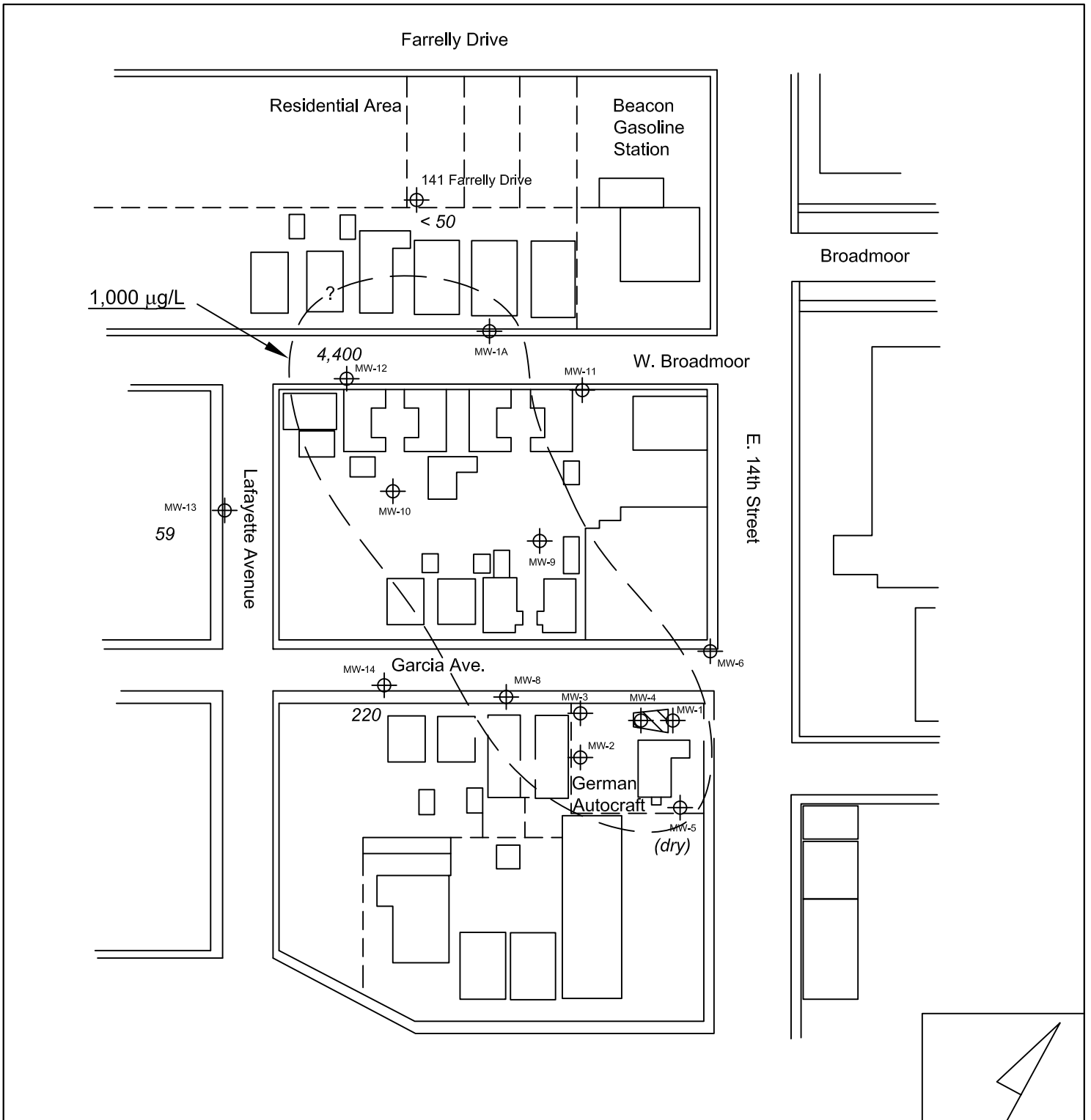
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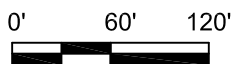
- Streets/Buildings
- ⊕ Groundwater Monitoring Well
- ▨ Former Tank Pit Areas
- Buildings

**Notes:**  
 Wells with no elevations have not yet been found to have surveyed casings from GWC research.  
 \* Anomolous elevation not used in contouring.





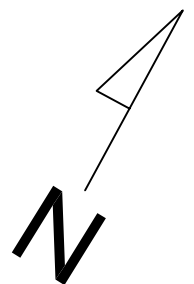
EXPLANATION:



Scale: 1"=120'

- Streets/Buildings
- ⊕ Groundwater Monitoring Well
- ▨ Former Tank Pit Areas
- Buildings

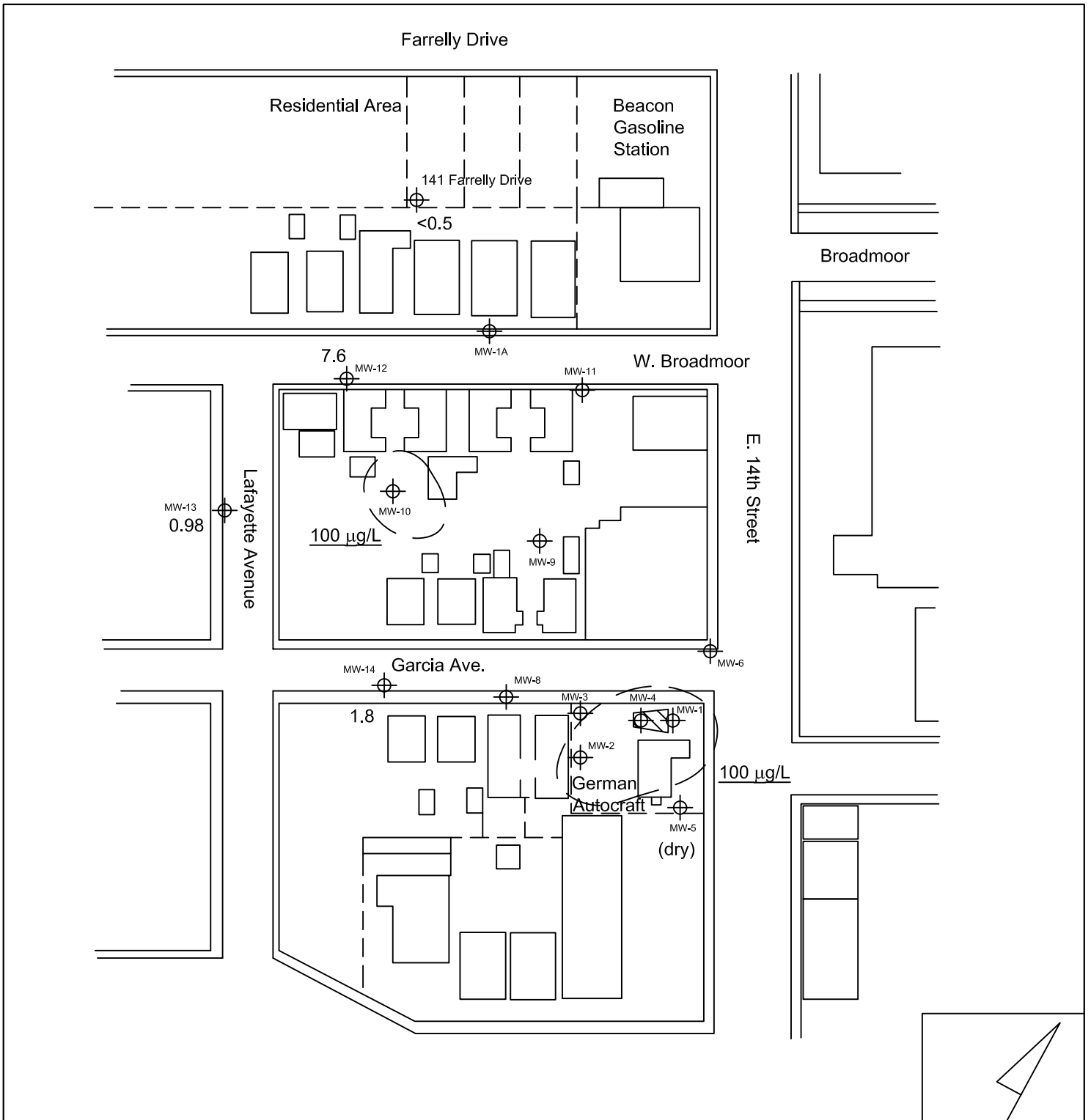
Concentrations in µg/L  
Contouring from September 2008 data



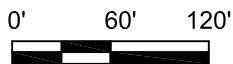
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German Autocraft  
301 East 14th Street  
San Leandro, California  
**TPHg in Groundwater**

**Figure 4**  
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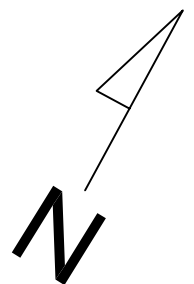
EXPLANATION:



Scale: 1"=120'

- Streets/Buildings
- ⊕ Groundwater Monitoring Well
- ▨ Former Tank Pit Areas
- Buildings

Concentrations in  $\mu\text{g/L}$   
 Contouring from September 2008 data



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**Benzene in Groundwater ( $\mu\text{g/L}$ )**

Figure 5  
 Rev. B  
 12.13.08

## **Tables**

**Groundwater  Cleaners, Inc.**  
*Cleaning California from the Groundwater up*  
*347 Frederick Street, San Francisco, California 94117*  
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**Table 1**  
**Summary of Well Construction Details**  
German Autocraft, 301 E. 14<sup>th</sup> Street, San Leandro, California

<b>Well Number</b>	<b>Date Installed</b>	<b>Casing Diameter (inches)</b>	<b>Total Depth (feet)</b>	<b>Screened Interval (feet)</b>	<b>Relative Location</b>	<b>TOC Elevation</b>
MW-1	1/6/95	2	32.10	20-40 ft	Onsite	49.40
MW-2	1/6/95	2	33.05	unknown	Onsite	50.02
MW-3	1/6/95	2	34.80	unknown	Onsite	49.32
MW-4	12/30/98	2	34.30	unknown	Onsite	49.61
MW-5	12/30/98	2	21.15	conflict	Onsite	49.57
MW-6	12/30/98	2	33.10	20-35 ft	Off-site	48.06
MW-8	12/30/98	2	34.20	20-30 ft	Off-site	49.35
MW-9	12/30/98	2	33.70	20-35 ft	Off-site	48.77
MW-10	12/30/98	2	37.50	20-40 ft	Off-site	49.93
MW-11	12/30/98	2	36.90	20-35 ft	Off-site	47.93
MW-12	3/20/01	2	38.22	23-38 ft	Off-site	unknown
MW-13	3/20/01	2	37.47	23-38 ft	Off-site	unknown
MW-14	3/20/01	2	30.43	20-30 ft	Off-site	unknown
MW-1A	5/30/97	2	33.88	unknown	Off-site	48.24
<b>141 Farrelly</b>	4/6/96	10	33.88	25- 65 ft	Off-site	48.76

**Table 2**  
**Current Quarter Groundwater Elevations**  
German Autocraft, 301 E. 14<sup>th</sup> Street, San Leandro, California

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-1	12/13/08	27.16	49.40	22.24
MW-2	12/13/08	27.83	50.02	22.19
MW-3	12/13/08	26.93	49.32	22.39
MW-4	12/13/08	27.36	49.61	22.25
MW-6	12/13/08	25.81	48.06	22.25
MW-8	12/13/08	27.30	49.35	22.05
MW-9	12/13/08	26.74	48.77	22.03
MW-10	12/13/08	28.04	49.93	21.89
MW-11	12/13/08	25.93	47.93	22.00
MW-12	12/13/08	26.66	48.76	22.10
MW-13	12/13/08	27.96	unknown	Nc

<b>MW-14</b>	12/13/08	27.72	unknown	Nc
<b>MW-1A</b>	12/13/08	26.33	48.24	21.91
<b>141 Farrelly</b>	12/13/08	27.20	48.76	21.56

nc = not calculated as TOC elevation is unknown. Nm = not measured as well was unavailable for sampling.

**Table 3**  
**Cumulative Summary of Groundwater Elevations**  
German Autocraft, 301 E. 14<sup>th</sup> Street, San Leandro, California

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-1</b>	12/21/90	30.25	49.40	19.15
	2/10/95	19.81	49.40	29.59
	7/7/95	22.77	49.40	26.63
	8/10/95	23.82	49.40	25.58
	9/11/95	24.72	49.40	24.68
	10/2/95	25.28	49.40	24.12
	11/7/95	26.04	49.40	23.36
	12/8/95	18.77	49.40	22.77
	1/12/96	25.05	49.40	24.35
	2/12/96	20.36	49.40	29.04
	3/12/96	17.65	49.40	31.75
	4/13/96	19.97	49.40	29.43
	5/14/96	21.51	49.40	27.89
	6/20/96	22.21	49.40	27.19
	7/26/96	23.45	49.40	25.95
	8/19/96	24.24	49.40	25.16
	9/17/96	24.96	49.40	24.44
	10/21/96	25.77	49.40	23.63
	11/27/96	25.12	49.40	24.28
	12/27/96	21.17	49.40	28.23
	1/28/97	16.38	49.40	33.02
	4/25/97	22.26	49.40	27.14
	7/17/97	24.85	49.40	24.55
	10/21/97	26.55	49.40	22.85
	3/10/98	15.05	49.40	34.35
	6/6/98	18.71	49.40	30.69

	9/30/98	23.45	49.40	25.95
	12/30/98	24.27	49.40	25.13
	3/13/99	19.42	49.40	29.98
	9/29/99	25.01	49.40	24.39
	12/29/99	25.65	49.40	23.75
	3/18/00	17.48	49.40	31.92
	7/18/00	23.19	49.40	26.21
	9/26/00	24.39	49.40	25.01
	12/28/00	24.77	49.40	24.63
	3/30/01	21.93	49.40	27.47
	10/5/01	25.58	49.40	23.82
	3/28/02	20.74	49.40	28.66
	3/31/03	22.72	49.40	26.68
	6/19/03	23.17	49.40	26.23
	9/30/03	25.35	49.40	24.05
	2/10/04	22.44	49.40	26.96
	6/30/04	24.67	49.40	24.73
	9/14/04	27.89	49.40	21.51
	3/29/06	18.84	49.40	30.56
	6/24/06	20.57	49.40	28.83
	9/30/06	23.53	49.40	25.87
	12/11/06	22.78	49.40	26.29
	03/16/07	nm	49.40	nm
	06/10/07	24.36	49.40	25.04
	09/14/07	25.92	49.40	23.48
	12/14/07	26.22	49.40	23.18
	03/12/08	22.40	49.40	27.00
	06/11/08	24.97	49.40	24.43
	09/05/08	26.44	49.40	22.96
	12/13/08	27.16	49.40	22.24

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-2</b>	2/10/95	---	50.02	29.62
	7/7/95	---	50.02	26.47
	8/10/95	---	50.02	25.40
	9/11/95	---	50.02	24.49
	10/2/95	---	50.02	23.94
	11/7/95	---	50.02	23.13
	12/8/95	---	50.02	22.55
	1/12/96	---	50.02	24.20
	2/12/96	---	50.02	29.03
	3/12/96	---	50.02	31.60
	4/13/96	---	50.02	29.25



	5/14/96	---	50.02	27.68
	6/20/96	---	50.02	26.97
	7/26/96	---	50.02	25.74
	8/19/96	---	50.02	24.97
	9/17/96	---	50.02	24.22
	10/21/96	---	50.02	23.43
	11/27/96	---	50.02	24.09
	12/27/96	---	50.02	28.03
	1/28/97	---	50.02	32.71
	4/25/97	---	50.02	26.88
	7/17/97	---	50.02	24.31
	10/21/97	---	50.02	22.69
	3/10/98	---	50.02	34.20
	6/6/98	---	50.02	30.41
	9/30/98	---	50.02	25.68
	12/30/98	---	50.02	24.93
	3/13/99	---	50.02	29.80
	9/29/99	---	50.02	24.12
	12/29/99	---	50.02	23.52
	3/18/00	---	50.02	31.87
	7/18/00	---	50.02	26.01
	9/26/00	---	50.02	24.69
	12/28/00	---	50.02	24.39
	3/30/01	---	50.02	27.31
	10/5/01	---	50.02	23.64
	3/28/02	---	50.02	28.43
	9/30/02	---	50.02	24.18
	3/31/03	---	50.02	26.39
	6/19/03	---	50.02	26.04
	9/30/03	---	50.02	23.83
	2/10/04	---	50.02	26.75
	6/30/04	---	50.02	24.57
	9/14/04	---	50.02	23.32
	3/29/06	19.61	50.02	30.41
	6/24/06	21.41	50.02	28.61
	9/30/06	24.37	50.02	25.65
	12/11/06	23.92	50.02	26.10
	03/16/07	22.78	50.02	27.24
	06/10/07	25.12	50.02	24.90
	09/14/07	26.63	50.02	23.39
	12/14/07	26.58	50.02	23.44
	03/12/08	23.10	50.02	26.92
	06/11/08	25.71	50.02	24.31
	09/05/08	27.14	50.02	22.88
	12/13/08	27.83	50.02	22.19

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-3</b>	2/10/95	---	49.32	29.57
	7/7/95	---	49.32	26.50
	8/10/95	---	49.32	25.44
	9/11/95	---	49.32	24.54
	10/2/95	---	49.32	24.00
	11/7/95	---	49.32	23.21
	12/8/95	---	49.32	22.62
	1/12/96	---	49.32	24.25
	2/12/96	---	49.32	29.00
	3/12/96	---	49.32	31.67
	4/13/96	---	49.32	29.26
	5/14/96	---	49.32	27.71
	6/20/96	---	49.32	27.00
	7/26/96	---	49.32	25.67
	8/19/96	---	49.32	25.01
	9/17/96	---	49.32	24.27
	10/21/96	---	49.32	23.48
	11/27/96	---	49.32	24.13
	12/27/96	---	49.32	28.11
	1/28/97	---	49.32	32.78
	4/25/97	---	49.32	26.94
	7/17/97	---	49.32	24.37
	10/21/97	---	49.32	22.73
	3/10/98	---	49.32	34.13
	6/6/98	---	49.32	30.47
	9/30/98	---	49.32	25.75
	12/30/98	---	49.32	24.99
	3/13/99	---	49.32	29.83
	9/29/99	---	49.32	24.20
	12/29/99	---	49.32	23.60
	3/18/00	---	49.32	31.82
	7/18/00	---	49.32	26.04
	9/26/00	---	49.32	24.80
	12/28/00	---	49.32	24.45
	3/30/01	---	49.32	27.39
	10/5/01	---	49.32	23.70
	3/28/02	---	49.32	28.49
	9/30/02	---	49.32	24.12

	3/31/03	---	49.32	26.50
	6/19/03	---	49.32	26.03
	9/30/03	---	49.32	23.82
	2/10/04	---	49.32	26.79
	6/30/04	---	49.32	24.59
	9/14/04	---	49.32	21.39
	3/29/06	18.87	49.32	30.45
	6/24/06	22.65	49.32	26.67
	9/30/06	24.49	49.32	24.83
	12/11/06	23.03	49.32	26.29
	03/16/07	21.97	49.32	27.35
	06/10/07	24.28	49.32	25.04
	09/14/07	25.75	49.32	23.57
	12/14/07	25.96	49.32	23.36
	03/12/08	22.31	49.32	27.01
	06/11/08	24.80	49.32	24.52
	09/05/08	26.23	49.32	23.09
	12/13/08	26.93	49.32	22.39

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-4</b>	12/30/98	---	49.61	25.05
	3/13/99	---	49.61	29.89
	9/29/99	---	49.61	24.27
	12/29/99	---	49.61	23.64
	3/18/00	---	49.61	31.85
	12/28/00	---	49.61	24.52
	3/30/01	---	49.61	27.40
	10/5/01	---	49.61	23.77
	3/28/02	---	49.61	28.58
	9/30/02	---	49.61	24.32
	3/31/03	---	49.61	26.59
	6/19/03	---	49.61	26.16
	9/30/03	---	49.61	23.96
	9/14/04	---	49.61	21.45
	3/29/06	19.87	49.61	29.74
	6/24/06	22.86	49.61	26.75
	9/30/06	23.94	49.61	25.67
	12/11/06	23.36	49.61	26.25
	03/16/07	22.26	49.61	27.35
	06/10/07	24.60	49.61	25.01
	09/14/07	26.11	49.61	23.50
	12/14/07	26.39	49.61	23.22

	03/12/08	22.62	49.61	26.99
	06/11/08	25.19	49.61	24.42
	09/05/08	26.64	49.61	22.97
	12/13/08	27.36	49.61	22.25

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-5</b>	12/30/98	---	49.57	25.06
	3/13/99	---	49.57	29.93
	9/29/99	---	49.57	24.26
	3/18/00	---	49.57	23.64
	3/28/02	---	49.57	31.94
	09/14/07	Dry	49.57	n/a
	12/14/07	Dry	49.57	n/a
	06/11/08	Dry	49.57	n/a
	09/05/08	Dry	49.57	n/a
	12/13/08	Dry	49.57	n/a

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-6</b>	12/30/98	---	48.06	25.14
	3/13/99	---	48.06	29.97
	9/29/99	---	48.06	24.38
	12/29/99	---	48.06	23.75
	3/18/00	---	48.06	31.86
	7/18/00	---	48.06	26.22
	9/26/00	---	48.06	24.95
	12/28/00	---	48.06	24.61
	3/30/01	---	48.06	27.41
	10/5/01	---	48.06	23.82
	3/28/02	---	48.06	28.65
	9/30/02	---	48.06	24.41
	9/30/06	22.33	48.06	25.73
	09/14/07	24.58	48.06	23.48
	12/14/07	24.88	48.06	23.18
	03/12/08	21.03	48.06	27.03

	06/11/08	23.62	48.06	24.44
	09/05/08	25.10	48.06	22.96
	12/13/08	25.81	48.06	22.25

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-8</b>	12/30/98	---	49.35	25.14
	3/13/99	---	49.35	---
	9/29/99	---	49.35	---
	12/29/99	---	49.35	---
	3/18/00	---	49.35	---
	7/18/00	---	49.35	---
	9/26/00	---	49.35	---
	12/28/00	---	49.35	---
	3/30/01	---	49.35	---
	10/5/01	---	49.35	---
	3/28/02	---	49.35	---
	9/30/06	24.07	49.35	25.28
	09/14/07	26.12	49.35	23.23
	12/14/07	26.35	49.35	23.00
	03/12/08	22.65	49.35	26.70
	06/11/08	25.23	49.35	24.12
	09/05/08	26.62	49.35	22.73
	12/13/08	27.30	49.35	22.05

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-9</b>	12/30/98	---	48.77	24.79
	3/13/99	---	48.77	29.58
	9/29/99	---	48.77	24.05
	12/29/99	---	48.77	23.45
	3/18/00	---	48.77	31.46
	7/18/00	---	48.77	25.83
	9/26/00	---	48.77	24.61
	12/28/00	---	48.77	24.29
	3/30/01	---	48.77	27.12
	10/5/01	---	48.77	23.54
	3/28/02	---	48.77	28.32
	9/30/02	---	48.77	24.11
	3/31/03	---	48.77	26.33
	6/19/03	---	48.77	25.90

	9/30/03	---	48.77	23.77
	2/10/04	---	48.77	26.64
	6/30/04	---	48.77	24.22
	9/14/04	---	48.77	23.08
	3/29/06	16.74	48.77	32.03
	6/24/06	22.43	48.77	26.34
	9/30/06	23.40	48.77	25.37
	12/11/06	22.78	48.77	25.99
	03/16/07	21.76	48.77	27.01
	09/14/07	25.50	48.77	23.27
	12/14/07	25.83	48.77	22.94
	03/12/08	22.08	48.77	26.69
	06/11/08	24.61	48.77	24.16
	09/05/08	26.04	48.77	22.73
	12/13/08	26.74	48.77	22.03

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-10</b>	12/30/98	---	49.93	24.78
	3/13/99	---	49.93	29.31
	9/29/99	---	49.93	23.80
	12/29/99	---	49.93	23.23
	3/18/00	---	49.93	31.26
	7/18/00	---	49.93	25.55
	9/26/00	---	49.93	24.34
	12/28/00	---	49.93	24.03
	3/30/01	---	49.93	26.79
	10/5/01	---	49.93	23.33
	3/28/02	---	49.93	28.06
	9/30/02	---	49.93	23.88
	3/31/03	---	49.93	26.06
	6/19/03	---	49.93	25.65
	9/30/03	---	49.93	23.56
	2/10/04	---	49.93	26.39
	6/30/04	---	49.93	24.22
	9/14/04	---	49.93	23.08
	3/29/06	20.18	49.93	29.75
	6/24/06	23.87	49.93	26.06
	9/30/06	24.80	49.93	25.13
	03/16/07	23.09	49.93	26.84
	09/14/07	26.87	49.93	23.06
	12/14/07	27.14	49.93	22.79
	03/12/08	23.48	49.93	26.45
	06/11/08	25.98	49.93	23.95

	09/05/08	27.38	49.93	22.55
	12/13/08	28.04	49.93	21.89

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-11</b>	12/30/98	---	47.93	24.78
	3/13/99	---	47.93	29.56
	9/29/99	---	47.93	24.03
	12/29/99	---	47.93	23.43
	3/18/00	---	47.93	31.38
	7/18/00	---	47.93	25.81
	9/26/00	---	47.93	24.58
	12/28/00	---	47.93	24.26
	3/30/01	---	47.93	27.03
	10/5/01	---	47.93	23.52
	3/28/02	---	47.93	28.31
	9/30/02	---	47.93	24.09
	9/30/06	22.58	47.93	25.35
	09/14/07	24.72	47.93	25.21
	12/14/07	25.00	47.93	22.93
	06/11/08	23.81	47.93	24.12
	09/05/08	25.23	47.93	22.70
	12/13/08	25.93	47.93	22.00

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-12</b>	12/30/98	---	48.76	24.78
	3/13/99	---	48.76	29.56
	9/29/99	---	48.76	24.03
	12/29/99	---	48.76	23.43
	3/18/00	---	48.76	31.38
	7/18/00	---	48.76	25.81
	9/26/00	---	48.76	24.58
	12/28/00	---	48.76	24.26
	3/30/01	---	48.76	27.03
	10/5/01	---	48.76	23.52
	3/28/02	---	48.76	28.31
	9/30/02	---	48.76	24.09
	9/30/06	22.58	48.76	26.18
	12/11/06	23.88	48.76	24.88
	03/16/07	21.77	48.76	26.99
	06/10/07	24.06	48.76	24.70

	09/14/07	Not available	48.76	nc
	12/14/07	25.77	48.76	22.99
	03/12/08	Not available		
	06/11/08	24.60	48.76	24.16
	09/05/08	25.97	48.76	22.79
	12/13/08	26.66	48.76	22.10

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-13</b>	12/30/98	---	unknown	24.78
	3/13/99	---	---	29.56
	9/29/99	---	---	24.03
	12/29/99	---	---	23.43
	3/18/00	---	---	31.38
	7/18/00	---	---	25.81
	9/26/00	---	---	24.58
	12/28/00	---	---	24.26
	3/30/01	---	---	27.03
	10/5/01	---	---	23.52
	3/28/02	---	---	28.31
	9/30/02	---	---	24.09
	9/30/06	22.58	---	---
	12/11/06	25.33	---	---
	03/16/07	23.00	---	---
	06/10/07	25.50	---	---
	09/14/07	26.85	nm	nc
	12/14/07	27.11	unknown	nc
	03/12/08	23.50	nm	nc
	06/11/08	26.02	nm	nc
	09/05/08	27.29	nm	nc
	12/13/08	27.96	nm	nc

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-14</b>	12/30/98	---	unknown	24.78
	3/13/99	---	---	29.56
	9/29/99	---	----	24.03
	12/29/99	---	---	23.43
	3/18/00	---	---	31.38



	7/18/00	---	---	25.81
	9/26/00	---	---	24.58
	12/28/00	---	---	24.26
	3/30/01	---	---	27.03
	10/5/01	---	---	23.52
	3/28/02	---	--	28.31
	9/30/02	---	---	24.09
	9/30/06	22.58	---	---
	12/11/06	24.90	---	---
	03/16/07	22.67	---	---
	06/10/07	25.11	---	---
	09/14/07	26.56	nm	nc
	12/14/07	26.80	unknown	nc
	03/1/08	23.03	nm	nc
	06/11/08	25.69	nm	nc
	09/05/08	27.04	nm	nc
	12/13/08	27.72	nm	nc

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>MW-1A</b>	12/30/98	---	48.24	24.64
	3/13/99	---	48.24	29.39
	9/29/99	---	48.24	23.89
	12/29/99	---	48.24	23.29
	3/18/00	---	48.24	31.25
	7/18/00	---	48.24	25.64
	9/26/00	---	48.24	24.48
	12/28/00	---	48.24	24.13
	3/30/01	---	48.24	27.02
	10/5/01	---	48.24	23.38
	3/28/02	---	48.24	28.14
	9/30/02	---	48.24	23.96
	9/30/06	23.03	48.24	25.21
	09/14/07	25.13	48.24	23.11
	12/14/07	25.43	48.24	22.81
	03/12/08	21.75	48.24	26.49
	06/11/08	24.24	48.24	24.00
	09/05/08	25.62	48.24	22.62
	12/13/08	26.33	48.24	21.91

<b>Well Number</b>	<b>Date Recorded</b>	<b>Depth to Groundwater (feet)</b>	<b>TOC Elevation (feet)</b>	<b>Groundwater Elevation (feet)</b>
<b>141 Farrelly</b>	03/18/00	17.90	48.76	30.86
	09/26/00	24.66	48.76	24.10
	03/30/01	22.25	48.76	26.51
	09/30/02	25.34	48.76	23.42
	12/21/02	20.07	48.76	28.69
	06/19/03	23.55	48.76	25.21
	09/14/04	26.12	48.76	22.64
	03/16/07	22.28	48.76	26.48
	09/14/07	25.98	48.76	22.78
	3/12/08	Not available	48.76	Nm
	06/11/08	Not Available	48.76	nm
	09/05/08	26.48	48.76	22.28
	12/13/08	27.20	48.76	21.56

**Table 4**  
**Current Quarter Groundwater Analytical Data**  
**September 5, 2008**

<b>Well Number</b>	<b>Date Sampled</b>	<b>TPHg (µg/l)</b>	<b>Benzene (µg/l)</b>	<b>Toluene (µg/l)</b>	<b>Ethyl-Benzene (µg/l)</b>	<b>Total Xylenes (µg/l)</b>	<b>MtBE (µg/l)</b>
MW-12	12/13/08						
MW-13	12/13/08						
MW-14	12/13/08						
141Farrelly	12/13/08						

Table 5  
Cumulative Summary of Groundwater Analytical Data

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-1</b>	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
	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	2,600	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
	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
	9/29/99	140,000	6,100	35,000	5,400	27,000
	3/18/00	120,000	5,100	33,000	4,600	24,000
	3/20/01	100,000	3,600	41,000	4,700	25,000
	3/28/02	100,000	2,800	24,000	5,400	28,900
	3/31/03	100,000	2,200	19,000	4,900	21,000
	3/31/04	100,000	2,100	21,000	6,200	36,000
	9/14/04	160,000	1,800	16,000	5,500	30,000
	3/29/06	69,000	1,400	16,000	4,900	28,000
	09/30/06	120,000	1,400	13,000	5,200	29,000
	09/14/07	92,000	1,000	9,400	4,300	23,000
	09/05/08	110,000	1,000	11,000	4,200	21,000

<b>Well Number</b>	<b>Date Sampled</b>	<b>TPHg (µg/l)</b>	<b>Benzene (µg/l)</b>	<b>Toluene (µg/l)</b>	<b>Ethyl-Benzene (µg/l)</b>	<b>Total Xylenes (µg/l)</b>
<b>MW-2</b>	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
	12/30/98	9,300	510	96	450	480
	3/23/99	5,700	580	9.4	400	280
	9/29/99	17,000	880	240	830	1,000
	12/29/99	11,000	800	11	860	780
	3/18/00	11,000	790	14	520	450
	7/18/00	10,000	560	27	630	530
	9/26/00	6,800	450	7.4	290	200
	12/28/00	12,000	540	30	420	330
	3/20/01	3,500	230	<10	<10	<10
	3/28/02	7,000	570	16	170	71
	3/31/03	5,000	620	<12.5	71	<25
	3/31/04	8,200	500	<12.5	65	<25
	9/14/04	9,000	560	<13	57	<25
	3/29/06	5,200	1,400	<20	52	<20
	9/30/06	4,800	900	64	22	110
	09/14/07	11,000	2,200	53	72	150
	09/05/08	10,000	1,000	49	120	120

<b>Well Number</b>	<b>Date Sampled</b>	<b>TPHg (µg/l)</b>	<b>Benzene (µg/l)</b>	<b>Toluene (µg/l)</b>	<b>Ethyl-Benzene (µg/l)</b>	<b>Total Xylenes (µg/l)</b>
<b>MW-3</b>	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	1,000	1,700	5,200
	9/29/99	39,000	6,000	840	2,400	8,100
	12/29/99	39,000	4,600	790	2,400	8,100
	3/18/00	21,000	3,100	550	1,400	4,100
	7/18/00	30,000	5,000	950	2,000	5,700
	9/26/00	36,000	5,300	640	2,400	9,900
	12/28/00	33,000	4,700	450	2,100	6,400
	3/20/01	21,000	2,000	260	570	3,000
	3/31/03	25,000	3,200	280	1,600	4,200
	3/31/04	11,000	1,000	940	550	1,900
	9/14/04	42,000	3,600	190	2,200	4,800
	3/29/06	7,200	180	17	460	680
	9/30/06	7,100	130	94	500	820
	09/14/07	6,700	16	44	200	400
	09/05/08	6,300	7.6	82	92	290

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-4</b>	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
	9/29/99	48,000	5,300	6,800	1,700	7,700
	3/18/00	44,000	4,500	7,500	2,200	11,000
	3/20/01	10,000	700	620	<10	1,900
	3/28/02	30,000	3,700	3,100	1,100	4,100
	3/31/03	25,000	2,000	2,100	820	2,900
	3/31/04	24,000	2,500	200	1,400	2,800
	9/14/04	14,000	760	550	430	1,600
	3/29/06	17,000	2,000	1,200	910	2,400
	9/30/06	4,000	440	120	240	360
	9/14/07	10,000	1,300	96	440	560

	9/05/08	12,000	1,400	110	960	840
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Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
MW-5	12/30/98	170	1.1	<0.5	<0.5	4.8
	3/22/99	470	3.8	0.51	2.0	<0.5
	9/29/99	1,200	13	4.2	2.7	4.2
	3/18/00	660	5.5	0.62	1.6	1.7
	3/29/06	190	<0.5	<0.5	<0.5	<0.5
	9/30/06	Dry	---	---	---	---
	9/14/07	Dry	---	---	---	---
	9/05/08	Dry				

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
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
	9/30/99	330	1.8	1.4	1.5	<0.5
	3/18/00	200	1.3	<0.5	<0.5	<0.5
	9/26/00	240	1.5	<0.5	<0.5	<0.5
	3/20/01	160	<0.5	<0.5	<0.5	<0.5
	3/28/02	88	.89	<0.5	<0.5	<0.5
	3/29/06	NS	NS	NS	NS	NS
	9/30/06	280	5.5	24	14	69
	9/14/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/05/08	84	0.92	0.76	1.7	3.5

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
MW-8	12/30/98	2,200	70	0.94	26	15
	3/23/99	2,300	34	1.1	15	13
	9/30/99	8,800	140	<50	53	<50
	12/29/99	1,900	64	1.0	22	23
	3/18/00	1,400	36	<0.5	12	9.3
	7/18/00	3,000	67	9.8	38	38
	9/26/00	1,200	24	3.0	24	15
	12/28/00	1,200	47	3.7	17	18

	3/20/01	1,300	7.8	<2.5	<2.5	14
	10/5/01	1,800	28	<2.5	20	23
	3/28/02	1,100	12	1.7	11	10.8
	9/30/02	1,400	15	24	32	22
	9/30/06	760	4.9	31	13	64
	03/16/07	370	<0.5	8.1	0.52	0.94
	09/14/07	1,300	1.3	20	3.0	1.6
	03/12/08	520	1.4	11	3.9	5.6
	09/05/08	1,800	1.9	30	5.0	4.0

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-9</b>	12/30/98	25,000	23	<10	180	620
	3/23/99	27,000	35	<20	600	920
	9/30/99	42,000	140	130	1,000	1,700
	12/29/99	1,100,000	1,200	1,300	4,300	8,700
	3/18/00	17,000	89	46	10	600
	7/18/00	12,000	39	8.2	540	760
	9/26/00	11,000	19	<5	470	610
	12/28/00	22,000	100	<100	610	770
	3/20/01	8,200	40	<10	14	210
	10/5/01	77,000	<100	110	780	850
	3/28/02	11,000	34	6.1	220	180
	9/30/02	34,000	<125	140	240	370
	3/31/03	6,200	<12.5	<12.5	130	87
	9/30/03	9,700	52	<25	160	87
	9/14/04	9,500	48	<25	93	<50
	3/29/06	6,200	<0.5	<0.5	57	11
	9/30/06	2,200	3.7	31	37	40
	3/16/07	3,200	2.2	37	18	2.9
	9/14/07	2,600	1.4	28	13	3.2
	03/12/08	2,800	2.3	32	12	5.3
	09/05/08	3,800	2.5	40	6.1	2.8

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-10</b>	12/30/98	6,900	130	19	140	210
	3/23/99	6,600	150	33	240	170
	9/30/99	9,300	60	38	280	150

	12/29/99	5,800	87	10	420	180
	3/18/00	3,800	180	11	220	120
	7/18/00	9,100	120	33	210	130
	9/26/00	4,500	22	8.8	1.3	18
	12/28/00	3,900	55	13	98	38
	3/20/01	4,500	48	6.0	<5	23
	10/5/01	5,200	70	28	41	30
	3/28/02	7,400	45	20	210	66
	9/30/02	670	54	5.9	76	23
	3/31/03	5,700	31	38	67	27
	9/30/03	7,400	61	<50	<50	<100
	9/14/04	9,100	47	<25	51	<50
	3/29/06	6,800	140	18	270	160
	9/30/06	5,700	61	30	78	120
	3/16/07	10,000	71	15	46	25
	9/14/07	5,800	55	18	22	15
	03/12/08	9,300	240	23	48	37
	09/05/08	8,400	120	12	18	16

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
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
	9/30/99	94	<0.5	<0.5	<0.5	<0.5
	3/18/00	<50	<0.5	<0.5	<0.5	<0.5
	9/26/00	<50	<0.5	<0.5	<0.5	<0.5
	3/20/01	<50	<0.5	<0.5	<0.5	<0.5
	3/28/02	<50	<0.5	<0.5	<0.5	<1.5
	9/30/06	160	1.8	12	7.6	40
	9/14/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/05/08	150	0.93	0.60	1.6	2.5

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
MW-12	3/20/01	4,100	28	6.2	<5	16
	6/29/01	4,200	26	25	19	29



	12/21/01	5,300	9.7	<2.5	41	14
	3/28/02	4,900	20	<2.5	69	23
	6/28/02	2,600	29	<12.5	30	<25
	9/30/02	700	16	4.9	19	9.8
	09/30/06	2,100	6.2	15	16	38
	12/11/06	5,500	13	24	16	23
	3/16/07	4,900	11	24	16	8.5
	6/10/07	2,600	<2.5	<2.5	13	9.5
	9/14/07	not	available			
	03/12/08	not	available			
	06/11/08	6,200	11	21	26	8.1
	09/05/08	5,000	7.3	15	12	5.9
	12/13/08	4,400	7.6	19	12	9.4

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-13</b>	3/20/01	<50	<0.5	<0.5	<0.5	<0.5
	6/29/01	<50	<0.5	<0.5	<0.5	<0.5
	10/5/01	<50	<0.5	<0.5	<0.5	<0.5
	12/21/01	<50	<0.5	<0.5	<0.5	<0.5
	3/28/02	<50	<0.5	<0.5	<0.5	<1.5
	6/28/02	<50	<0.5	<0.5	<0.5	<1.0
	9/30/02	<50	<0.5	<0.5	<0.5	<1.0
	12/21/02	<50	<0.5	<0.5	<0.5	<1.0
	09/30/06	170	2.1	13	8.1	43
	12/11/06	110	4.6	6.5	4.6	17
	3/16/07	<50	<0.5	<0.5	<0.5	<0.5
	6/10/07	54	0.80	0.84	1.3	5.4
	9/14/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/14/07	ND<50	0.76	ND<0.5	2.3	2.6
	03/12/08	ND<50	ND<0.5	ND<0.5	0.66	2.2
	06/11/08	120	0.58	0.97	1.1	2.0
	09/05/08	78	ND<0.5	0.60	0.98	2.1
	12/13/08	59	0.93	<0.5	2.5	3.8

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-14</b>	3/20/01	200	<0.5	<0.5	<0.5	<0.5
	6/29/01	660	<0.5	<0.5	<0.5	4.6
	10/5/01	770	1.7	1.5	0.91	8.3

	12/21/01	1,500	3.1	13	1.9	22
	3/28/02	390	1.7	<0.5	<0.5	0.74
	6/28/02	120	<0.5	<0.5	<0.5	<1
	9/30/02	210	<0.5	1.7	<0.5	1.1
	12/21/02	53	<0.5	<0.5	<0.5	<1.0
	09/30/06	210	2.5	15	9.1	48
	12/11/06	190	6.7	9.9	5.4	19
	3/16/07	<50	<0.5	1.1	<0.5	<0.5
	6/10/07	73	1.1	1.3	1.8	7.2
	9/14/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/14/07	69	1.1	0.57	3.5	4.5
	03/12/08	110	0.61	1.2	1.2	3.6
	06/11/08	52	<0.5	0.68	<0.5	1.0
	09/05/08	95	ND<0.5	1.3	0.61	2.3
	12/13/08	220	1.5	4.3	3.2	5.1

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>MW-1A</b>	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
	9/30/99	13,000	63	26	30	72
	3/8/00	6,100	36	<5	9.7	45
	9/26/00	11,000	14	<5	65	150
	3/20/01	4,800	30	6.0	<5	7.0
	10/5/01	15,000	76	41	36	140
	3/28/02	9,300	35	<12.5	17	32
	9/30/02	23,000	<50	63	77	230
	9/30/06	2,500	4.1	25	22	49
	3/16/07	1,800	1.8	17	6.4	4.4
	9/14/07	1,500	1.1	15	2.8	1.8
	03/12/08	1,200	2.1	12	5.0	3.6
	09/05/08	1,900	2.4	14	10	5.4

Well Number	Date Sampled	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Total Xylenes (µg/l)
<b>141 Farrelly</b>	4/6/96	<50	<0.5	<0.5	<0.5	<0.5
	10/2/99	<50	<0.5	<0.5	<0.5	<0.5

	3/18/00	<50	<0.5	<0.5	<0.5	<0.5
	7/13/00	<50	<0.5	<0.5	<0.5	<0.5
	9/26/00	<50	<0.5	<0.5	<0.5	<0.5
	12/29/00	<50	<0.5	<0.5	<0.5	<0.5
	12/21/01	<50	<0.5	<0.5	<0.5	<0.5
	9/30/02	<50	<0.5	<0.5	<0.5	<1.0
	12/21/02	<50	<0.5	<0.5	<0.5	<1.0
	6/19/03	<50	<0.5	<0.5	<0.5	<1.0
	9/14/04	<50	<0.5	<0.5	<0.5	<1.0
	3/16/07	<50	<0.5	<0.5	<0.5	<0.5
	9/14/07	<50	<0.5	<0.5	<0.5	<0.5
	9/5/08	<50	<0.5	<0.5	<0.5	<0.5
	12/13/08	<50	<0.5	<0.5	<0.5	<0.5

## **Well Sampling Reports**

**Groundwater  Cleaners, Inc.**  
*Cleaning California from the Groundwater up*  
*347 Frederick Street, San Francisco, California 94117*  
*(415) 665-6181*

**Well Sampling Data (12/13/08)**  
**301 E. 14th Street**  
**San Leandro, CA**

**WELL: MW-1**

Well Purge Method: Submersible Pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 0.00

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	32.44	ft btoc
Depth to Water:	27.16	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

Notes: No obvious odor, DTW only, no sample

Date/Time	Purge	Purge	D.O.	O.R.P.	pH	Cond.	Temp	DTW	Recovery	Pump
12/13/08	Vol. [Gal]	Status	ppm	mV		uS	F	BTOC [ft]	%	Depth [ft]
		Pre-Purge	nm	nm	nm	nm	nm	27.16		na
		Purging	nm	nm	6.89	nm	57.2	nm		na
		Purging	nm	nm	6.84	nm	56.6	nm		na
		Purging	nm	nm	6.82	nm	56.6	nm		na
		Collect Sample	nm	nm	nm	nm	nm		99.69%	na

**WELL: MW-2**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 27.83

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	33.25	ft btoc
Depth to Water:	27.83	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

Notes: Strong petroleum odor. No sample, DTW only

Date/Time	Purge	Purge	D.O.	O.R.P.	pH	Cond.	Temp	DTW	Recovery	Pump
12/13/08	Vol. [Gal]	Status	ppm	mV		uS	F	BTOC [ft]	%	Depth [ft]
		Pre-Purge	nm	nm	nm	nm	nm	27.83		na
		Purging	nm	nm	6.84	nm	50.0	nm		na
		Purging	nm	nm	6.84	nm	50.7	nm		na
		Purging	nm	nm	6.84	nm	51.0	nm		na
		Collect Sample	nm	nm	nm	nm	nm	27.83	#DIV/0!	na

**WELL: MW-3**

Well Purge Method: Disposable Bailer  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 26.93

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	34.94	ft btoc
Depth to Water:	26.93	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

Note: Strong TPH odor present  
 No sample, DTW only

Date/Time	Purge	Purge	D.O.	O.R.P.	pH	Cond.	Temp	DTW	Recovery	Pump
12/13/08	Vol. [Gal]	Status	ppm	mV		uS	F	BTOC [ft]	%	Depth [ft]
		Pre-Purge	nm	nm	nm	nm	nm	26.93		na
		Purging	nm	nm	6.92	nm	55.5	nm		na
		Purging	nm	nm	6.89	nm	55.2	nm		na
		Purging	nm	nm	6.90	nm	55.4	nm		na
		Collect Sample	nm	nm	nm	nm	nm	26.93	#DIV/0!	na

**Well Sampling Data (12/13/08)**  
**301 E. 14th Street**  
**San Leandro, CA**

**WELL: MW-4**

Well Purge Method: Disposable Bailer  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 27.36

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	34.53	ft btoc
Depth to Water:	27.36	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

**Notes: Slight petroleum odor. No sample, DTW only**

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/2008	0- Static	Pre-Purge	nm	nm	nm	nm	nm	27.36		na
		Purging	nm	nm	6.94	nm	55.7	nm		na
		Purging	nm	nm	6.91	nm	55.2	nm		na
		Purging	nm	nm	6.91	nm	55.4	nm		na
		Collect Sample	nm	nm	nm	nm	nm	27.36	100.12%	na

**WELL: MW-5**

Well Purge Method: Disposable Bailer  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 0.00

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	21.62	ft btoc
Depth to Water:	Dry	ft btoc
Height of Water:	n/a	ft
Three Well Volumes:	0.00	gal

**Dry**

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp C	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/2008	0- Static	Pre-Purge	nm	nm	nm	nm	nm	Dry		na
		Purging	nm	nm	nm	nm	nm	nm		na
		Purging	nm	nm	nm	nm	nm	nm		na
		Purging	nm	nm	nm	nm	nm	nm		na
	nm	Collect Sample	nm	nm	nm	nm	nm		Dry	na

**WELL: MW-6**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 25.81

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	31.29	ft btoc
Depth to Water:	25.81	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

**Notes: No obvious odor. No sample, DTW only**

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/08		nm	nm	nm	nm	nm	nm	24.58		
		nm	nm	nm	7.43	nm	61.5	nm		
		nm	nm	nm	7.26	nm	61.1	nm		
		nm	nm	nm	6.96	nm	60.8	nm		
		nm	nm	nm	nm	nm	nm	25.81	99.70%	

**Well Sampling Data (12/13/08)**  
**301 E. 14th Street**  
**San Leandro, CA**

**WELL: MW-8**

Well Purge Method: Submersible Pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 27.30

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	29.69	ft btoc
Depth to Water:	27.30	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

**DTW Only, no sample**

Date/Time	Purge	Purge	D.O.	O.R.P.	pH	Cond.	Temp	DTW	Recovery	Pump
12/13/08	Vol. [Gal]	Status	ppm	mV		uS	F	BTOC [ft]	Sample Depth	Depth [ft]
	0	nm	nm	nm	nm	nm	nm	26.12	25	na
	1		nm	nm	7.34	nm	53.4	nm		na
	2		nm	nm	6.90	nm	65.5	nm		na
	4		nm	nm	6.77	nm	65.9	nm		na
	Total 4.0		nm	nm	nm	nm	nm	27.30	99.44%	na

**WELL: MW-9**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 26.74

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	32.97	ft btoc
Depth to Water:	26.74	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

**DTW Only, No Sample**

Date/Time	Purge	Purge	D.O.	O.R.P.	pH	Cond.	Temp	DTW	Recovery	Pump
12/13/08	Vol. [Gal]	Status	ppm	mV		uS	F	BTOC [ft]	Sample Depth	Depth [ft]
	0	nm	nm	nm	nm	nm	nm	25.58		
	2	nm	nm	nm	6.88	nm	64.0	nm		
	4	nm	nm	nm	6.95	nm	65.6	nm		
	6	nm	nm	nm	6.98	nm	66.0	nm		
	Total 6.0 gal	nm	nm	nm	nm	nm	nm	26.74	99.69%	

**WELL: MW-10**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 28.04

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	37.87	ft btoc
Depth to Water:	28.04	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

**DTW Only, No sample**

Date/Time	Purge	Purge	D.O.	O.R.P.	pH	Cond.	Temp	DTW	Recovery	Pump
12/13/08	Vol. [Gal]	Status	ppm	mV		uS	F	BTOC [ft]	Sample Depth	Depth [ft]
	0- Static	Pre-Purge	nm	nm	nm	nm	nm	28.04		na
	2	Purging	nm	nm	6.66	nm	64.2	nm		na
	4	Purging	nm	nm	6.70	nm	64.9	nm		na
	6	Purging	nm	nm	6.73	nm	65.1	nm		na
	Total 7.0	Collect Sample	nm	nm	nm	nm	nm	28.04	99.91%	na

**Well Sampling Data (12/13/08)**  
**301 E. 14th Street**  
**San Leandro, CA**

**WELL: MW-11**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 25.93

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	33.70	ft btoc
Depth to Water:	25.93	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

**Note: Well not scheduled for sampling DTW Only**

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/2008	0- Static	Pre-Purge	nm	nm	nm	nm	nm	25.93		na
		Purging	nm	nm	6.92	nm	58.8	nm		na
		Purging	nm	nm	6.92	nm	58.8	nm		na
		Purging	nm	nm	6.92	nm	58.8	nm		na
		Collect Sample	nm	nm	nm	nm	nm	25.93	100.00%	na

**WELL: MW-12**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: na

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	38.10	ft btoc
Depth to Water:	26.66	ft btoc
Height of Water:	11.44	ft
Three Well Volumes:	5.83	gal

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/2008	0- Static	Pre-Purge	nm	nm	nm	nm	nm	26.66		na
	1	Purging	nm	nm	6.83	nm	62.8	nm		na
	3	Purging	nm	nm	6.85	nm	64.0	nm		na
	5	Purging	nm	nm	6.86	nm	64.4	nm		na
		Collect Sample	nm	nm	nm	nm	nm	26.68	100.00%	na

**WELL: 141 Farrelly Dr.**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 27.20

Well Screen Interval:	-	ft bgs
Casing Diameter:	10	inches
Total Depth of Well:	33.88	ft btoc
Depth to Water:	27.20	ft btoc
Height of Water:	6.68	ft
Three Well Volumes:	85.17	gal

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/08	0		nm	nm	nm	nm	nm	21.37		na
	1		nm	nm	7.13	nm	62.3			na
	2		nm	nm	7.09	nm	62.5			na
	3		nm	nm	7.02	nm	62.8			na
			nm	nm	nm	nm	nm	27.20	100.00%	na



**Well Sampling Data (12/13/08)**  
**301 E. 14th Street**  
**San Leandro, CA**

**WELL: MW-13**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 27.96

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	37.47	ft btoc
Depth to Water:	27.96	ft btoc
Height of Water:	9.51	ft
Three Well Volumes:	4.85	gal

Notes: No petroleum odor present.

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/2008	0- Static	Pre-Purge	nm	nm	nm	nm	nm	27.96		na
	2	Purging	nm	nm	6.66	nm	63.6	nm		na
	4	Purging	nm	nm	6.65	nm	64.6	nm		na
	6	Purging	nm	nm	6.65	nm	64.7	nm		na
	Total 6.0	Collect Sample	nm	nm	nm	nm	nm	27.96	99.45%	na

**WELL: MW-14**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 27.72

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	30.43	ft btoc
Depth to Water:	27.72	ft btoc
Height of Water:	2.71	ft
Three Well Volumes:	1.38	gal

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/2008	0- Static	Pre-Purge	nm	nm	nm	nm	nm	27.72		na
	1	Purging	nm	nm	7.30	nm	62.4	nm		na
	2	Purging	nm	nm	7.11	nm	64.6	nm		na
	3	Purging	nm	nm	6.95	nm	65.1	nm		na
	Total 3.0	Collect Sample	nm	nm	nm	nm	nm	27.72	100.00%	na

**WELL: MW-1A**

Well Purge Method: Submersible pump  
 Sample Collection Method: Disposable Bailer  
 Sample Collection Depth: 21.75

Well Screen Interval:	-	ft bgs
Casing Diameter:	2	inches
Total Depth of Well:	33.88	ft btoc
Depth to Water:	26.33	ft btoc
Height of Water:		ft
Three Well Volumes:		gal

Petroleum odor noted  
 DTW only, no sample

Date/Time	Purge Vol. [Gal]	Purge Status	D.O. ppm	O.R.P. mV	pH	Cond. uS	Temp F	DTW BTOC [ft]	Recovery Sample Depth	Pump Depth [ft]
12/13/08	0		nm	nm	nm	nm	nm	21.37		na
	2		nm	nm	6.91	nm	65.4			na
	4		nm	nm	6.88	nm	65.9			na
	5		nm	nm	6.83	nm	66.0			na
	Total 5.0		nm	nm	nm	nm	nm	21.75	99.88%	na

## **Analytical Reports**

**Groundwater  Cleaners, Inc.**  
*Cleaning California from the Groundwater up*  
*347 Frederick Street, San Francisco, California 94117*  
*(415) 665-6181*



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

Groundwater Cleaners  347 Frederick Street  San Francisco, CA 94117	Client Project ID: MW-12,13,14, & 141 F.	Date Sampled: 12/13/08
		Date Received: 12/15/08
	Client Contact: Glenn Reierstad	Date Reported: 12/22/08
	Client P.O.:	Date Completed: 12/22/08

**WorkOrder: 0812451**

December 22, 2008

Dear Glenn:

Enclosed within are:

- 1) The results of the **4** analyzed samples from your project: **MW-12,13,14, & 141 F.**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



**McC Campbell Analytical, Inc.**



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0812451**

**ClientCode: GCF**

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Report to: Glenn Reierstad  
Groundwater Cleaners  
347 Frederick Street  
San Francisco, CA 94117  
415-577-9383    FAX 415-566-3556

Email: reierstad@msn.com  
cc:  
PO:  
ProjectNo: MW-12,13,14, & 141 F.

Bill to: Glenn Reirstad  
Groundwater Cleaners  
347 Frederick Street  
San Francisco, CA 94117

Requested TAT: **5 days**  
*Date Received: 12/15/2008*  
*Date Printed: 12/15/2008*

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0812451-001	MW-12	Water	12/13/2008	<input type="checkbox"/>	A												
0812451-002	MW-13	Water	12/13/2008	<input type="checkbox"/>	A												
0812451-003	MW-14	Water	12/13/2008	<input type="checkbox"/>	A												
0812451-004	141 F	Water	12/13/2008	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTEX_W	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Samantha Arbuckle**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **Groundwater Cleaners**

Date and Time Received: **12/15/08 5:37:41 PM**

Project Name: **MW-12,13,14, & 141 F.**

Checklist completed and reviewed by: **Samantha Arbuckle**

WorkOrder N°: **0812451** Matrix Water

Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes  No
  - Container/Temp Blank temperature Cooler Temp: 4.1°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:





**QC SUMMARY REPORT FOR SW8021B/8015Cm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 40290

WorkOrder 0812451

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0812451-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	112	108	4.12	95.8	96.2	0.402	70 - 130	20	70 - 130	20
MTBE	ND	10	116	103	11.4	91.8	94.6	2.95	70 - 130	20	70 - 130	20
Benzene	ND	10	90.7	84.2	7.42	89.9	93.1	3.45	70 - 130	20	70 - 130	20
Toluene	ND	10	94.6	88.1	7.19	91.4	94.1	2.92	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	93.5	89.3	4.61	96.3	98.9	2.73	70 - 130	20	70 - 130	20
Xylenes	ND	30	106	102	4.61	107	109	2.62	70 - 130	20	70 - 130	20
%SS:	96	10	100	100	0	91	93	2.49	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 40290 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0812451-001A	12/13/08	12/19/08	12/19/08 8:21 PM	0812451-002A	12/13/08	12/18/08	12/18/08 8:45 PM
0812451-003A	12/13/08	12/18/08	12/18/08 9:19 PM	0812451-004A	12/13/08	12/18/08	12/18/08 9:52 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.