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Steven:
Please review.
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J.T.
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CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

July 30, 2002

BROWN AND CALDWELL

Mr. Steven Hariri, P.E.
Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

12/22946-100

Subject: Semi-Annual Groundwater Sampling Report - July 2002
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Dear Mr. Hariri:

On behalf of Jervis B. Webb Company of California (Webb of California), Brown and Caldwell is submitting this semi-annual report for environmental activities completed at 5030 Firestone Boulevard and 9301 Rayo Avenue, South Gate, California (site) (Figure 1). This report summarizes the activities, including groundwater monitoring and sampling performed at the site, completed July 2, 2002.

BACKGROUND

Numerous subsurface investigations have been performed at the subject site since 1998. Erler and Kalinowski, Inc. (EKI) completed several investigations at the site between 1998 and 2001 that included nine CPT borings, 37 soil gas probe locations, 19 soil borings, nine PIPP groundwater samples, five groundwater monitoring wells, and collection and analysis of 78 soil samples. Additionally, EKI operated and maintained a soil vapor extraction (SVE) system at the site from March 2000 until October 2001 removing approximately 177 pounds of volatile organic compounds (VOCs) from the soil, primarily trichloroethylene (TCE).

IT Corporation advanced five soil borings to determine how effectively the SVE system had removed soil contamination. IT Corporation collected 40 additional soil samples, and analyzed them for VOCs. Subsequently, IT Corporation submitted a Soil Closure Report dated October 3, 2001 to the RWQCB and obtained soil closure for the site in a letter issued by the RWQCB dated January 23, 2002.

Quarterly groundwater sampling has been conducted at the site by EKI from March 1998 until June 2001. The RWQCB authorized a reduction in sampling frequency from quarterly to semi-annually in a letter dated November 8, 2001. IT Corporation conducted the first semi-annual sampling event in January 2002.

The current groundwater sampling event was performed July 2, 2002 by Brown and Caldwell. Groundwater elevation measurements, groundwater quality data, and analytical results for the current and historic sampling events are provided in Tables 1 through 3 and Appendix A & B of this report.

COMPLETED SCOPE OF WORK

The scope of work performed during this reporting period included collection and analysis of water samples collected from groundwater monitoring wells located on and off-site (Figure 2). All work was performed under the supervision of a California Registered Geologist. Work was performed under a site-specific health and safety plan (HASP) prepared by Brown and Caldwell. A detailed summary of the field methodologies used for groundwater sampling is provided in Appendix A.

GROUNDWATER SAMPLING

The second semi-annual 2002 groundwater monitoring and sampling event was performed by Brown and Caldwell personnel on July 2, 2002. Field activities included depth-to-water measurements, well purging, and groundwater sample collection from groundwater monitoring wells MW-1 through MW-5 (Figure 2). The laboratory analytical results of the groundwater samples are provided in Appendix A of this report.

Prior to purging and sampling, depth-to-water and total well depth were measured in each well to the nearest hundredth of a foot using an electronic water level indicator. The probe was decontaminated between uses with Alconox™ detergent solution and tap water rinse followed by a final rinse with deionized water. The surveyed north side of the top edge of each well was used as a measuring point reference.

Each well was purged using a downhole pump, following low-flow sampling methodology, until the field parameters (pH, temperature, and conductivity) stabilized within ten percent of the last three readings. This ensures that the collected water sample is representative of the formation groundwater. Depth to groundwater, field groundwater quality parameters, and other pertinent information were recorded on Well Monitoring and Purging Data Forms, which are presented in Appendix B.

During the sampling, wells were purged using a submersible pump. Purged groundwater from the wells (MW-1 through MW-5) and water used for equipment decontamination (decon) was temporarily stored in a labeled, 55-gallon drum and left on-site. The drum containing the groundwater and decontamination water (approximately 30 gallons) was subsequently transported to a licensed California disposal facility for treatment & disposal by Belshire Environmental Services. A copy of the waste manifest is provided in Appendix C.

Following purging, groundwater samples were collected directly from the pump discharge hose and containerized in pre-cleaned laboratory supplied bottles. A dedicated pump discharge hose was used at each well to minimize the possibility of

cross-contamination. All samples were labeled with the site location, sample identification number, date and time of collection, sampler's initials, and logged on a chain-of-custody form. For laboratory quality control purposes, one duplicate sample ('MW-4 (Dup)') from MW-4 was collected during the groundwater-sampling event. One trip blank sample was also submitted to the laboratory with the collected samples. All samples were stored in an ice-chilled cooler at approximately 4 degrees Celsius. The groundwater samples were submitted to Calscience Laboratories, Inc. (Calscience), a California certified laboratory, under Brown and Caldwell chain-of-custody protocols.

Groundwater samples were analyzed for VOCs using United States Environmental Protection Agency (USEPA) method 8260B, Title 22 metals including arsenic, barium, total chromium, molybdenum, and zinc using USEPA method 6010B, and hexavalent chromium using USEPA method 7199. The sample water collected for the metals analysis was filtered by the laboratory prior to analysis.

RESULTS

Site Hydrogeology

Groundwater elevations within each well (MW-1 through MW-5) were monitored on July 2, 2002. Groundwater elevations ranged from 57.78 feet above mean sea level (ft. msl) in well MW-4 to 60.95 ft. msl in well MW-2. The water surface elevations recorded during the July 2002 sampling event indicate the potentiometric surface has dropped in elevation since the January 2002 semi-annual event, with an average decrease of 0.76 feet. The water surface elevation in all five wells has decreased since January 2002 with a maximum decrease of 0.93 feet observed in well MW-1.

The direction of groundwater flow during the July sampling event was southeasterly. This is consistent with previous sampling events. Figure 3 depicts the groundwater potentiometric surface on July 2, 2002. The gradient averages approximately 0.6 vertical feet per 100 lateral feet (0.006 ft/ft). Depth to groundwater and groundwater elevations for the monitoring wells are presented in Table 1.

Groundwater Sampling

VOCs: Groundwater samples collected from all five wells (MW-1 through MW-5) were analyzed for VOCs. Current and historical analytical data from previous sampling events are presented in Table 2. Detected concentrations of trichloroethene (TCE) from the current event are similar to those reported during previous events and ranged from 140 micrograms per liter (µg/l) in MW-4 to 15,000 µg/l in MW-1. Figure 4 represents an isoconcentration map of TCE concentrations from the July 2002 sampling event and shows that the TCE plume size and shape have remained stable since groundwater sampling commenced in 1998. Tetrachloroethene (PCE) was not detected in samples collected from any well except MW-1 (72 µg/l). Various chlorinated VOC degradation compounds were detected in the five wells, including cis-1,2-DCE (high of 170 µg/l in MW-3), trans-1,2-DCE

(high of 12 µg/l in MW-3), 1,1-DCE (high of 71 µg/l in MW-1), 1,1-DCA (high of 48 µg/l in MW-1), and 1,2-DCA (high of 2.7 µg/l in MW-3). Additional VOCs detected during the July 2002 semi-annual sampling event include benzene (19 µg/l in MW-3) and toluene (40 µg/l in MW-3). Vinyl chloride, chlorobenzene, chloroform, 1,2-DCB, 1,2- DCP, and 1,1,2-TCA were not detected during this sampling event.

Metals: Groundwater samples collected during the July 2002 event were also analyzed for dissolved metals. A summary of the metal analytical results is provided in Table 3. Dissolved metals detected during this sampling event include arsenic (high of 0.229 milligrams per liter (mg/l) in MW-1), barium (high of 0.0755 mg/l in MW-5), total chromium (only in MW-4 with 0.00561 mg/l), molybdenum (high of 1.33 mg/l in MW-2), and zinc (high of 0.0598 mg/l in MW-4). Hexavalent chromium was detected only in MW-1 with a concentration of 0.0017 mg/l. Arsenic has been measured in soils previously at the site, and has been determined to be naturally occurring. These arsenic levels are within normal background levels (naturally occurring) for Southern California soils according to a background trace metals report published by the California Department of Toxic Substances Control (1992) and are consistent with those levels found previously at the Rayo portion of the site. The arsenic levels are also consistent with background arsenic levels observed locally, including the nearby Cooper Drum Company site (9316 South Atlantic Avenue, South Gate (USEPA 1999)) and the Proposed Park Avenue Primary Center (SE corner of Florence Avenue and Wilcox Avenue in Cudahy (IT 2001)). This data supports the arsenic levels in groundwater to be part of the natural system at this site.

A summary of the VOC and metal analytical results from the July 2002 semi-annual sampling event is presented in Tables 2 & 3, respectively. A copy of the laboratory analytical report and chain-of-custody form is presented as Attachment A.

SUMMARY

The following provides a summary of results based on data collected during the July 2002 semi-annual sampling event:

- Five existing groundwater monitoring wells were sampled and analyzed for VOCs and metals.
- Groundwater surface elevations have decreased an average of 0.76 feet since the last sampling event.
- Groundwater flow direction is to the southeast, which is consistent with previous sampling events.
- The TCE plume size and shape remains consistent with previous sampling events, suggesting the plume is stable.

- VOC and metal concentrations from the July 2002 event are similar to previous events, with the highest detected concentrations observed in wells MW-1 and MW-3.

- Hexavalent chromium previously detected in four wells with a high concentration of 0.22 mg/l was detected in only one well during the July 2002 sampling event with a concentration of 0.0017 mg/l.

FUTURE SAMPLING

Based on data from the July 2002 semi-annual sampling event and previous sampling events, it is proposed that semi-annual sampling for VOCs continue for one more event. After the January 2003 sampling, annual sampling for VOCs will be conducted. Due to the low levels measured, and related background levels found at this and other nearby sites groundwater metals analyses will no longer be collected.

If you have any further questions, please do not hesitate to contact me at (949) 260-6146.

Very truly yours,

BROWN AND CALDWELL

Reinhard Ruhmke, R.G., C.HG.
Principal Geologist

cc: Michael Farley – Jervis B. Webb Company
Project file

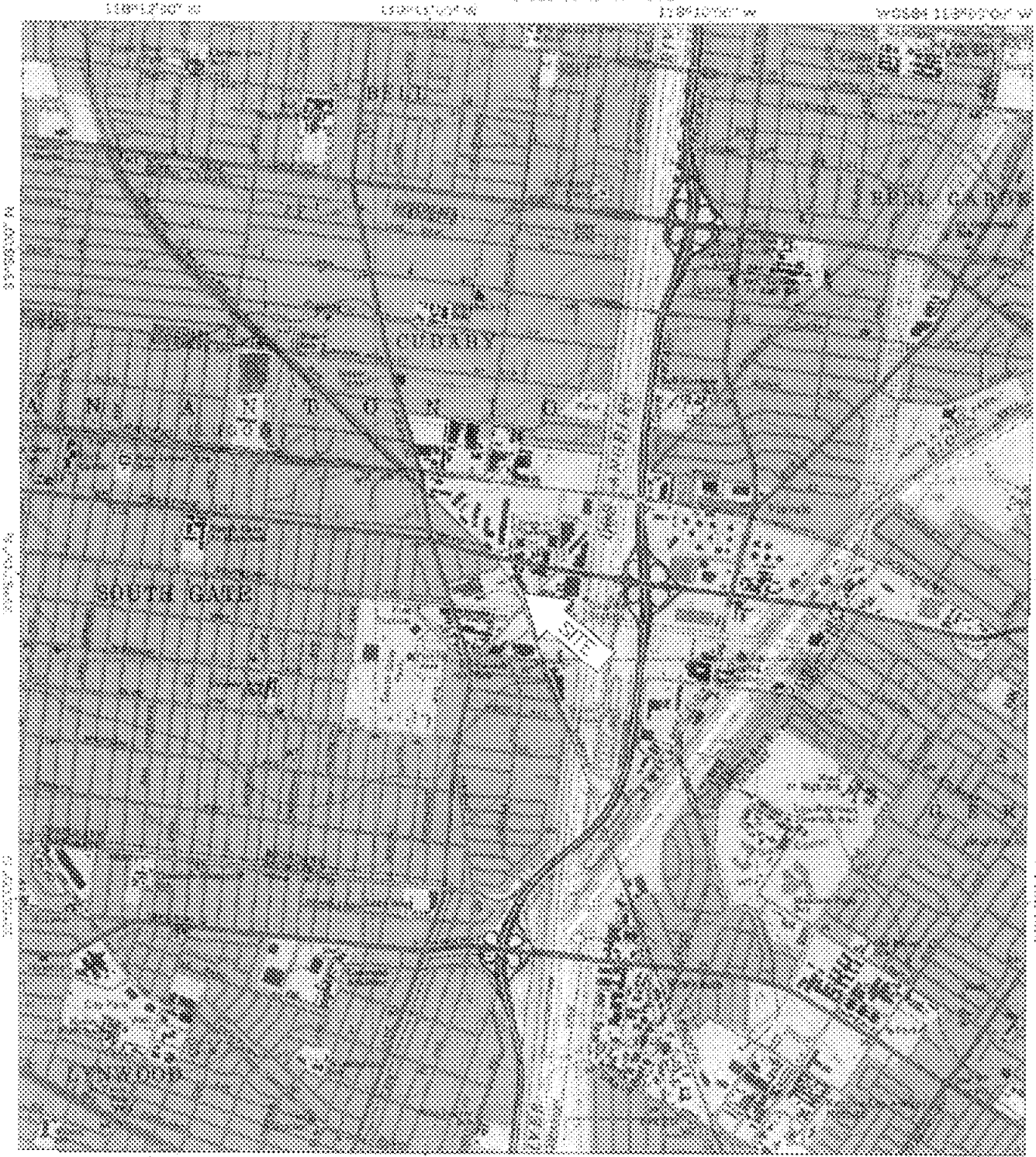
Encl. Figures
Tables
Appendix A: Laboratory Analytical Reports and Chain of Custody Forms
Appendix B: Well Monitoring and Purging Data Forms
Appendix C: Waste Manifest

References

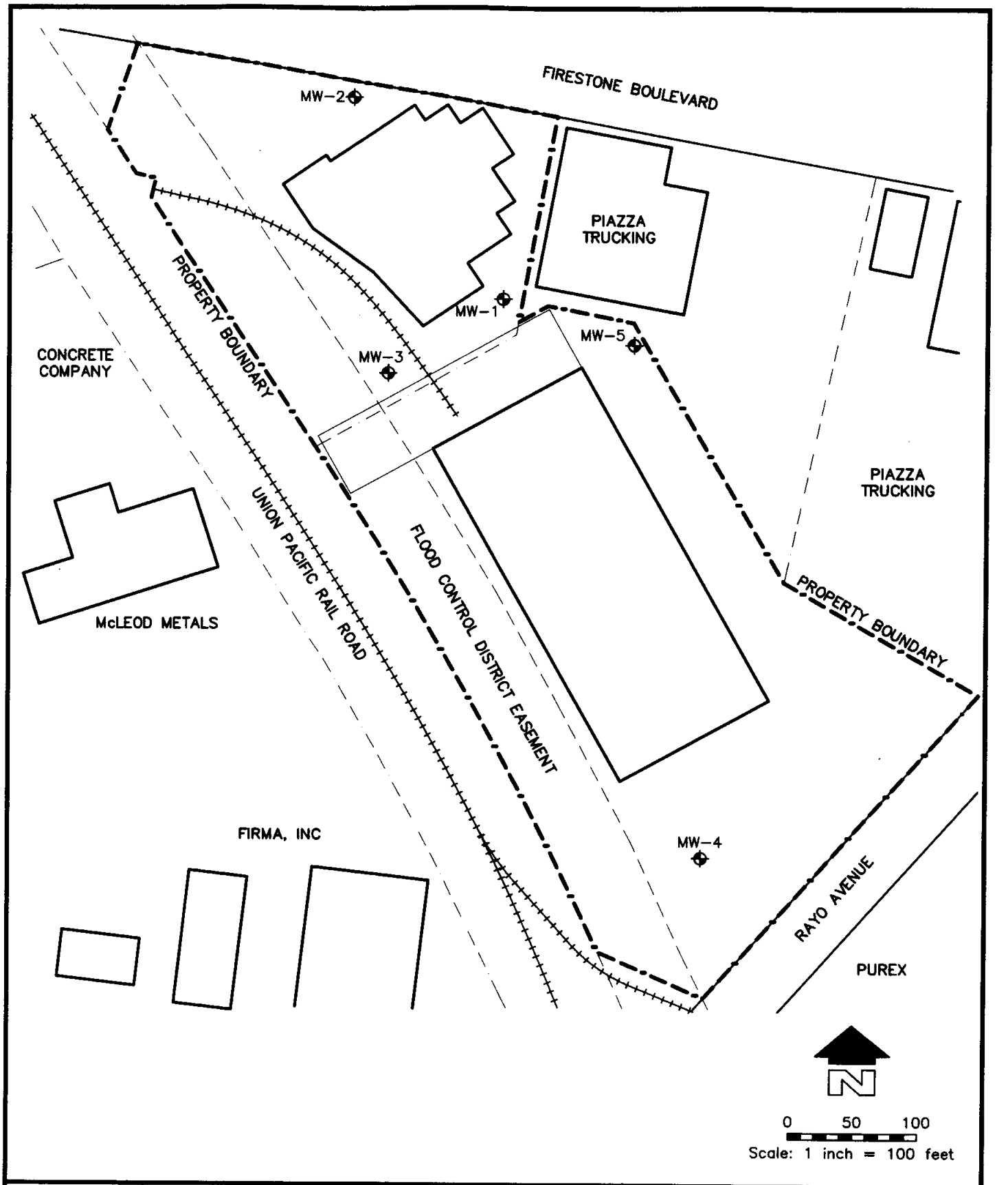
THE IT GROUP 2002, IT CORPORATION, Semi-Annual Groundwater Sampling Report – First Semester 2002, Jervis B. Webb Company of California, South Gate, California, Consultant Report dated February 28, 2002.

The IT GROUP 2002, IT CORPORATION, Soil Closure Report– Jervis B. Webb Company of California, South Gate, California, SLIC File No. 744, Consultant Report dated October 3, 2001.

FIGURES



DATE	PROJECT NUMBER	SITE LOCATION
JULY 2002	22946	
BROWN AND CALDWELL DAVIS, CALIFORNIA	PROJECT LOCATION: JERVIS B. WEBB COMPANY OF CALIFORNIA 5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE SOUTH GATE, CALIFORNIA	FIGURE 1



DATE	PROJECT NUMBER	SITE PLAN
JULY 2002	22946	
BROWN AND CALDWELL IRVINE, CALIFORNIA	PROJECT LOCATION: JERVIS B. WEBB COMPANY OF CALIFORNIA 5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE SOUTH GATE, CALIFORNIA	FIGURE 2

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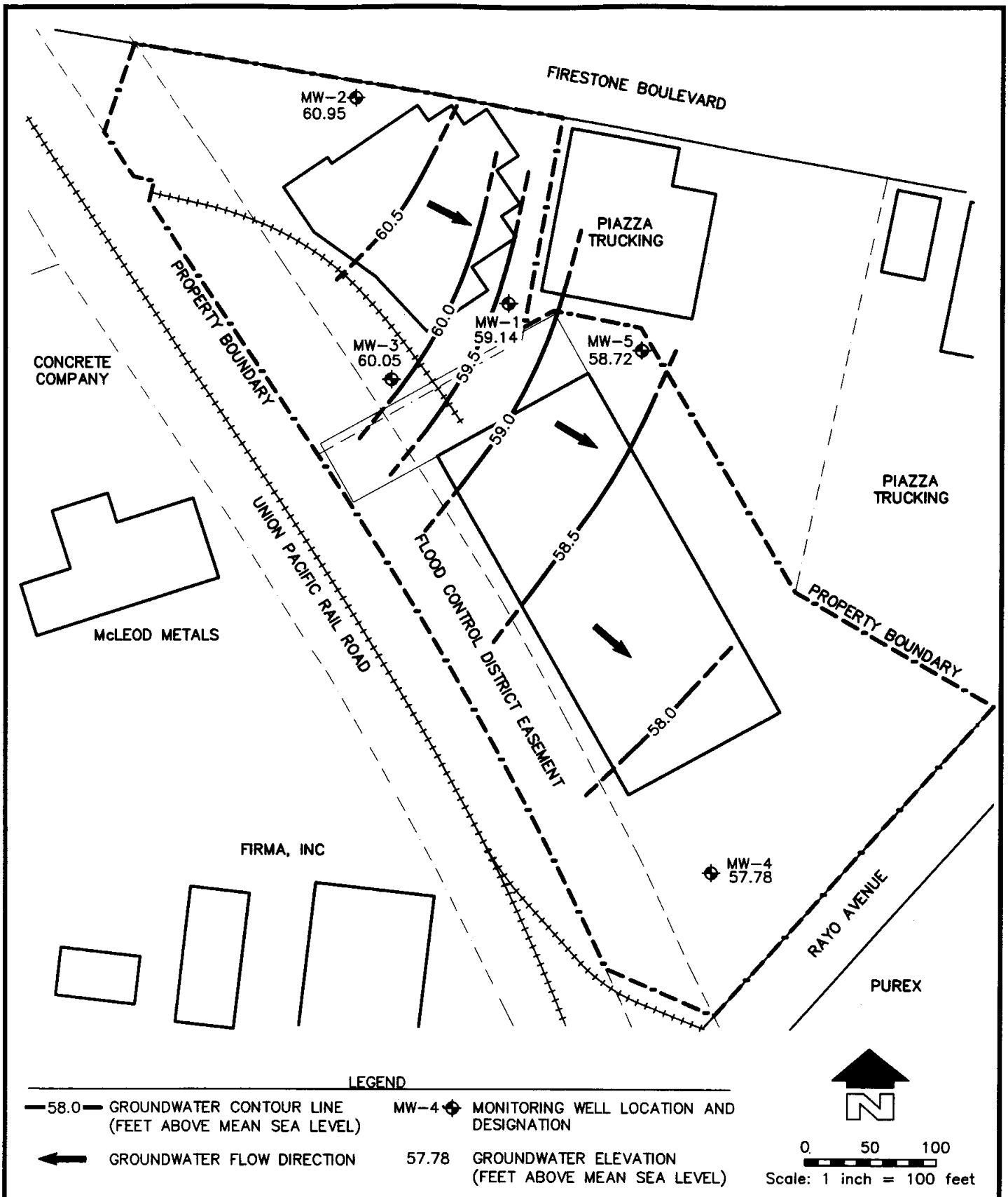


LEGEND

—58.0— GROUNDWATER CONTOUR LINE (FEET ABOVE MEAN SEA LEVEL)

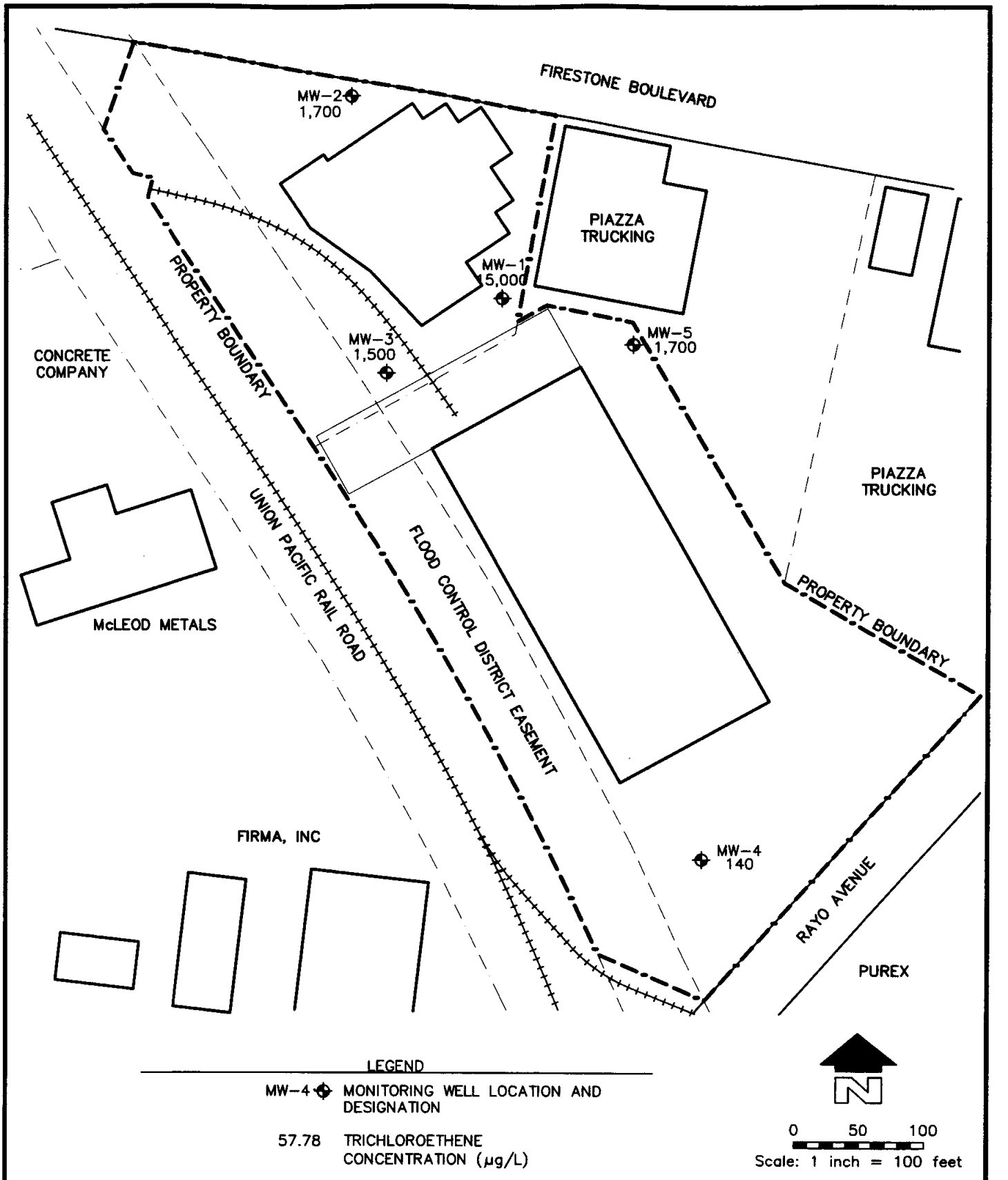
GROUNDWATER FLOW DIRECTION

MW-4 MONITORING WELL LOCATION AND DESIGNATION

57.78 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

DATE	PROJECT NUMBER	
JULY 2002	22946	**GROUNDWATER CONTOURS JULY 2002**
BROWN AND CALDWELL IRVINE, CALIFORNIA		PROJECT LOCATION: JERVIS B. WEBB COMPANY OF CALIFORNIA, 5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE, SOUTH GATE, CALIFORNIA
		FIGURE 3

EAS - CAD\22946\22946-SM



DATE	PROJECT NUMBER	TCE CONCENTRATION MAP JULY 2002	
JULY 2002	22946		
BROWN AND CALDWELL IRVINE, CALIFORNIA		PROJECT LOCATION: JERVIS B. WEBB COMPANY OF CALIFORNIA 5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE SOUTH GATE, CALIFORNIA	FIGURE 4

EAS - CAD\22946\22946-TCE

TABLES

Table 1.
Groundwater Elevations in Monitoring Wells
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft. msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-1	02/27/98	106.09	44.79	61.30	
	03/02/98	106.09	44.82	61.27	
	03/04/98	106.09	44.58	61.51	
	04/08/98	106.09	44.57	61.52	
	05/20/98	106.09	43.99	62.10	
	10/08/98	106.09	43.38	62.71	
	11/05/98	106.09	43.14	62.95	
	12/21/98	106.09	43.37	62.72	
	01/19/99	106.09	43.26	62.83	
	02/03/99	106.09	42.98	63.11	
	03/30/99	106.09	43.22	62.87	
	06/01/99	106.09	43.48	62.61	
	07/29/99	106.09	43.82	62.27	
	09/01/99	106.09	43.76	62.33	
	09/23/99	106.09	44.03	62.06	
	10/18/99	106.09	44.43	61.66	
	12/08/99	106.09	44.55	61.54	
	01/27/00	106.09	44.40	61.69	
	02/28/00	106.09	44.34	61.75	
	03/15/00	106.09	44.06	62.03	
	04/13/00	106.09	44.73	61.36	
	05/18/00	106.09	44.58	61.51	
	06/20/00	106.09	44.60	61.49	
	07/13/00	106.09	45.17	60.92	
	08/17/00	106.09	45.30	60.79	
	09/07/00	106.09	45.15	60.94	
	10/26/00	106.09	45.87	60.22	
	11/21/00	106.09	45.60	60.49	
	12/05/00	106.09	45.72	60.37	
	01/04/01	106.09	45.67	60.42	
	02/22/01	106.09	45.43	60.66	
	03/08/01	106.09	45.09	61.00	
	04/24/01	106.09	45.75	60.34	
	06/05/01	106.09	45.52	60.57	
	01/14/02	106.09	46.02	60.07	
	07/02/02	106.09	46.95	59.14	

Table 1 (Cont'd).
Groundwater Elevations in Monitoring Wells
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft. msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-2	02/27/98	106.65	44.02	62.63	
	03/02/98	106.65	44.06	62.59	
	03/04/98	106.65	44.13	62.52	
	04/08/98	106.65	NR		Truck parked on well
	05/20/98	106.65	43.51	63.14	
	10/08/98	106.65	42.84	63.81	
	11/05/98	106.65	42.64	64.01	
	12/21/98	106.65	42.69	63.96	
	01/19/99	106.65	42.66	63.99	
	02/03/99	106.65	42.55	64.10	
	03/30/99	106.65	42.63	64.02	
	06/01/99	106.65	42.91	63.74	
	07/29/99	106.65	43.13	63.52	
	09/01/99	106.65	43.14	63.51	
	09/23/99	106.65	43.35	63.30	
	10/18/99	106.65	43.60	63.05	
	12/08/99	106.65	43.62	63.03	
	01/27/00	106.65	43.86	62.79	
	02/28/00	106.65	43.86	62.79	
	03/15/00	106.65	43.62	63.03	
	04/13/00	106.65	43.92	62.73	
	05/18/00	106.65	43.50	63.15	
	06/20/00	106.65	43.48	63.17	
	07/13/00	106.65	43.29	63.36	
	08/17/00	106.65	43.38	63.27	
	09/07/00	106.65	44.30	62.35	
	10/26/00	106.65	44.74	61.91	
	11/21/00	106.65	44.52	62.13	
	12/05/00	106.65	44.51	62.14	
	01/04/01	106.65	44.55	62.10	
	02/22/01	106.65	43.91	62.74	
	03/08/01	106.65	43.25	63.40	
	04/24/01	106.65	44.64	62.01	
	06/05/01	106.65	44.50	62.15	
	01/14/02	106.65	44.90	61.75	
	07/02/02	106.65	45.70	60.95	

Table 1 (Cont'd).
Groundwater Elevations in Monitoring Wells
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft. msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-3	02/27/98	105.87	44.55	61.32	
	03/02/98	105.87	44.56	61.31	
	03/04/98	105.87	44.40	61.47	
	04/08/98	105.87	44.39	61.48	
	05/20/98	105.87	43.80	62.07	
	10/08/98	105.87	43.26	62.61	
	11/05/98	105.87	43.60	62.27	
	12/21/98	105.87	43.33	62.54	
	01/19/99	105.87	43.18	62.69	
	02/03/99	105.87	42.97	62.90	
	03/30/99	105.87	43.19	62.68	
	06/01/99	105.87	43.58	62.29	
	07/29/99	105.87	43.85	62.02	
	09/01/99	105.87	43.90	61.97	
	09/23/99	105.87	44.10	61.77	
	10/18/99	105.87	44.37	61.50	
	12/08/99	105.87	44.64	61.23	
	01/27/00	105.87	44.69	61.18	
	02/28/00	105.87	44.75	61.12	
	03/15/00	105.87	44.41	61.46	
	04/13/00	105.87	44.86	61.01	
	05/18/00	105.87	44.94	60.93	
	06/20/00	105.87	44.88	60.99	
	07/13/00	105.87	45.25	60.62	
	08/17/00	105.87	45.06	60.81	
	09/07/00	105.87	44.83	61.04	
	10/26/00	105.87	45.94	59.93	
	11/21/00	105.87	46.00	59.87	
	12/05/00	105.87	45.77	60.10	
	01/04/01	105.87	45.89	59.98	
	02/22/01	105.87	45.53	60.34	
	03/08/01	105.87	45.21	60.66	
	04/24/01	105.87	45.72	60.15	
	06/05/01	105.87	45.74	60.13	
	01/14/02	105.87	45.13	60.74	
	07/02/02	105.87	45.82	60.05	

Table 1 (Cont'd).
Groundwater Elevations in Monitoring Wells
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft. msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-4	11/03/98	104.72	42.77	61.93	
	11/05/98	104.72	42.64	62.08	
	12/21/98	104.72	42.93	61.79	
	01/19/99	104.72	42.80	61.92	
	02/03/99	104.72	42.63	62.09	
	03/30/99	104.72	42.89	61.83	
	06/01/99	104.72	43.28	61.44	
	07/29/99	104.72	43.63	61.09	
	09/01/99	104.72	43.70	61.02	
	09/23/99	104.72	43.96	60.76	
	10/18/99	104.72	44.22	60.5	
	12/08/99	104.72	44.48	60.24	
	01/27/00	104.72	44.70	60.02	
	02/28/00	104.72	NR		Truck Parked on well
	03/15/00	104.72	44.37	60.35	
	04/13/00	104.72	NR		Truck Parked on well
	05/18/00	104.72	44.81	59.91	
	06/20/00	104.72	44.94	59.78	
	07/13/00	104.72	45.10	59.62	
	08/17/00	104.72	45.36	59.36	
	09/07/00	104.72	45.31	59.41	
	10/26/00	104.72	45.89	58.83	
	11/21/00	104.72	45.86	58.86	
	12/05/00	104.72	45.71	59.01	
	01/04/01	104.72	45.79	58.93	
	02/22/01	104.72	45.49	59.23	
	03/08/01	104.72	45.62	59.10	
	04/24/01	104.72	45.68	59.04	
	06/05/01	104.72	45.80	58.92	
	01/14/01	104.72	46.23	58.49	
	07/02/02	104.72	46.94	57.78	

Table 1 (Cont'd).
Groundwater Elevations in Monitoring Wells
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft. msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-5	11/03/98	106.13	43.32	62.81	
	11/05/98	106.13	43.30	62.83	
	12/21/98	106.13	43.58	62.55	
	01/19/99	106.13	43.46	62.67	
	02/03/99	106.13	43.2	62.93	
	03/30/99	106.13	43.49	62.64	
	06/01/99	106.13	43.88	62.25	
	07/29/99	106.13	44.19	61.94	
	09/01/99	106.13	44.22	61.91	
	09/23/99	106.13	44.48	61.65	
	10/18/99	106.13	44.72	61.41	
	12/08/99	106.13	44.98	61.15	
	01/27/00	106.13	45.17	60.96	
	02/28/00	106.13	45.15	60.98	
	03/15/00	106.13	44.87	61.26	
	04/13/00	106.13	45.22	60.91	
	05/18/00	106.13	45.29	60.84	
	06/20/00	106.13	45.30	60.83	
	07/13/00	106.13	45.63	60.50	
	08/17/00	106.13	45.85	60.28	
	09/07/00	106.13	45.69	60.44	
	10/26/00	106.13	46.35	59.78	
	11/21/00	106.13	46.33	59.80	
	12/05/00	106.13	46.16	59.97	
	01/04/01	106.13	46.26	59.87	
	02/22/01	106.13	46.00	60.13	
	03/08/01	106.13	45.95	60.18	
	04/24/01	106.13	46.19	59.94	
	06/05/01	106.13	46.30	59.83	
	01/14/01	106.13	46.73	59.40	
	07/02/02	106.13	47.41	58.72	

NOTES

ft msl = feet above mean sea level
ft bgs = feet below ground surface
NR = Not Recorded
= Not Applicable

1. Monitoring well northing and easting coordinates and top-of-casting elevations for wells MW-1, MW-2, and MW-3 were surveyed on 6 March 1998 byRattray & Associates, Inc.
2. Monitoring well northing and easting coordinates and top-of-casting elevations for wells MW-4 and MW-5 were surveyed on 21 December 1998 by Rattray & Associates, Inc.

.e 2.

Results of VOCs Detected in Groundwater Samples

5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (µ/L)								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-1	MW-1	03/04/98	<100	<100	<100	220	<100	130	<100	140	24,000
	MW-1-DUP	03/04/98	<100	<100	<100	210	<100	150	<100	160	25,000
	MW-1	05/20/98	<125	<125	<125	160	<125	130	<125	<125	24,000
	MW-1	11/05/98	<125	<125	<125	140	<125	160	<125	170	28,000
	MW-1	02/03/99	<125	<125	<125	130	<125	160	<125	160	27,000
	MW-1	06/01/99	<100	<100	<100	140	<100	190	<100	160	28,000
	MW-1	09/01/99	<100	<100	140	220	<100	200	<100	190	32,000
	MW-1	12/08/99	<250	<250	<250	<250	<250	<250	<250	<250	30,000
	MW-1-A[3]	12/08/99	<100	<100	110	150	<100	200	<100	160	33,000
	MW-1	03/15/00	<100	<100	<100	160	<100	230	<100	150	30,000
	MW-1	06/20/00	<100	<100	<100	<100	<100	<100	<100	<100	24,000
	MW-1	09/07/00	<100	<100	<100	<100	<100	<100	<100	<100	21,000
	MW-1	12/05/00	<100	<100	<100	<100	<100	<100	<100	<100	30,000
	MW-1	03/08/01	<100	<100	<100	<100	<100	<100	<100	<100	23,000
	MW-1	06/05/01	<125	<125	<125	<125	<125	<125	<125	150	31,000
	MW-1	01/17/02	<200	<200	49J	47J	<200	520J	<200	65J	15,000
	MW-1 (PDB-1A)	01/17/02	<200	<200	62J	120J	<200	150J	<200	61J	20,000
	MW-1 (PDB-1B)	01/17/02	<200	<200	64J	120J	<200	150J	<200	84J	19,000
	MW-1	07/02/02	<10	<20	48	71	<10	140	<20	72	15,000
MW-2	MW-2	03/04/98	<10	<10	13	34	<10	65	<10	<10	2,700
	MW-2	05/20/98	<10	<10	14	38	<10	68	<10	<10	3,000
	MW-2	11/05/98	<10	<10	13	36	<10	68	<10	<10	3,200
	MW-2	02/03/99	<10	<10	13	36	<10	70	<10	<10	3,200
	MW-2	06/01/99	<10	<10	12	34	<10	68	<10	<10	2,800
	MW-2	09/01/99	<10	<10	16	49	<10	72	<10	<10	3,100
	MW-2	12/08/99	<13	<13	<13	<13	<13	57	<13	<13	2,400
	MW-2-A[3]	12/08/99	<10	<10	12	22	<10	63	<10	<10	2,600
	MW-2	03/15/00	<10	<10	<10	<10	<10	74	<10	<10	2,800
	MW-2	06/20/00	<10	<10	<10	<10	<10	46	<10	<10	2,000
	MW-2	09/07/00	<10	<10	<10	<10	<10	42	<10	<10	1,800
	MW-2	12/05/00	<10	<10	<10	<10	<10	50	<10	<10	2,300
	MW-2	03/08/01	<10	<10	<10	<10	<10	44	<10	<10	1,800
	MW-2-DUP	03/08/01	<10	<10	<10	<10	<10	42	<10	<10	1,600
	MW-2	06/05/01	<10	<10	<10	<10	<10	47	<10	<10	2,300
	MW-2	01/17/02	<50	<50	<50	25J	<50	59J	<50	<50	2,000
	MW-2 (PDB-2A)	01/17/02	<50	<50	<50	32J	<50	46J	<50	<50	1,900
	MW-2 (PDB-2B)	01/17/02	<50	<50	<50	38J	<50	52	<50	<50	2,300
	MW-2	07/02/02	<2.5	<5	<5	20	<2.5	50	<5	<5	1,700

Table 2 (Cont'd)

Results of VOCs Detected in Groundwater Samples

5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (µ/L)								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-3	MW-3	03/04/98	<10	13	14	82	<10	200	<10	<10	2,800
	MW-3	05/20/98	<10	<10	13	58	<10	230	15	<10	2,800
	MW-3	11/05/98	<10	<10	11	66	<10	240	18	<10	2,300
	MW-3	02/03/99	<10	<10	11	64	<10	220	18	<10	2,000
	MW-3	06/01/99	<10	<10	11	66	<10	240	18	<10	1,900
	MW-3	09/01/99	<10	<10	13	80	<10	270	20	<10	2,600
	MW-3	12/08/99	<13	<13	<13	<13	<13	220	<13	<13	2,500
	MW-3-A[3]	12/08/99	<10	<10	13	55	<10	240	19	<10	2,900
	MW-3	03/15/00	<10	<10	11	61	<10	300	20	<10	3,100
	MW-3	06/20/00	<10	<10	10	<10	<10	170	14	<10	1,900
	MW-3-DUP	06/20/00	<10	<10	11	<10	<10	200	16	<10	2,100
	MW-3	09/07/00	<10	<10	<10	<10	<10	160	<10	<10	1,700
	MW-3-DUP	09/07/00	<10	<10	<10	<10	<10	160	<10	<10	1,700
	MW-3	12/05/00	<10	<10	<10	<10	<10	200	<10	<10	2,,400
	MW-3-DUP	12/05/00	<10	<10	<10	<10	<10	210	<10	<10	2,500
	MW-3	03/08/01	<10	<10	<10	55	<10	200	<10	<10	1,700
	MW-3	06/05/01	<10	<10	<10	<10	<10	210	<10	<10	2,300
	MW-3	01/17/02	18J	<50	<50	40J	<50	130	14J	<50	1,200
	MW-3 (PDB-3A)	01/17/02	<50	<50	<50	18J	<50	140	15J	<50	1,700
	MW-3 (PDB-3A)	01/17/02	13J	<50	<50	54	<50	150	17J	<50	1,700
	MW-3	07/02/02	19	40	7.6	38	2.7	170	12	<5	1,500
MW-4	MW-4	11/05/98	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5	6.7
	MW-4	02/03/99	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5
	MW-4	06/01/99	<0.5	<0.5	<0.5	<0.5	65	1.1	<0.5	<0.5	0.90
	MW-4	09/01/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	12/08/99	1.2	<0.5	<0.5	<0.5	<0.5	4.1	1.0	<0.5	17
	MW-4-A[3]	12/08/99	1.2	<0.5	<0.5	<0.5	<0.5	4.6	1.1	<0.5	18
	MW-4	03/15/00	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68
	MW-4	06/20/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	09/07/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	12/05/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	03/08/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	06/05/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	01/17/02	0.28J	<1	<1	1.4	<1	61	6.7	<1	220
	MW-4 (PDB-4A)	01/17/02	<1	<1	<1	<1	<1	<1	<1	<1	0.30J
	MW-4 (PDB-4B)	01/17/02	<1	<1	<1	<1	<1	<1	<1	<1	0.23J
	MW-4	07/02/02	<0.5	<1	<1	<1	<0.5	17	1.3	<1	140
	MW-4 (DUP)	07/02/02	<0.5	<1	<1	<1	<0.5	20	1.6	<1	150

Table 2 (Cont'd)

Results of VOCs Detected in Groundwater Samples

5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

			Analyte Concentration (µg/L)								
Well ID	**Sample Number**	**Sample Date**	Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-5	MW-5	11/05/98	<25	<25	<25	**42**	<25	**380**	**30**	<25	**5,000**
	MW-5-DUP	11/05/98	<25	<25	<25	**40**	<25	**360**	**29**	<25	**4,800**
	MW-5	02/03/99	<25	<25	<25	**49**	<25	**420**	**35**	<25	**5,100**
	MW-5-DUP	02/03/99	<25	<25	<25	**45**	<25	**370**	**31**	<25	**4,500**
	MW-5	06/01/99	<25	<25	<25	**52**	**35**	**420**	**36**	<25	**5,500**
	MW-5-DUP	06/01/99	<25	<25	<25	**56**	**39**	**430**	**35**	<25	**5,300**
	MW-5	09/01/99	<25	<25	<25	**40**	<25	**420**	**45**	<25	**5,500**
	MW-5-DUP	09/01/99	<25	<25	<25	**69**	<25	**440**	**45**	<25	**6,000**
	MW-5	12/08/99	<50	<50	<50	<50	<50	**390**	<50	<50	**5,100**
	MW-5-A[3]	12/08/99	<25	<25	<25	<25	<25	**410**	**25**	<25	**5,300**
	MW-5-DUP	12/08/99	<50	<50	<50	<50	<50	**360**	<50	<50	**5,000**
	MW-5-DUP-A[3]	12/08/99	<25	<25	<25	<25	<25	**410**	**26**	<25	**5,300**
	MW-5	03/15/00	<50	<50	<50	<50	<50	**440**	<50	<50	**5,500**
	MW-5-DUP	03/15/00	<50	<50	<50	<50	<50	**450**	<50	<50	**5,800**
	MW-5	06/20/00	<25	<25	<25	<25	<25	**350**	<25	<25	**4,400**
	MW-5	09/07/00	<10	<10	<10	<10	<10	**280**	<10	<10	**3,700**
	MW-5	12/05/00	<10	<10	<10	<10	<10	**190**	<10	<10	**4,700**
	MW-5	03/08/01	<25	140	<25	<25	<25	**260**	<25	<25	**3,600**
	MW-5	06/05/01	<25	<25	<25	<25	<25	**340**	<25	<25	**5,400**
	MW-5-DUP	06/05/01	<25	<25	<25	<25	<25	**350**	<25	<25	**5,400**
	MW-5	01/17/02	<50	<50	<50	**13J**	<50	**120**	**13J**	<50	**1,900**
	MW-5 (PDB-5A)	01/17/02	<50	<50	<50	**22J**	<50	**140**	**18J**	<50	**3,200**
	MW-5 (PDB-5B)	01/17/02	<50	<50	<50	**37J**	<50	**270**	**29J**	<50	**4,000**
	MW-5	07/02/02	<2.5	7.8	<5	**8.9**	<2.5	**58**	**8.6**	<5	**1,700**
CA MCL			1.0	150	5.0	6.0	0.5	6.0	10	5.0	5.0

Notes:
1,1-DCA = 1,1-dichloroethane
1,1-DCE = 1,1-dichloroethene
1,2-DCA = 1,2-dichloroethane
c-1,2-DCE = cis-1,2-dicloroethene
t-1,2-DCE = trans-1,2-dichloroethene
PCE = terachloroethene
TCE = thrichloroethene
VOCs = volatile organic compounds
µg/L = micrograms per liter
J = value between Reporting Limit and Method Detection Limit
B = found in associated method blank

1. Current analyses performed by EMAX Laboratories, Inc., in Torrance, California using EPA Method 8260 for VOCs.
2. <indicates that the analyte was not detected at a concentration above the indicated method detection limit.
3. Samples collected on 8 December 1999 were intially analyzed on 9 December 1999 and were re-analyzed on 17 December 1999 in an attempt to achieve lower method detecetion limits.
4. CA MCL = California Maximum Containment Level
5. Bold denotes exceedance of MCL
6. PDB-1A = bottom of well casing (about 68-69 feet)
   PDB-1B = middle of well casing (about 52-54 feet)

Table 3.
Metal Analytical Results for Groundwater Samples
5030 Firestone Boulevard and 9301 Rayo Avenue
South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (mg/L)						
			Arsenic	Barium	Chromium	Chromium VI	Molybdenum	Zinc	TDS
MW-1	MW-1-0520	05/20/98	--	--	--	--	--	--	1,500
	MW-1	03/08/01	**0.32**	0.13	<0.01	<0.01	0.47	0.016	--
	MW-1	06/05/01	**0.32**	0.25	<0.01	<0.01	0.45	0.024	--
	MW-1	01/17/02	**0.244**	0.0523	<0.02	0.09	0.545	0.0039	--
	MW-1	07/02/02	**0.229**	0.0588	<0.005	0.0017	0.562	0.0242	--
MW-2	MW-2-0520	05/20/98	--	--	--	--	--	--	2,500
	MW-2	03/08/01	0.0066	0.019	<0.01	<0.01	1.1	0.015	--
	MW-2-DUP	03/08/01	0.0056	0.019	<0.01	<0.01	1.1	0.014	--
	MW-2	06/05/01	0.039	0.090	<0.01	<0.01	0.95	0.016	--
	MW-2	01/17/02	**0.0847**	0.070	<0.02	**0.22**	1.39	0.0183	--
	MW-2	07/02/02	**0.0682**	0.0232	<0.005	<0.001	1.33	0.0263	--
MW-3	MW-3-0520	05/20/98	--	--	--	--	--	--	1,100
	MW-3	03/08/01	**0.080**	0.15	<0.01	<0.01	0.71	0.012	--
	MW-3	06/05/01	**0.11**	0.32	<0.01	<0.01	0.79	0.023	--
	MW-3	01/17/02	**0.095**	0.0472	<0.02	0.15	1.06	<0.02	--
	MW-3	07/02/02	**0.0791**	0.0455	<0.005	<0.001	0.915	0.0157	--
MW-4	MW-4	03/08/01	0.0079	0.027	<0.01	<0.01	<0.05	0.025	--
	MW-4	06/05/01	0.027	0.030	<0.01	<0.01	<0.05	0.020	--
	MW-4	01/17/02	**0.0504**	0.134	<0.02	0.16	0.564	0.006	--
	MW-4	07/02/02	<0.0150	0.028	<0.005	<0.001	0.00688	0.060	--
	MW-4 (DUP)	07/02/02	<0.0150	0.0261	0.00561	--	0.00502	0.0321	--
MW-5	MW-5	03/08/01	**0.19**	0.15	<0.01	<0.01	0.84	0.014	--
	MW-5	06/05/01	**0.15**	0.16	<0.01	<0.01	1.1	0.011	--
	MW-5-DUP	06/05/01	**0.19**	0.31	<0.01	<0.01	0.92	0.017	--
	MW-5	01/17/01	**0.025**	0.0356	<0.2	<0.2	0.0179	0.00674	--
	MW-5	07/02/02	<0.015	0.0755	<0.005	<0.001	0.283	0.0196	--
CA MCL			0.05	1	0.05	0.05**	NE	5*	

TDS-total dissolved solids -- indicates not analyzed

1. The following analyses were performed by EMAX Laboratories, Inc., and Calscience Environmental Laboratories, Inc.
   Dissolved Metals (Arsenic, Barium, Chromium, Molybdenum, and Zinc) by EPA Method 6010B
   Dissolved Hexavalent Chromium by EPA Method 7199 in ug/l
2. < indicates that the analyte was not detected at a concentration above incated method detection limit.
3. CA MCL = California Maximum Contaminant level
4. NE = Not Established
5. * = Secondary MCL
6. ** = Hexavalent Chromium is included in the MCL for Total Chromium
7. **Bold** denotes exceedance of MCL

APPENDIX A

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS

Calscience
Environmental
Laboratories, Inc.

July 16, 2002

Reinhard Ruhmke
Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Subject: **Calscience Work Order No.: 02-07-0085**
Client Reference: Jeruis Webb South Gate

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/2/2002 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

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

Sincerely,

Calscience Environmental
Laboratories, Inc.
Marycarol Valenzuela
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Filtered
Method: EPA 6010B / EPA 7470A

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-4	**02-07-0085-2**	**07/02/02**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs1**

Comment(s): Mercury was analyzed on 7/5/02 3:37:59 PM with batch 020702lcs2

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Molybdenum	0.00688	0.00500	1		mg/L
Barium	0.0282	0.0100	1		mg/L	Nickel	0.00604	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0598	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

MW-2	**02-07-0085-3**	**07/02/02**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs1**

Comment(s): Mercury was analyzed on 7/5/02 3:41:02 PM with batch 020702lcs2

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	0.0682	0.0150	1		mg/L	Molybdenum	1.33	0.00500	1		mg/L
Barium	0.0232	0.0100	1		mg/L	Nickel	ND	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0263	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

MW-3	**02-07-0085-4**	**07/02/02**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs1**

Comment(s): Mercury was analyzed on 7/3/02 3:22:35 PM with batch 020702lcs2

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	0.0791	0.0150	1		mg/L	Molybdenum	0.915	0.005	1		mg/L
Barium	0.0455	0.0100	1		mg/L	Nickel	ND	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0157	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Filtered
Method: EPA 6010B / EPA 7470A

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-5	**02-07-0085-5**	**07/02/02**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs1**

Comment(s): Mercury was analyzed on 7/3/02 3:25:39 PM with batch 020702lcs2

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Molybdenum	0.283	0.005	1		mg/L
Barium	0.0755	0.0100	1		mg/L	Nickel	0.00605	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0196	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

MW-1	**02-07-0085-6**	**07/02/02**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs1**

Comment(s): Mercury was analyzed on 7/3/02 4:04:31 PM with batch 020702lcs2

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	0.229	0.015	1		mg/L	Molybdenum	0.562	0.005	1		mg/L
Barium	0.0588	0.0100	1		mg/L	Nickel	0.0178	0.0050	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0242	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Total Digestion
Method: EPA 6010B / EPA 7470A

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**099-04-008-870**	**N/A**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs2**

Parameter	Result	RL	DF	Qual	Units
Mercury	ND	0.00050	1		mg/L

Method Blank	**097-01-003-2,452**	**N/A**	**Aqueous**	**07/02/02**	**07/03/02**	**020702lcs1**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Molybdenum	ND	0.00500	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Nickel	ND	0.00500	1		mg/L
Barium	ND	0.0100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Silver	ND	0.00500	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Zinc	ND	0.0100	1		mg/L
Copper	ND	0.00500	1		mg/L	Lead	ND	0.0100	1		mg/L

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ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Filtered
Method: EPA 6010B / EPA 7470A

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-4 (DUP)	**02-07-0085-7**	**07/02/02**	**Aqueous**	**07/09/02**	**07/10/02**	**020709LCS5**

Comment(s): Mercury was analyzed on 7/10/2002 11:36:21 AM with batch 020709lcs3

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Molybdenum	0.00502	0.00500	1		mg/L
Barium	0.0261	0.0100	1		mg/L	Nickel	0.00553	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	0.00561	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0321	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

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ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Total Digestion
Method: EPA 6010B / EPA 7470A

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**099-04-008-872**	**N/A**	**Aqueous**	**07/09/02**	**07/10/02**	**020709lcs3**

Parameter	Result	RL	DF	Qual	Units
Mercury	ND	0.00050	1		mg/L

Method Blank	**097-01-003-2,456**	**N/A**	**Aqueous**	**07/09/02**	**07/10/02**	**020709LCS5**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Molybdenum	ND	0.00500	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Nickel	ND	0.00500	1		mg/L
Barium	ND	0.0100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Silver	ND	0.00500	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Zinc	ND	0.0100	1		mg/L
Copper	ND	0.00500	1		mg/L	Lead	ND	0.0100	1		mg/L

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ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: N/A
Method: EPA 7199

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Matrix	Date Collected	Date Prepared	Date Analyzed	QC Batch ID
MW-4	**02-07-0085-2**	**Aqueous**	**07/02/02**	**N/A**	**07/02/02**	**20702CRL1**

Parameter	Result	RL	DF	Qual	Units
Hexavalent Chromium	ND	1.0	1		ug/L

MW-2	**02-07-0085-3**	**Aqueous**	**07/02/02**	**N/A**	**07/02/02**	**20702CRL1**

Parameter	Result	RL	DF	Qual	Units
Hexavalent Chromium	ND	1.0	1		ug/L

MW-3	**02-07-0085-4**	**Aqueous**	**07/02/02**	**N/A**	**07/02/02**	**20702CRL1**

Parameter	Result	RL	DF	Qual	Units
Hexavalent Chromium	ND	1.0	1		ug/L

MW-5	**02-07-0085-5**	**Aqueous**	**07/02/02**	**N/A**	**07/02/02**	**20702CRL1**

Parameter	Result	RL	DF	Qual	Units
Hexavalent Chromium	ND	1.0	1		ug/L

MW-1	**02-07-0085-6**	**Aqueous**	**07/02/02**	**N/A**	**07/02/02**	**20702CRL1**

Parameter	Result	RL	DF	Qual	Units
Hexavalent Chromium	1.7	1.0	1		ug/L

Method Blank	**099-05-123-1,110**	**Aqueous**	**N/A**	**N/A**	**07/02/02**	**20702CRL1**

Parameter	Result	RL	DF	Qual	Units
Hexavalent Chromium	ND	1.0	1		ug/L

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ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-4	**02-07-0085-2**	**07/02/02**	**Aqueous**	**N/A**	**07/03/02**	**070302L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	10	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	10	1		ug/L	Tetrachloroethene	ND	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	140	1	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	5.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	17	1	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	1.3	1.0	1		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	106	86-118		Toluene-d8	107	88-110	
1,4-Bromofluorobenzene	103	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**02-07-0085-3**	**07/02/02**	**Aqueous**	**N/A**	**07/03/02**	**070302L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	50	5		ug/L	1,3-Dichloropropane	ND	5.0	5		ug/L
Benzene	ND	2.5	5		ug/L	2,2-Dichloropropane	ND	5.0	5		ug/L
Bromobenzene	ND	5.0	5		ug/L	1,1-Dichloropropene	ND	5.0	5		ug/L
Bromochloromethane	ND	5.0	5		ug/L	c-1,3-Dichloropropene	ND	2.5	5		ug/L
Bromodichloromethane	ND	5.0	5		ug/L	t-1,3-Dichloropropene	ND	2.5	5		ug/L
Bromoform	ND	5.0	5		ug/L	Ethylbenzene	ND	5.0	5		ug/L
Bromomethane	ND	50	5		ug/L	2-Hexanone	ND	50	5		ug/L
2-Butanone	ND	50	5		ug/L	Isopropylbenzene	ND	5.0	5		ug/L
n-Butylbenzene	ND	5.0	5		ug/L	p-Isopropyltoluene	ND	5.0	5		ug/L
sec-Butylbenzene	ND	5.0	5		ug/L	Methylene Chloride	ND	50	5		ug/L
tert-Butylbenzene	ND	5.0	5		ug/L	4-Methyl-2-Pentanone	ND	50	5		ug/L
Carbon Disulfide	ND	50	5		ug/L	Naphthalene	ND	50	5		ug/L
Carbon Tetrachloride	ND	2.5	5		ug/L	n-Propylbenzene	ND	5.0	5		ug/L
Chlorobenzene	ND	5.0	5		ug/L	Styrene	ND	5.0	5		ug/L
Chloroethane	ND	5.0	5		ug/L	1,1,1,2-Tetrachloroethane	ND	5.0	5		ug/L
Chloroform	ND	5.0	5		ug/L	1,1,2,2-Tetrachloroethane	ND	5.0	5		ug/L
Chloromethane	ND	50	5		ug/L	Tetrachloroethene	ND	5.0	5		ug/L
2-Chlorotoluene	ND	5.0	5		ug/L	Toluene	ND	5.0	5		ug/L
4-Chlorotoluene	ND	5.0	5		ug/L	1,2,3-Trichlorobenzene	ND	5.0	5		ug/L
Dibromochloromethane	ND	5.0	5		ug/L	1,2,4-Trichlorobenzene	ND	5.0	5		ug/L
1,2-Dibromo-3-Chloropropane	ND	25	5		ug/L	1,1,1-Trichloroethane	ND	5.0	5		ug/L
1,2-Dibromoethane	ND	5.0	5		ug/L	1,1,2-Trichloroethane	ND	5.0	5		ug/L
Dibromomethane	ND	5.0	5		ug/L	Trichloroethene	1700	50	50	D	ug/L
1,2-Dichlorobenzene	ND	5.0	5		ug/L	Trichlorofluoromethane	ND	50	5		ug/L
1,3-Dichlorobenzene	ND	5.0	5		ug/L	1,2,3-Trichloropropane	ND	25	5		ug/L
1,4-Dichlorobenzene	ND	5.0	5		ug/L	1,2,4-Trimethylbenzene	ND	5.0	5		ug/L
Dichlorodifluoromethane	ND	5.0	5		ug/L	1,3,5-Trimethylbenzene	ND	5.0	5		ug/L
1,1-Dichloroethane	ND	5.0	5		ug/L	Vinyl Acetate	ND	50	5		ug/L
1,2-Dichloroethane	ND	2.5	5		ug/L	Vinyl Chloride	ND	2.5	5		ug/L
1,1-Dichloroethene	20	5	5		ug/L	p/m-Xylene	ND	5.0	5		ug/L
c-1,2-Dichloroethene	50	5	5		ug/L	o-Xylene	ND	5.0	5		ug/L
t-1,2-Dichloroethene	ND	5.0	5		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	5.0	5		ug/L
1,2-Dichloropropane	ND	5.0	5		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	105	86-118		Toluene-d8	105	88-110	
1,4-Bromofluorobenzene	102	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-3	02-07-0085-4	07/02/02	Aqueous	N/A	07/03/02	070302L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	50	5		ug/L	1,3-Dichloropropane	ND	5.0	5		ug/L
Benzene	19	2	5		ug/L	2,2-Dichloropropane	ND	5.0	5		ug/L
Bromobenzene	ND	5.0	5		ug/L	1,1-Dichloropropene	ND	5.0	5		ug/L
Bromochloromethane	ND	5.0	5		ug/L	c-1,3-Dichloropropene	ND	2.5	5		ug/L
Bromodichloromethane	ND	5.0	5		ug/L	t-1,3-Dichloropropene	ND	2.5	5		ug/L
Bromoform	ND	5.0	5		ug/L	Ethylbenzene	ND	5.0	5		ug/L
Bromomethane	ND	50	5		ug/L	2-Hexanone	ND	50	5		ug/L
2-Butanone	ND	50	5		ug/L	Isopropylbenzene	ND	5.0	5		ug/L
n-Butylbenzene	ND	5.0	5		ug/L	p-Isopropyltoluene	ND	5.0	5		ug/L
sec-Butylbenzene	ND	5.0	5		ug/L	Methylene Chloride	ND	50	5		ug/L
tert-Butylbenzene	ND	5.0	5		ug/L	4-Methyl-2-Pentanone	ND	50	5		ug/L
Carbon Disulfide	ND	50	5		ug/L	Naphthalene	ND	50	5		ug/L
Carbon Tetrachloride	ND	2.5	5		ug/L	n-Propylbenzene	ND	5.0	5		ug/L
Chlorobenzene	ND	5.0	5		ug/L	Styrene	ND	5.0	5		ug/L
Chloroethane	ND	5.0	5		ug/L	1,1,1,2-Tetrachloroethane	ND	5.0	5		ug/L
Chloroform	ND	5.0	5		ug/L	1,1,2,2-Tetrachloroethane	ND	5.0	5		ug/L
Chloromethane	ND	50	5		ug/L	Tetrachloroethene	ND	5.0	5		ug/L
2-Chlorotoluene	ND	5.0	5		ug/L	Toluene	40	5	5		ug/L
4-Chlorotoluene	ND	5.0	5		ug/L	1,2,3-Trichlorobenzene	ND	5.0	5		ug/L
Dibromochloromethane	ND	5.0	5		ug/L	1,2,4-Trichlorobenzene	ND	5.0	5		ug/L
1,2-Dibromo-3-Chloropropane	ND	25	5		ug/L	1,1,1-Trichloroethane	ND	5.0	5		ug/L
1,2-Dibromoethane	ND	5.0	5		ug/L	1,1,2-Trichloroethane	ND	5.0	5		ug/L
Dibromomethane	ND	5.0	5		ug/L	Trichloroethene	1500	50	50	D	ug/L
1,2-Dichlorobenzene	ND	5.0	5		ug/L	Trichlorofluoromethane	ND	50	5		ug/L
1,3-Dichlorobenzene	ND	5.0	5		ug/L	1,2,3-Trichloropropane	ND	25	5		ug/L
1,4-Dichlorobenzene	ND	5.0	5		ug/L	1,2,4-Trimethylbenzene	ND	5.0	5		ug/L
Dichlorodifluoromethane	ND	5.0	5		ug/L	1,3,5-Trimethylbenzene	ND	5.0	5		ug/L
1,1-Dichloroethane	7.6	5.0	5		ug/L	Vinyl Acetate	ND	50	5		ug/L
1,2-Dichloroethane	2.7	2.5	5		ug/L	Vinyl Chloride	ND	2.5	5		ug/L
1,1-Dichloroethene	38	5	5		ug/L	p/m-Xylene	ND	5.0	5		ug/L
c-1,2-Dichloroethene	170	5	5		ug/L	o-Xylene	ND	5.0	5		ug/L
t-1,2-Dichloroethene	12	5	5		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	5.0	5		ug/L
1,2-Dichloropropane	ND	5.0	5		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	106	86-118		Toluene-d8	105	88-110	
1,4-Bromofluorobenzene	100	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-5	02-07-0085-5	07/02/02	Aqueous	N/A	07/03/02	070302L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	50	5		ug/L	1,3-Dichloropropane	ND	5.0	5		ug/L
Benzene	ND	2.5	5		ug/L	2,2-Dichloropropane	ND	5.0	5		ug/L
Bromobenzene	ND	5.0	5		ug/L	1,1-Dichloropropene	ND	5.0	5		ug/L
Bromochloromethane	ND	5.0	5		ug/L	c-1,3-Dichloropropene	ND	2.5	5		ug/L
Bromodichloromethane	ND	5.0	5		ug/L	t-1,3-Dichloropropene	ND	2.5	5		ug/L
Bromoform	ND	5.0	5		ug/L	Ethylbenzene	ND	5.0	5		ug/L
Bromomethane	ND	50	5		ug/L	2-Hexanone	ND	50	5		ug/L
2-Butanone	ND	50	5		ug/L	Isopropylbenzene	ND	5.0	5		ug/L
n-Butylbenzene	ND	5.0	5		ug/L	p-Isopropyltoluene	ND	5.0	5		ug/L
sec-Butylbenzene	ND	5.0	5		ug/L	Methylene Chloride	ND	50	5		ug/L
tert-Butylbenzene	ND	5.0	5		ug/L	4-Methyl-2-Pentanone	ND	50	5		ug/L
Carbon Disulfide	ND	50	5		ug/L	Naphthalene	ND	50	5		ug/L
Carbon Tetrachloride	ND	2.5	5		ug/L	n-Propylbenzene	ND	5.0	5		ug/L
Chlorobenzene	ND	5.0	5		ug/L	Styrene	ND	5.0	5		ug/L
Chloroethane	ND	5.0	5		ug/L	1,1,1,2-Tetrachloroethane	ND	5.0	5		ug/L
Chloroform	ND	5.0	5		ug/L	1,1,2,2-Tetrachloroethane	ND	5.0	5		ug/L
Chloromethane	ND	50	5		ug/L	Tetrachloroethene	ND	5.0	5		ug/L
2-Chlorotoluene	ND	5.0	5		ug/L	Toluene	7.8	5.0	5		ug/L
4-Chlorotoluene	ND	5.0	5		ug/L	1,2,3-Trichlorobenzene	ND	5.0	5		ug/L
Dibromochloromethane	ND	5.0	5		ug/L	1,2,4-Trichlorobenzene	ND	5.0	5		ug/L
1,2-Dibromo-3-Chloropropane	ND	25	5		ug/L	1,1,1-Trichloroethane	ND	5.0	5		ug/L
1,2-Dibromoethane	ND	5.0	5		ug/L	1,1,2-Trichloroethane	ND	5.0	5		ug/L
Dibromomethane	ND	5.0	5		ug/L	Trichloroethene	1700	50	50	D	ug/L
1,2-Dichlorobenzene	ND	5.0	5		ug/L	Trichlorofluoromethane	ND	50	5		ug/L
1,3-Dichlorobenzene	ND	5.0	5		ug/L	1,2,3-Trichloropropane	ND	25	5		ug/L
1,4-Dichlorobenzene	ND	5.0	5		ug/L	1,2,4-Trimethylbenzene	ND	5.0	5		ug/L
Dichlorodifluoromethane	ND	5.0	5		ug/L	1,3,5-Trimethylbenzene	ND	5.0	5		ug/L
1,1-Dichloroethane	ND	5.0	5		ug/L	Vinyl Acetate	ND	50	5		ug/L
1,2-Dichloroethane	ND	2.5	5		ug/L	Vinyl Chloride	ND	2.5	5		ug/L
1,1-Dichloroethene	8.9	5.0	5		ug/L	p/m-Xylene	ND	5.0	5		ug/L
c-1,2-Dichloroethene	58	5	5		ug/L	o-Xylene	ND	5.0	5		ug/L
t-1,2-Dichloroethene	8.6	5.0	5		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	5.0	5		ug/L
1,2-Dichloropropane	ND	5.0	5		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	105	86-118		Toluene-d8	106	88-110	
1,4-Bromofluorobenzene	102	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell		Date Received:	07/02/02
16735 Von Karman Avenue, Suite 200		Work Order No:	02-07-0085
Irvine, CA 90606-4953		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	**02-07-0085-6**	**07/02/02**	**Aqueous**	**N/A**	**07/03/02**	**070302L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	200	20		ug/L	1,3-Dichloropropane	ND	20	20		ug/L
Benzene	ND	10	20		ug/L	2,2-Dichloropropane	ND	20	20		ug/L
Bromobenzene	ND	20	20		ug/L	1,1-Dichloropropene	ND	20	20		ug/L
Bromochloromethane	ND	20	20		ug/L	c-1,3-Dichloropropene	ND	10	20		ug/L
Bromodichloromethane	ND	20	20		ug/L	t-1,3-Dichloropropene	ND	10	20		ug/L
Bromoform	ND	20	20		ug/L	Ethylbenzene	ND	20	20		ug/L
Bromomethane	ND	200	20		ug/L	2-Hexanone	ND	200	20		ug/L
2-Butanone	ND	200	20		ug/L	Isopropylbenzene	ND	20	20		ug/L
n-Butylbenzene	ND	20	20		ug/L	p-Isopropyltoluene	ND	20	20		ug/L
sec-Butylbenzene	ND	20	20		ug/L	Methylene Chloride	ND	200	20		ug/L
tert-Butylbenzene	ND	20	20		ug/L	4-Methyl-2-Pentanone	ND	200	20		ug/L
Carbon Disulfide	ND	200	20		ug/L	Naphthalene	ND	200	20		ug/L
Carbon Tetrachloride	ND	10	20		ug/L	n-Propylbenzene	ND	20	20		ug/L
Chlorobenzene	ND	20	20		ug/L	Styrene	ND	20	20		ug/L
Chloroethane	ND	20	20		ug/L	1,1,1,2-Tetrachloroethane	ND	20	20		ug/L
Chloroform	ND	20	20		ug/L	1,1,2,2-Tetrachloroethane	ND	20	20		ug/L
Chloromethane	ND	200	20		ug/L	Tetrachloroethene	72	20	20		ug/L
2-Chlorotoluene	ND	20	20		ug/L	Toluene	ND	20	20		ug/L
4-Chlorotoluene	ND	20	20		ug/L	1,2,3-Trichlorobenzene	ND	20	20		ug/L
Dibromochloromethane	ND	20	20		ug/L	1,2,4-Trichlorobenzene	ND	20	20		ug/L
1,2-Dibromo-3-Chloropropane	ND	100	20		ug/L	1,1,1-Trichloroethane	ND	20	20		ug/L
1,2-Dibromoethane	ND	20	20		ug/L	1,1,2-Trichloroethane	ND	20	20		ug/L
Dibromomethane	ND	20	20		ug/L	Trichloroethene	15000	200	200	D	ug/L
1,2-Dichlorobenzene	ND	20	20		ug/L	Trichlorofluoromethane	ND	200	20		ug/L
1,3-Dichlorobenzene	ND	20	20		ug/L	1,2,3-Trichloropropane	ND	100	20		ug/L
1,4-Dichlorobenzene	ND	20	20		ug/L	1,2,4-Trimethylbenzene	ND	20	20		ug/L
Dichlorodifluoromethane	ND	20	20		ug/L	1,3,5-Trimethylbenzene	ND	20	20		ug/L
1,1-Dichloroethane	48	20	20		ug/L	Vinyl Acetate	ND	200	20		ug/L
1,2-Dichloroethane	ND	10	20		ug/L	Vinyl Chloride	ND	10	20		ug/L
1,1-Dichloroethene	71	20	20		ug/L	p/m-Xylene	ND	20	20		ug/L
c-1,2-Dichloroethene	140	20	20		ug/L	o-Xylene	ND	20	20		ug/L
t-1,2-Dichloroethene	ND	20	20		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	20	20		ug/L
1,2-Dichloropropane	ND	20	20		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	107	86-118		Toluene-d8	107	88-110	
1,4-Bromofluorobenzene	101	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell		Date Received:	07/02/02
16735 Von Karman Avenue, Suite 200		Work Order No:	02-07-0085
Irvine, CA 90606-4953		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**099-10-006-5,513**	**N/A**	**Aqueous**	**N/A**	**07/03/02**	**070302L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	10	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	10	1		ug/L	Tetrachloroethene	ND	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	ND	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	5.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	103	86-118		Toluene-d8	107	88-110	
1,4-Bromofluorobenzene	102	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-4 (DUP)	02-07-0085-7	07/02/02	Aqueous	N/A	07/10/02	071002L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	10	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	10	1		ug/L	Tetrachloroethene	ND	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	150	1	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	5.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	20	1	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	1.6	1.0	1		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	109	86-118		Toluene-d8	100	88-110	
1,4-Bromofluorobenzene	99	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Project: Jeruis Webb South Gate

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**099-10-006-5,542**	**N/A**	**Aqueous**	**N/A**	**07/10/02**	**071002L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	10	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	10	1		ug/L	Tetrachloroethene	ND	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	ND	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	5.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	110	86-118		Toluene-d8	99	88-110	
1,4-Bromofluorobenzene	100	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Total Digestion
Method: EPA 6010B

Project: Jeruis Webb South Gate

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
02-06-1160-1	Aqueous	ICP 3300	07/02/02	07/03/02	070202ms1

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	98	104	80-120	6	0-20	
Arsenic	99	105	80-120	6	0-20	
Barium	95	100	80-120	5	0-20	
Beryllium	89	94	80-120	5	0-20	
Cadmium	87	92	80-120	5	0-20	
Chromium (Total)	91	96	80-120	6	0-20	
Cobalt	92	97	80-120	6	0-20	
Copper	89	97	80-120	8	0-20	
Lead	86	91	80-120	6	0-20	
Molybdenum	91	96	80-120	5	0-20	
Nickel	88	93	80-120	6	0-20	
Selenium	95	103	80-120	8	0-20	
Silver	101	108	80-120	7	0-20	
Thallium	86	91	80-120	6	0-20	
Vanadium	93	98	80-120	6	0-20	
Zinc	94	101	80-120	7	0-20	

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Quality Control - LCS/LCS Duplicate

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Project: Jeruis Webb South Gate

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Total Digestion
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-003-2,452	Aqueous	ICP 3300	07/02/02	07/03/02	020702lcs1

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	104	104	80-120	0	0-20	
Arsenic	104	104	80-120	0	0-20	
Barium	111	111	80-120	0	0-20	
Beryllium	102	101	80-120	1	0-20	
Cadmium	104	104	80-120	0	0-20	
Chromium (Total)	104	104	80-120	0	0-20	
Cobalt	112	112	80-120	0	0-20	
Copper	103	102	80-120	1	0-20	
Lead	105	104	80-120	1	0-20	
Molybdenum	103	102	80-120	0	0-20	
Nickel	109	109	80-120	0	0-20	
Selenium	100	100	80-120	0	0-20	
Silver	103	103	80-120	0	0-20	
Thallium	106	106	80-120	1	0-20	
Vanadium	101	101	80-120	1	0-20	
Zinc	106	105	80-120	0	0-20	

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Quality Control - Spike/Spike Duplicate

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Project: Jeruis Webb South Gate

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Total Digestion
Method: EPA 7470A

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
02-07-0071-1	Aqueous	Mercury	07/02/02	07/03/02	070202ms2

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	99	101	71-134	2	0-14	

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Quality Control - Laboratory Control Sample

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, CA 90606-4953

Project: Jeruis Webb South Gate

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: Total Digestion
Method: EPA 7470A

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-04-008-870	Aqueous	Mercury	07/03/02	020702 I	020702lcs2

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Mercury	0.0100	0.0101	101	90-122	

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Quality Control - Spike/Spike Duplicate

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Project: Jeruis Webb South Gate

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	N/A
Method:	EPA 7199

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-5	**Aqueous**	**IC 5**	**N/A**	**07/02/02**	**20702CRS1**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Hexavalent Chromium	104	103	70-130	1	0-25	

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Quality Control - Laboratory Control Sample

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Project: Jeruis Webb South Gate

Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: N/A
Method: EPA 7199

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-123-1,110	Aqueous	IC 5	07/02/02	NONE	20702CRL1

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Hexavalent Chromium	10	10	100	80-120	

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Brown and Caldwell
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Date Received: 07/02/02
Work Order No: 02-07-0085
Preparation: EPA 5030B
Method: EPA 8260B

Project: Jeruis Webb South Gate

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
02-07-0087-2	**Aqueous**	**GC/MS O**	**N/A**	**07/03/02**	**070302S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	102	72-127	0	0-25	
Carbon Tetrachloride	100	102	70-130	1	0-25	
Chlorobenzene	106	104	72-131	2	0-25	
1,2-Dichlorobenzene	108	106	70-130	2	0-25	
1,1-Dichloroethene	101	99	69-127	3	0-25	
Toluene	103	103	75-124	0	0-25	
Trichloroethene	104	104	60-137	1	0-25	
Vinyl Chloride	92	91	70-130	2	0-25	
Methyl-t-Butyl Ether (MTBE)	102	103	80-120	1	0-25	
Ethanol	96	97	60-140	1	0-25	

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Quality Control - LCS/LCS Duplicate

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Project: Jeruis Webb South Gate

Date Received:	07/02/02
Work Order No:	02-07-0085
Preparation:	EPA 5030B
Method:	EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-5,513	Aqueous	GC/MS O	N/A	07/03/02	070302L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	100	72-127	2	0-25	
Carbon Tetrachloride	101	100	70-130	1	0-25	
Chlorobenzene	105	104	72-131	1	0-25	
1,2-Dichlorobenzene	108	106	70-130	2	0-25	
1,1-Dichloroethene	97	94	69-127	3	0-25	
Toluene	103	101	75-124	2	0-25	
Trichloroethene	104	102	60-137	2	0-25	
Vinyl Chloride	88	87	79-118	1	0-25	
Methyl-t-Butyl Ether (MTBE)	101	98	80-120	2	0-25	
Tert-Butyl Alcohol (TBA)	100	97	60-140	3	0-25	
Diisopropyl Ether (DIPE)	96	95	60-140	2	0-25	
Ethyl-t-Butyl Ether (ETBE)	103	100	60-140	3	0-25	
Tert-Amyl-Methyl Ether (TAME)	103	101	60-140	2	0-25	
Ethanol	87	91	60-140	5	0-25	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 02-07-0085

Qualifier	Definition
D	The sample data was reported from a diluted analysis.
ND	Not detected at indicated reporting limit.

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CHAIN OF CUSTODY RECORD

Date 7-2-02

Page 1 of 1

LABORATORY CLIENT: Brown & Caldwell
ADDRESS: 16735 Von Karman
CITY: Irvine STATE: CA ZIP: 9
TEL: (949) 660-1070 FAX: (949) 474-0940 E-MAIL:
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING
SPECIAL INSTRUCTIONS:
LAB TO FILTER FOR METALS + CR VI
STANDARD TAT EXCEPT FOR HEX CR 24 HR. (Holding Time)

CLIENT PROJECT NAME / NUMBER: Jervis Webb South Gate
PROJECT CONTACT: Reinhart Ruhnke
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.: 22946.100
LAB USE ONLY: 07-0085
COOLER RECEIPT TEMP = 2 °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EOB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	hold	Cr VI (24 Hr Holding Time)		
1		Trip Blank	–	–	H2O	2														X			
2		MW-4	7-2-02	0950	GW	5					X						X				X		
3		MW-2	7-2-02	1110	GW	5					X						X				X		
4		MW-3	7-2-02	1215	GW	5					X						X				X		
5		MW-5	7-2-02	1345	GW	5					X						X				X		
6		MW-1	7-2-02	1445	GW	5					X						X				X		
7		Temp Blank	–	–	BW	1																	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		7-2-02	1609
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: 7/2/02	Time: 1604

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

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X-Sender: mvalenzuela@mail.cel.com
X-Mailer: QUALCOMM Windows Eudora Pro Version 4.2.2
Date: Mon, 08 Jul 2002 15:28:21 -0700
To: jtorres@calscience.com
From: mvalenzuela@calscience.com (Marycarol Valenzuela)
Subject: Fwd: Sample to be analyzed - P.O. No: 22946-100

From: "Crews, Mike" <MCrews@BrwnCald.com>
To: '"mvalenzuela@calscience.com"' <mvalenzuela@calscience.com>
Subject: Sample to be analyzed - P.O. No: 22946-100
Date: Mon, 8 Jul 2002 14:54:49 -0700
X-Mailer: Internet Mail Service (5.5.2653.19)

Marycarol,

Per our conversation earlier today (07-08-02), please analyze "MW-4 (dup)" using the remaining water collected as sample "MW-4". Please analyze the sample for VOCs (8260B), and Title 22 metals (6010B - lab filtered for metals) on a normal turn-around time. Call me if you have any questions at (949) 260-6140. Thank you.

Michael Crews
Geologist

Brown and Caldwell
16735 Von Karman Avenue, Suite 200
Irvine, California 92606
(949) 260-6140
(949) 474-0940 Fax
mcrews@brwncald.com

APPENDIX B

WELL MONITORING AND PURGING DATA FORMS

WELL MONITORING REPORT

Page _____ of _____

Project No.: 22946.100 Location: SOUTH GATE Date: 7.2.02

Client/Project: (RELIABLE STEEL) SERVIS B WEBB of CA BC Personnel: NEMREK Equipment Serial Number: MMC. B.1974

Well Number	Time	First Depth to Water (feet)	Second Depth to Water (feet)	TD Depth to Product (feet)	Apparent Product Thickness (feet)	Comments:
MW-4	0807	46.94		69.20		
MW-2	0821	45.70		67.85		
MW-3	0826	45.82		70.0		
MW-5	0831	47.41		69.05		
MW-1	0834	46.95		69.95		

BROWN AND CALDWELL
IRVINE/GLENDALE
PURGING DATA FORM
PAGE 2 OF 2

Date: 7-2-02
Well No.: MW-4
Project Number: 22946
Sample Order: 1

Time 0910 START	Temp. (°C) °F	pH (units)	Conductivity (µmhos/cm) x 1000	Gallons removed	Turbidity[a] /color	Other (DO reading, or other project specific info.)	DTW 46.97
0915	78.1	6.96	4.31	~500 mL	CLOUDY (SANDY IN COLOR)		
0920	79.0	7.00	4.55	~1000 mL	"		46.98
0925	79.1	7.01	4.21	~1500 mL	"		47.00
0930	78.8	7.01	4.08	~2.0 GAL	"		47.00
0935	81.0	7.03	4.29	~2.25 GAL	SEMI-CLOUDY		46.98
0940	82.3	7.04	4.29	~2.50 GAL	"		46.98
0945	80.6	7.00	4.31	~2.75 GAL	"		46.97

[a] For example: clear, some sediment, very turbid, etc.

Any odor noted? NONE

Any other observations? PUMP 3' OFF BOTTOM OF WELL FLOW RATE ~ 100 mL/MIN 150 Hz

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BROWN AND CALDWELL
IRVINE/GLENDALE
PURGING DATA FORM
PAGE 2 OF 2

Date: 7-2-02 Project Number: 22994

Well No.: MW-2 Sample Order: 2

Time START 1030	Temp. (°C) °F	pH (units)	Conductivity (µmhos/cm) X1000	ML ~~Gallons~~ removed	Turbidity* /color	Other (DO reading, or other project specific info.)
1035	88.4	7.43	3.08	~500 ml	Cloudy/Brownish Gray	
1040	85.3	7.34	3.07	~1000 ml	Cloudy/Muddy in Color	DTW 46.4
1050	86.3	7.76	3.26	~2.0 Gal	"	
1055	80.5	7.39	2.91	~2.25 Gal	"	
1100	79.5	7.32	2.99	~2.50 Gal	"	"
1105	80.3	7.35	3.10	~3.0 Gal	"	"
1110	82.5	7.38	3.08	~3.25 Ga	"	"
SAMPLE TIME		11:10				

*For example: clear, some sediment, very turbid, etc.

Any odor noted? NONE

Any other observations? PUMP SET 3'0" OFF BOTT. AT ~ 147 HZ 100ml/MIN
1045: LOST FLOW (CONTROLLER TOO HOT [PUT IN SHADE] RESTART

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BROWN AND CALDWELL
IRVINE/GLENDALE
PURGING DATA FORM
PAGE 2 OF 2

Date: 7-2-02 Project Number: 22946

Well No.: MW-3 Sample Order: 3

Time	Temp. (°C)	pH (units)	Conductivity (µmhos/cm)	Gallons removed	Turbidity* /color	Other (DO reading, or other project specific info.)
START 1145	°F		X1000			DTW 46.90
1150	77.5	7.61	1.49	~1000 mL	Cloudy	47.03
1155	83.9	7.94	1.57	~2000 mL	Charcoal Color	46.93
1200	79.4	7.62	1.52	~3000 mL	" "	47.00
1205	79.4	7.60	1.50	~1.5 Gal	" "	47.00
1210	80.7	7.60	1.55	~2.0 Gal	" "	47.05
1215	79.9	7.63	1.51	~2.5 Gal	" "	47.03
SAMPLE	TIME	12:15				

7-2-02

*For example: clear, some sediment, very turbid, etc.

Any odor noted?

Any other observations? PUMP SET 3'0" OFF B.O.W. FLOW RATE ~200 mL/min 152 HR

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BROWN AND CALDWELL
IRVINE/GLENDALE
PURGING DATA FORM
PAGE 2 OF 2

Date: 7-2-02 Project Number: 22946
Well No.: MW-5 Sample Order: 4

Time	Temp. (°C) °F	pH (units)	Conductivity (µmhos/cm) X1000	Gallons removed	Turbidity* /color	Other (DO reading, or other project specific info.) DTW
1310	START		6.70			47.40
1315	88.8	7.14	6.70	500 ml	CLEAR	47.40
1320	85.4	6.91	6.82	1000 ml	"	47.45
1325	88.7	7.01	6.75	1500 ml	"	47.45
1330	88.8	6.94	6.91	2000 ml	SEMI-CLEAR	47.45
1335	89.5	6.92	6.82	2.5 GAL	SEMI " / SLIGHT	BROWNISH
1340	88.0	6.82	6.70	3.0 GAL	SEMI-CLEAR	—
1345	90.0	6.89	6.80	~4.0 GAL	"	
SAMPLE	TIME	1345				

*For example: clear, some sediment, very turbid, etc.

Any odor noted?

Any other observations? PUMP SET ~ 4'-0" off B.O.W. FLOW RATE ~ 100 ml/min 152 Hz

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BROWN AND CALDWELL
IRVINE/GLENDALE
PURGING DATA FORM
PAGE 2 OF 2

Date: 7-2-02 Project Number: 22946
Well No.: MW-1 Sample Order: 5

	Time	Temp. °C °F	pH (units)	Conductivity (µmhos/cm) x1000	Gallons removed	Turbidity[a] /color	Other (DO reading, or other project specific info.) DTW
START	1415			?			47.00
	1420	86.0	7.63	2.09	~500 mL	CLEAR	47.33
	1425	84.3	7.56	1.72	~1000 mL	"	47.25
	1430	86.2	7.57	1.78	~1500 mL	CLEAR	47.22
	1435	85.7	7.55	1.69	~2000 mL	"	47.22
	1440	86.7	7.58	1.74	1.5 GAL.	"	"
	1445	80.7	7.52	1.63	~1.75 GAL	"	47.20
	SAMPLE	TIME	14:45				

[a] For example: clear, some sediment, very turbid, etc.

7-2-02

Any odor noted? NONE

Any other observations? PUMP SET AT ~3'-0" FROM BOTTOM OF WELL
FLOW RATE ~100 ML/MIN

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APPENDIX C

WASTE MANIFEST

Copies of the Waste Manifests will be sent under separate cover once they have been received.