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ANNUAL GROUNDWATER MONITORING REPORT
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Prepared for:

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Annual Groundwater Monitoring Report
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

1.0 INTRODUCTION

ChevronTexaco Exploration and Production Company (ChevronTexaco), as successor to Texaco Exploration and Production Inc. (Texaco), has retained Larson and Associates, Inc. (LA) to conduct chloride plume delineation, groundwater remediation and monitoring activities at its former Cooper-Jal Unit South Injection Station (Site). In September of 2001, ChevronTexaco sold its interest in the Cooper-Jal Unit to SDG Resources. However, it retained responsibility to remediate the chloride impact to groundwater. The Site is located approximately 5.5 miles northwest of Jal, New Mexico, and is situated in Unit Letter J (NW/4, NW/4, SE/4), Section 24, Township 24 South, Range 36 East, Lea County, New Mexico. Figure 1 presents a Site location and topographic map.

2.0 BACKGROUND

From September 10, 1997 to May 14, 1998 fourteen (14) monitoring wells were installed at the Site, in order to investigate soil and groundwater impacts. An electromagnetic (EM-34) terrain conductivity survey was conducted on January 13-14, 1998, and May 7, 1998, to determine areas of elevated terrain conductivity prior to monitoring well drilling. Details of the investigations were submitted to the New Mexico Oil Conservation Division (NMOCD) in a Subsurface Environmental Assessment Report dated June 1998.

In that report, Texaco proposed to implement a groundwater recovery program to reduce the levels of chloride, total dissolved solids (TDS) and sulfate in the groundwater, by installing approximately three (3) groundwater recovery wells in the area of highest chloride, TDS and sulfate impact. The actual number and location of recovery wells would be determined by a pumping test, to be performed following installation of the initial recovery well. Recovered fluid from the recovery well would be conveyed to the Cooper-Jal Unit South Injection Station for placement into the injection stream. Groundwater monitoring, on a semi-annual basis, was also proposed, with an annual report to be prepared and submitted yearly to the NMOCD.

The proposed activities were approved by the NMOCD in a letter dated September 17, 1998. In that letter, the NMOCD requested submittal of a work plan to delineate the extent of the chloride, TDS and sulfate impact. On November 18, 1998, a "Work Plan for Plume Delineation and Modification to Proposed Groundwater Monitoring Schedule" was submitted to the NMOCD. In addition to the previously proposed Recovery Wells, the work plan included installation of additional down gradient monitoring wells, in order to delineate the chloride, TDS and sulfate plume at the Site. The groundwater-monitoring schedule was modified to include semi-annual monitoring of down gradient monitoring wells (MW-8, MW-9, MW-9A, MW-10 and MW-11) and annual monitoring of the remaining wells. All monitoring wells will be sampled and analyzed for major anions and cations, and TDS. The proposed activities were approved by the NMOCD in a letter dated February 2, 1999, and included detailed directives for monitoring well installations and reporting requirements.

On April 18, 2003, an Annual Groundwater Monitoring and Plume Delineation Report was submitted to the NMOCD that included details of the installation of monitoring wells MW-11, MW-12, and MW-13, and recovery wells RW-1 and RW-2. The surface completion of the recovery wells (RW-1 and RW-2) will be performed after approval by the NMSE to initiate remediation.

3.0 CURRENT ACTIVITIES

3.1 Groundwater Monitoring

LA completed monitoring at the Site for the period of May 2003 through November 2003. Depth to groundwater measurements were collected from all deep monitoring wells (MW-1 through MW-13), shallow monitoring wells (MW-2A, MW-4A, MW-5A and MW-9A), and recovery wells (RW-1 and RW-2) on May 20, 2003 and November 24, 2003.

On the May 20 groundwater monitoring event, depth to groundwater in the deep wells ranged from 131.03 feet (MW-11) to 144.90 feet (MW-13) below top of casing (TOC), and in the shallow wells, from 132.55 feet (MW-9A) to 137.24 feet (MW-5A) below TOC. On the November 24 event, depth to groundwater ranged from 130.57 feet (MW-11) to 144.37 feet (MW-13) below TOC in the deep monitoring wells, and from 132.10 feet (MW-9A) to 136.91 feet (MW-5A) below TOC in the shallow monitoring wells. The groundwater gradient was approximately 0.002 feet per foot in the deep wells during the May event, and 0.004 feet per foot in the shallow wells. During the November event, the groundwater gradient in both the upper and lower wells was approximately 0.003 feet per foot. Groundwater flow at the Site has remained consistent, and is from the northwest to the southeast in both the upper and lower portions of the aquifer. Groundwater flow in the shallow aquifer during the May 2003 monitoring event, radiates to the north, northeast and southeast from the recovery wells (RW-1 and RW-2). Table 1 provides a summary of depth to groundwater measurements. Figure 3 shows the groundwater gradient of the shallow zone on May 20, 2003. Figure 4 shows the groundwater gradient of the deep zone on May 20, 2003. Figure 7 shows the groundwater gradient of the shallow zone on November 24, 2003. Figure 8 shows the groundwater gradient of the deep zone on November 24, 2003.

Groundwater samples were collected on May 21 and 22, 2003, from deep monitoring wells MW-1 through MW-13, shallow monitoring wells MW-2A, MW-4A, MW-5A and MW-9A, and recovery wells RW-1 and RW-2. A duplicate sample was collected from monitoring well MW-10. The groundwater samples were submitted under chain-of-custody control to TraceAnalysis, Inc.(Trace), and analyzed for anions, cations and TDS. Prior to sample collection, the wells were purged of a minimum of three (3) casing volumes of groundwater. The groundwater samples were collected using dedicated disposable PVC bailers. Table 2 presents a summary of the general chemistry analysis. Appendix A presents the laboratory report.

Referring to Table 2, chloride was above the New Mexico Water Quality Conservation Commission (NMWQCC) standard of 250 milligrams per liter (mg/L) in groundwater from MW-1 (6,600 mg/L), MW-2 (2,550 mg/L), MW-4 (11,300 mg/L), MW-4A (844 mg/L), MW-5 (3,170 mg/L), MW-13 (944 mg/L), RW-1 (2,410 mg/L), and RW-2 (1,580 mg/L). Fluoride was above the NMWQCC standard of 1.6 mg/L in groundwater from MW-2 (2.04 mg/L), MW-9 (1.75 mg/L), MW-11 (1.74 mg/L), and RW-1 (2.46 mg/L). Nitrate was above the NMWQCC standard of 10 mg/L in groundwater from MW-1 (10.90 mg/L) and MW-4 (12.30 mg/L). Sulfate was above the NMWQCC standard of 600 mg/L in groundwater from MW-1 (875 mg/L) and MW-4 (1,370 mg/L). TDS exceeded the NMWQCC standard of 1,000 mg/L in groundwater from MW-1 (13,200 mg/L), MW-2 (5,880 mg/L), MW-4 (62,500 mg/L), MW-4A (2,200 mg/L), MW-5 (7,860 mg/L), MW-13 (3,060 mg/L), RW-1 (5,260 mg/L), and RW-2 (4,310 mg/L). Figure 5 presents a chloride isopleth map of the shallow zone on May 21-22, 2003. Figure 6 presents a chloride isopleth map of the deep zone on May 21-22, 2003.

On November 25 and 26, 2003, groundwater samples were collected from all deep monitoring wells (MW-1 through MW-13), all shallow monitoring wells (MW-2A, MW-4A, MW-5A and MW-9A), and recovery wells RW-1 and RW-2. The groundwater samples were submitted under chain-of-custody control to Trace, and analyzed for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX), anions, cations, and TDS. Prior to sample collection, the wells were purged a minimum of three (3) casing volumes of groundwater. The groundwater samples were collected using dedicated disposable PVC bailers. Table 2 presents a summary of the general chemistry analysis. Table 3 presents a summary of the BTEX analysis. Appendix A presents the laboratory report.

Referring to Table 2, chloride concentrations exceeded the NMWQCC standard of 250 mg/L in groundwater from monitoring wells MW-1 (402 mg/L), MW-2 (3,330 mg/L), MW-4 (12,100 mg/L),

MW-4A (1,060 mg/L), MW-5 (5,120 mg/L), MW-13 (1,460 mg/L), RW-1 (1,990 mg/L), and RW-2 (1.480 mg/L). Fluoride exceeded the NMWQCC standard of 1.60 mg/L in groundwater from monitoring wells MW-1 (7.30 mg/L), MW-9 (1.99 mg/L), and MW-11 (1.83 mg/L). Nitrate was above the NMWQCC standard of 10 mg/L in groundwater from MW-4 (12.30 mg/L) and RW-1 (20.0 mg/L). Sulfate exceeded the NMWQCC standard of 600 mg/L in groundwater from MW-4 (1,400 mg/L) and MW-5 (739 mg/L). TDS exceeded the NMWQCC standard of 1,000 mg/L in groundwater from MW-1 (1,158 mg/L), MW-2 (6,760 mg/L), MW-4 (54,450 mg/L), MW-4A (2,585 mg/L), MW-5 (11,940 mg/L), MW-13 (3,445 mg/L), RW-1 (5,050 mg/L), and RW-2 (3,535 mg/L). Figure 9 presents an isopleth map of chloride concentrations in the shallow zone during the November 2003 sampling event. Figure 10 presents an isopleth map of chloride concentrations in the deep zone during the November 2003 sampling event.

With the installation of monitoring well MW-11, the chloride plume has been delineated to the southeast in both the shallow and deep portions of the aquifer. Chloride concentrations in all monitoring wells (MW-1 through MW-10) during the monitoring period decreased in comparison to chloride concentrations reported in the June 1998 Subsurface Environmental Assessment Report, with the exception of well MW-4 (12,100 mg/L), which has maintained a consistent chloride concentration. Groundwater collected from downgradient monitoring well MW-11 has shown a decrease in chloride concentrations since initial sampling in January 1999. Groundwater collected from upgradient monitoring wells MW-12 and MW-13 have shown a steady increase in chloride concentrations since initial sampling in May 2002. Sample results have shown a decreasing trend of chloride concentrations in groundwater from recovery wells RW-1 and RW-2 during 2003.

Referring to Table 3, BTEX concentrations in groundwater from all monitoring and recovery wells were below the test method detection limit, except for well MW-9, with a xylene concentration of 0.0012 mg/L. The NMWQCC human health standard for xylene is 0.062 mg/L.

3.2 Waste Management and Disposition

Purged groundwater from the sampling activities was disposed at an NMOCD permitted salt water disposal (SWD) facility operated by Chapparel Services, Inc., located in Eunice, New Mexico. Approximately 75 gallons of purged groundwater was disposed following each sampling event, for a total of approximately 150 gallons.

3.3 Remediation System Installation and Start-up

Texaco submitted applications to pump water from wells RW-1 and RW-2 to the State of New Mexico, Office of the State Engineer (NMSE) for remediation of the chlorides, subject to conditions. Upon approval of the applications, ChevronTexaco will initiate chloride remediation in accordance with the conditions stipulated by the NMSE.

4.0 CONCLUSIONS

1. On the May 20 groundwater monitoring event, depth to groundwater in the deep wells ranged from 131.03 feet (MW-11) to 144.90 feet (MW-13) below top of casing (TOC), and in the shallow wells, from 132.55 feet (MW-9A) to 137.24 feet (MW-5A) below TOC.
2. On the November 24 event, depth to groundwater ranged from 130.57 feet (MW-11) to 144.37 feet (MW-13) below TOC in the deep monitoring wells, and from 132.10 feet (MW-9A) to 136.91 feet (MW-5A) below TOC in the shallow monitoring wells.
3. The groundwater gradient was approximately 0.002 feet per foot in the deep wells during the May event, and 0.004 feet per foot in the shallow wells.
4. During the November event, the groundwater gradient in both the upper and lower wells was approximately 0.003 feet per foot.
5. Groundwater flow at the Site has remained consistent, and is from the northwest to the southeast in both the upper and lower portions of the aquifer.
6. Groundwater flow in the shallow aquifer during the May 2003 monitoring event, radiates to

the north, northeast and southeast from the recovery wells (RW-1 and RW-2).

7. From the May 2003 sampling event, chloride was above the NMWQCC standard of 250 milligrams per liter (mg/L) in groundwater from MW-1 (6,600 mg/L), MW-2 (2,550 mg/L), MW-4 (11,300 mg/L), MW-4A (844 mg/L), MW-5 (3,170 mg/L), MW-13 (944 mg/L), RW-1 (2,410 mg/L), and RW-2 (1,580 mg/L).
8. From the May 2003 sampling event, fluoride was above the NMWQCC standard of 1.6 mg/L in groundwater from MW-2 (2.04 mg/L), MW-9 (1.75 mg/L), MW-11 (1.74 mg/L), and RW-1 (2.46 mg/L).
9. From the May 2003 sampling event, nitrate was above the NMWQCC standard of 10 mg/L in groundwater from MW-1 (10.90 mg/L) and MW-4 (12.30 mg/L).
10. From the May 2003 sampling event, sulfate was above the NMWQCC standard of 600 mg/L in groundwater from MW-1 (875 mg/L) and MW-4 (1,370 mg/L).
11. From the May 2003 sampling event, TDS exceeded the NMWQCC standard of 1,000 mg/L in groundwater from MW-1 (13,200 mg/L), MW-2 (5,880 mg/L), MW-4 (62,500 mg/L), MW-4A (2,200 mg/L), MW-5 (7,860 mg/L), MW-13 (3,060 mg/L), RW-1 (5,260 mg/L), and RW-2 (4,310 mg/L).
12. From the November 2003 sampling event, chloride concentrations exceeded the NMWQCC standard of 250 mg/L in groundwater from monitoring wells MW-2 (3,330 mg/L), MW-4 (12,100mg/L), MW-4A (1,060 mg/L), MW-5 (5,120 mg/L), MW-13 (1,460 mg/L), RW-1 (1,990 mg/L), and RW-2 (1.480 mg/L).
13. Nitrate was above the NMWQCC standard of 10 mg/L in groundwater from MW-4 (12.30 mg/L) and RW-1 (20.0 mg/L).
14. From the November 2003 sampling event, fluoride exceeded the NMWQCC standard of 1.60 mg/L in groundwater from monitoring wells MW-1 (7.03 mg/L), MW-9 (1.99 mg/L), and MW-11 (1.83 mg/L).
15. From the November 2003 sampling event, sulfate exceeded the NMWQCC standard of 600

mg/L in groundwater from MW-4 (1,400 mg/L) and MW-5 (739 mg/L).

15. From the November 2003 sampling event, TDS exceeded the NMWQCC standard of 1,000 mg/L in groundwater from MW-1 (1,158 mg/L), MW-2 (6,760 mg/L), MW-4 (54,450 mg/L), MW-4A (2,585 mg/L), MW-5 (11,940 mg/L), MW-13 (3,445 mg/L), RW-1 (5,050 mg/L), and RW-2 (3,535 mg/L).
16. The chloride plume has been delineated to the southeast in both the shallow and deep portions of the aquifer.
17. Chloride concentrations in all monitoring wells (MW-1 through MW-10) during the monitoring period decreased in comparison to chloride concentrations reported in the June 1998 Subsurface Environmental Assessment Report, with the exception of well MW-4 (12,100 mg/L), which has maintained a consistent chloride concentration.
18. Groundwater collected from downgradient monitoring well MW-11 has shown a decrease in chloride concentrations since initial sampling in January 1999.
19. Groundwater collected from upgradient monitoring wells MW-12 and MW-13 have shown a steady increase in chloride concentrations since initial sampling in May 2002.
20. Sample results have shown a decreasing trend of concentrations of chloride in groundwater from recovery wells RW-1 and RW-2 during 2003.

TABLES

Table 1: Summary of Depth-to-Groundwater Measurements from Monitoring and Recovery Wells
Texaco Exploration and Production Inc., Cooper-Jal Unit South Water Station
NE/4, NE/4, Section 25, Township 24 South, Range 36 East
Lea County, New Mexico

Date	MW-1	MW-2	MW-2A	MW-3	MW-4	MW-4A	MW-5	MW-5A	MW-6	MW-7	MW-8	MW-9	MW-9A
05/18/98	135.05	135.00	134.80	132.65	136.01	135.68	137.42	137.20	136.73	136.19	134.36	132.89	132.65
03/23/99	--	--	--	--	--	--	--	--	--	--	--	--	--
05/21/99	--	--	--	--	--	135.65	--	--	--	--	--	--	--
05/25/99	134.93	134.79	134.73	132.52	135.57	135.90	137.28	137.11	136.61	135.98	134.21	132.68	132.43
02/08/01	134.80	134.63	134.58	132.40	135.87	135.34	137.18	136.99	136.50	135.87	134.08	132.52	132.37
05/10/02	134.77	134.65	134.50	132.40	135.67	135.30	137.10	136.90	136.40	135.67	133.95	137.20	137.20
10/22/02	134.89	134.72	134.66	132.49	135.90	135.51	137.04	137.17	136.57	135.89	134.18	132.56	132.35
05/20/03	135.17	134.95	135.80	132.75	136.00	135.55	137.45	137.24	136.85	136.12	134.38	132.75	132.55
11/24/03	134.70	134.56	134.60	132.29	135.70	135.31	137.01	136.91	136.38	135.71	133.99	132.35	132.10

Date	MW-10	MW-11	MW-12	MW-13	RW-1	RW-2
05/18/98	137.18	--	--	--	--	--
03/23/99	--	131.12	--	--	--	--
05/21/99	--	--	--	--	134.32	--
05/25/99	137.04	130.91	--	--	134.24	--
02/08/01	136.88	130.11	--	--	134.15	135.58
05/10/02	136.80	135.60	139.57	144.45	134.00	135.55
10/22/02	136.91	130.76	139.73	144.49	134.17	135.55
05/20/03	137.13	131.03	139.72	144.90	134.40	135.58
11/24/03	136.71	130.57	139.69	144.37	134.02	135.54

Notes: All measurements recorded in feet below top of well casing

1. *: Indicates shallow monitoring well

Table 2: Summary of General Chemistry Analysis of Groundwater Samples from Monitoring and Recovery Wells
Texaco Exploration and Production Inc., Cooper-Jal Unit South Water Station
NW/4, SE/4, Section 24, Township 24 South, Range 36 East
Lea County, New Mexico

Well Number	Sample Date	pH s.u.	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Specific Conductance (umhos/cm)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness
	NMWQCC Standard						**250**	**1.60**	**10**	**600**					**1000**	
MW-1	09/16/97	7.1	--	--	280	--	8,500	--	--	1,100	520.0	630.0	50.00	4,300.0	15,000	3,900
	02/25/98	7.4	--	--	280	--	5,600	--	--	570	285.0	520.0	116.00	2,900.0	9,300	2,850
	02/14/01	--	<1.0	306	306	28,000	11,000	4.40	7.70	1,000	374.0	780.0	236.00	5,236.0	20,000	--
	05/17/02	--	<1.0	208	208	--	237	5.83	3.28	86.9	45.7	20.1	11.90	184.0	784	--
	10/23/02	--	--	--	--	--	168	--	--	96.8	--	--	--	--	696	--
	05/21/03	--	<1.0	290	290	--	6,600	<8.00	10.90	875	238.0	475.0	96.50	3,410.0	13,200	--
	11/25/03	--	<1.0	250	250	--	402	7.03	2.72	125	19.2	22.0	18.50	294.0	1,158	--
MW-2	02/25/98	7.4	--	--	210	--	5,900	--	--	760	840.0	380.0	30.00	2,650.0	9,400	3,660
	04/09/98	7.0	--	--	290	--	8,200	--	--	990	1,100.0	490.0	29.00	3,430.0	15,000	4,800
	02/14/01	--	<1.0	184	184	20,000	7,400	2.30	4.10	870	1,025.0	488.0	48.50	3,189.0	15,000	--
	05/17/02	--	<1.0	160	160	--	3,200	1.72	3.18	483	587.0	239.0	35.60	1,160.0	6,040	--
	10/23/02	--	--	--	--	--	2,920	--	--	451	--	--	--	--	6,770	--
	05/22/03	--	<1.0	158	158	--	2,550	2.04	3.87	386	448.0	176.0	20.00	1,020.0	5,880	--
	11/25/03	--	<1.0	160	160	--	3,330	<4.00	5.63	446	555.0	227.0	32.00	1,120.0	6,760	--
MW-2A	02/26/98	7.9	--	--	190	--	280	--	--	330	144.0	36.0	5.70	215.0	1,200	508
	02/14/01	--	<1.0	162	162	630	44	1.30	2.30	76	64.4	16.7	7.02	45.5	390	--
	05/15/02	--	<1.0	176	176	--	36.6	<1.00	2.34	79.1	57.6	13.9	4.35	43.8	435	--
	10/23/02	--	--	--	--	--	44.3	--	--	97	--	--	--	--	425	--
	05/22/03	--	<1.0	168	168	--	40.5	<1.00	2.18	75.5	67.2	14.3	3.76	47.9	418	--
	11/25/03	--	<1.0	166	166	--	43.1	1.00	2.23	77.4	51.7	14.4	3.98	43.8	452	--
MW-3	02/27/98	7.9	--	--	190	--	452	--	--	406	200.0	50.0	11.00	237.0	1,500	705
	02/14/01	--	<1.0	158	158	640	34	1.60	2.40	100	54.5	19.0	7.61	48.6	440	--
	05/17/02	--	<1.0	158	158	--	30.6	1.56	2.35	102	55.6	18.4	5.04	50.0	433	--
	10/23/02	--	--	--	--	--	35.4	--	--	104	--	--	--	--	419	--
	05/22/03	--	<1.0	156	156	--	30.6	1.17	2.25	96.3	53.2	17.8	5.39	54.6	435	--
	11/25/03	--	<1.0	160	160	--	31.4	1.35	2.30	103	46.5	18.0	5.19	51.7	440	--
MW-4	02/27/98	7.1	--	--	230	--	12,000	--	--	1,300	1,700.0	880.0	48.00	5,300.0	22,000	7,870
	04/09/98	6.7	--	--	240	--	13,000	--	--	1,500	1,740.0	840.0	42.00	5,400.0	23,000	7,800
	02/14/01	--	<1.0	232	232	38,000	15,000	1.80	6.80	1,500	--	--	--	--	29,000	--
	05/17/02	--	<1.0	232	232	--	11,300	2.01	6.09	1,380	1,610.0	814.0	60.90	4,310.0	22,600	--
	10/23/02	--	--	--	--	--	11,300	--	--	1,320	--	--	--	--	23,200	--
	05/22/03	--	<1.0	220	220	--	11,300	<10.00	12.30	1,370	1,450.0	659.0	47.30	4,140.0	62,500	--
	11/26/03	--	<1.0	218	218	--	12,100	<8.00	12.30	1,400	1830.0	889.0	62.00	4,620.0	54,450	--
MW-4A	02/27/98	7.6	--	--	180	--	1,600	--	--	410	470.0	130.0	11.00	620.0	3,300	1,710
	02/14/01	--	<1.0	154	154	5,200	1,600	1.40	2.80	210	--	--	--	--	4,000	--
	05/15/02	--	<1.0	156	156	--	577	<1.00	2.23	121	200.0	49.5	10.30	125.0	1,610	--
	10/23/02	--	--	--	--	--	478	--	--	114	--	--	--	--	1,430	--
	05/22/03	--	<1.0	154	154	--	844	<1.00	2.43	160	279.0	58.9	10.10	248.0	2,200	--
	11/26/03	--	<1.0	158	158	--	1,060	<4.00	5.82	182	337.0	79.3	15.20	329.0	2,585	--

Table 2: Summary of General Chemistry Analysis of Groundwater Samples from Monitoring and Recovery Wells
Texaco Exploration and Production Inc., Cooper-Jal Unit South Water Station
NW/4, SE/4, Section 24, Township 24 South, Range 36 East
Lea County, New Mexico

Well Number	Sample Date	pH s.u.	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Specific Conductance (umhos/cm)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness
	NMWQCC Standard						**250**	**1.60**	**10.00**	**600**					**1000**	
MW-5	02/26/98	7.2	--	--	180	--	6,600	--	--	910	1,400.0	470.0	31.00	2,400.0	12,000	5,430
	02/14/01	--	<1.0	166	166	21,000	7,700	1.80	4.10	910	--	--	--	--	18,000	--
	05/17/02	--	<1.0	156	156	--	4,040	1.53	4.56	586	757.0	319.0	60.90	1,260.0	8,340	--
	10/23/02	--	--	--	--	--	50	--	--	94.8	--	--	--	--	422	--
	05/22/03	--	<1.0	158	158	--	3,170	<4.00	6.52	550	644.0	215.0	49.90	1,240.0	7,860	--
	11/25/03	--	<1.0	168	168	--	5,120	<4.00	6.77	739	978.0	365.0	54.90	1,680.0	11,940	--
MW-5A	02/26/98	7.9	--	--	170	--	190	--	--	180	107.0	23.0	3.50	117.0	740	362
	02/15/01	--	<1.0	164	164	1,000	140	1.20	2.10	130	90.2	27.9	8.70	74.6	670	--
	05/15/02	--	<1.0	182	182	--	53.5	<1.00	2.23	84.4	63.2	16.1	4.69	43.6	475	--
	10/23/02	--	--	--	--	--	3,900	--	--	616	--	--	--	--	8,670	--
	05/22/03	--	<1.0	158	158	--	32.5	<1.00	2.10	69.9	55.5	13.8	3.41	41.5	416	--
	11/25/03	--	<1.0	332	332	--	34.1	1.05	2.20	75.5	60.9	14.6	4.08	45.0	422	--
MW-6	02/26/98	7.7	--	--	200	--	260	--	--	400	180.0	44.0	6.20	205.0	1,200	631
	02/14/01	--	<1.0	158	158	730	59	1.70	2.20	99	67.5	22.1	7.67	52.3	470	--
	05/17/02	--	<1.0	162	162	--	37.8	1.62	2.14	99.3	63.1	19.6	5.12	48.6	427	--
	10/23/02	--	--	--	--	--	46.1	--	--	109	--	--	--	--	331	--
	05/22/03	--	<1.0	162	162	--	40.3	1.24	2.13	94.4	61.7	17.4	4.23	51.9	464	--
	11/25/03	--	<1.0	154	154	--	53.6	1.40	2.18	98	53.6	18.7	4.97	51.7	482	--
MW-7	05/14/98	7.5	--	--	230	--	430	--	--	340	214.0	66.0	13.00	165.0	1,200	810
	02/14/01	--	<1.0	150	150	2,200	510	1.70	2.40	150	--	--	--	--	1,500	--
	05/16/02	--	<1.0	150	150	--	75.7	1.59	2.27	97.4	68.6	23.2	6.63	54.3	501	--
	10/22/02	--	--	--	--	--	88.6	--	--	109	--	--	--	--	490	--
	05/22/03	--	<1.0	140	140	--	173	1.17	2.14	88.9	85.5	28.2	6.18	64.6	631	--
	11/26/03	--	<1.0	136	136	--	189	1.29	2.23	93.5	95.7	31.0	7.91	63.6	704	--
MW-8	05/13/98	7.4	--	--	200	--	270	--	--	390	190.0	60.0	12.00	170.0	1,200	720
	02/14/01	--	<1.0	156	156	690	49	1.80	2.50	100	59.9	21.5	7.84	52.9	400	--
	05/16/02	--	<1.0	158	158	--	32.9	1.57	2.33	101	56.6	19.2	5.20	49.5	432	--
	10/22/02	--	--	--	--	--	40.8	--	--	104	--	--	--	--	392	--
	05/22/03	--	8	160	168	--	33.2	1.40	2.32	98.3	53.9	18.3	9.31	46.4	410	--
	11/26/03	--	<1.0	142	142	--	31.7	1.59	2.38	95.6	55.3	18.2	5.31	50.2	443	--
MW-9	05/14/98	7.6	--	--	190	--	350	--	--	470	207.0	61.0	12.00	200.0	1,300	770
	02/15/01	--	<1.0	156	156	660	35	2.60	2.40	110	60.4	19.8	7.47	47.0	430	--
	05/16/02	--	<1.0	160	160	--	31.7	2.22	2.28	99.4	60.8	17.6	5.32	50.1	440	--
	10/23/02	--	--	--	--	--	39	--	--	102	--	--	--	--	436	--
	05/22/03	--	<1.0	160	160	--	31	1.75	2.19	93.3	52.2	15.8	4.75	50.2	455	--
	11/26/03	--	<1.0	150	150	--	31.8	1.99	2.34	99.8	57.7	16.6	4.69	46.3	452	--
MW-9A	05/14/98	7.3	--	--	280	--	600	--	--	770	338.0	96.0	12.00	334.0	2,200	1,240
	02/15/01	--	<1.0	142	142	710	85	1.40	2.20	71	71.6	19.2	6.94	46.0	400	--
	05/15/02	--	<1.0	136	136	--	148	<1.00	2.18	65.3	62.9	16.1	4.62	46.8	445	--
	10/23/02	--	--	--	--	--	168	--	--	75.5	--	--	--	--	651	--
	05/22/03	--	<1.0	126	126	--	207	<1.00	2.09	62.1	102.0	25.2	4.80	55.7	672	--
	11/26/03	--	<1.0	118	118	--	216	1.14	2.26	62.7	107.0	25.1	5.31	53.2	648	--

Table 2: Summary of General Chemistry Analysis of Groundwater Samples from Monitoring and Recovery Wells
Texaco Exploration and Production Inc., Cooper-Jal Unit South Water Station
NW/4, SE/4, Section 24, Township 24 South, Range 36 East
Lea County, New Mexico

Well Number	Sample Date	pH s.u.	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Specific Conductance (umhos/cm)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness
	NMWQCC Standard						**250**	**1.60**	**10**	**600**					**1000**	
MW-10	05/14/98	7.3	--	--	240	--	360	--	--	450	211.0	62.0	11.00	190.0	1,400	780
	02/15/01	--	<1.0	140	140	1,100	190	2.00	2.30	97	108.0	32.3	8.20	61.0	660	--
	05/17/02	--	<1.0	152	152	--	204	1.93	2.19	99.1	109.0	31.7	7.60	62.4	713	--
	10/22/02	--	--	--	--	--	213	--	--	108	--	--	--	--	758	--
	05/22/03	--	<1.0	152	152	--	213	1.45	2.17	96.6	109.0	29.9	8.65	74.2	764	--
	11/26/03	--	<1.0	152	152	--	220	1.54	2.26	103	120.0	35.7	6.96	64.0	752	--
MW-11	01/22/99	10.6	30	<1.0	30	--	46	2.30	4.20	94	33.0	7.0	9.10	58.0	370	110
	02/15/01	--	<1.0	156	156	670	37	2.40	2.40	120	64.0	19.1	7.83	50.1	360	--
	05/16/02	--	<1.0	160	160	--	31.9	2.13	2.33	98.8	63.5	17.2	4.83	47.0	444	--
	10/23/02	--	--	--	--	--	37.2	--	--	102	--	--	--	--	447	--
	05/22/03	--	12	154	166	--	32.3	1.74	2.28	96.7	62.3	16.4	4.63	47.6	437	--
	11/26/03	--	<1.0	160	160	--	32.4	1.83	2.23	96.4	59.2	16.6	4.67	48.6	448	--
MW-12	05/15/02	--	<1.0	160	160	--	58.3	1.09	2.44	91.3	53.5	15.9	5.52	50.3	462	--
	10/23/02	--	--	--	--	--	65	--	--	102	--	--	--	--	477	--
	05/22/03	--	<1.0	148	148	--	91.1	1.04	2.30	87.7	74.2	21.0	4.89	57.6	516	--
	11/25/03	--	<1.0	142	142	--	93.1	1.18	2.36	90.9	74.7	20.9	5.41	52.5	548	--
MW-13	05/13/02	--	<1.0	100	100	--	517	<1.00	1.61	437	116.0	76.0	19.40	269.0	1,596	--
	10/23/02	--	--	--	--	--	549	--	--	370	--	--	--	--	1,740	--
	05/22/03	--	<1.0	186	186	--	944	<2.00	2.33	361	289.0	101.0	15.30	458.0	3,060	--
	11/25/03	--	<1.0	226	226	--	1,460	<2.00	2.22	372	369.0	117.0	20.00	478.0	3,445	--
RW-1	05/27/99	6.9	0	224	224	--	8,700	2.70	7.00	840	679.0	521.0	34.00	3290	14,000	2,145
	05/22/03	--	<1.0	190	190	--	2,410	2.46	4.23	345	162.0	145.0	25.40	1,180.0	5,260	--
	11/26/03	--	<1.0	184	184	--	1,990	<4.00	20.00	324	199.0	147.0	38.60	1,080.0	5,050	--
RW-2	05/22/03	--	324	<4.00	780	--	1,580	<2.00	2.43	23.9	1,060.0	<0.500	20.20	258.0	4,310	--
	11/26/03	--	64	<4.00	704	--	1,480	<5.00	5.81	38.3	988.0	<0.500	23.80	240.0	3,535	--
Duplicate	02/14/01	--	<1.0	160	160	640	33	1.50	2.50	100	55.9	19.0	7.74	49.2	490	--
(MW-3)			--	--	--	--	--	--	--	--	--	--	--	--	--	--
Duplicate	02/15/01	--	<1.0	150	150	680	37	2.40	2.40	120	64.1	19.3	7.75	49.1	460	--
(MW-11)																
Duplicate	10/22/02	--	--	--	--	--	222	--	--	107	--	--	--	--	802	--
(MW-10)																
Duplicate	10/23/02	--	--	--	--	--	62	--	--	99.2	--	--	--	--	439	--
(MW-12)																
Duplicate	05/22/03	--	<1.0	166	166	--	214	1.46	2.17	98.1	104.0	28.8	8.51	71.6	739	--
(MW-10)																
Duplicate	11/25/03	--	<1.0	150	150	--	32.8	1.04	2.21	74.3	57.3	14.2	3.93	42.9	430	--
(MW-5A)																
Duplicate	11/26/03	--	<1.0	126	126	--	237	1.42	2.36	93.2	105.0	35.4	7.57	64.7	708	--
(MW-7)																

Notes:

1. s.u.: Standard Units
2. mg/L: milligrams per liter
3. umhos/cm: millimhos per centimeter
4. New Mexico Water Quality Control Standards

Table 3: Summary of BTEX Analysis of Groundwater Samples from Monitoring and Recovery Wells
Texaco Exploration and Production, Inc., Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well Number	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene mg/L	Total BTEX mg/L
MW-1	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-2	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-2A	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-3	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-4	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-4A	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-5	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-5A	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-6	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-7	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-8	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-9	11/26/03	<0.001	<0.001	<0.001	0.0012	0.0012
MW-9A	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-10	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-11	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-12	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
MW-13	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
RW-1	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
RW-2	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004
Duplicate	11/25/03	<0.001	<0.001	<0.001	<0.001	<0.004
Duplicate	11/26/03	<0.001	<0.001	<0.001	<0.001	<0.004

Notes: Analysis performed by Trace Analysis, Inc., Lubbock, Texas

1. *mg/L:* *Milligrams per liter*
2. <: Denotes analyte concentration below test method detection limit
3. --: No data available
4. Duplicate 11/25/03 (MW-5A)
5. Duplicate 11/26/03 (MW-7)

FIGURES

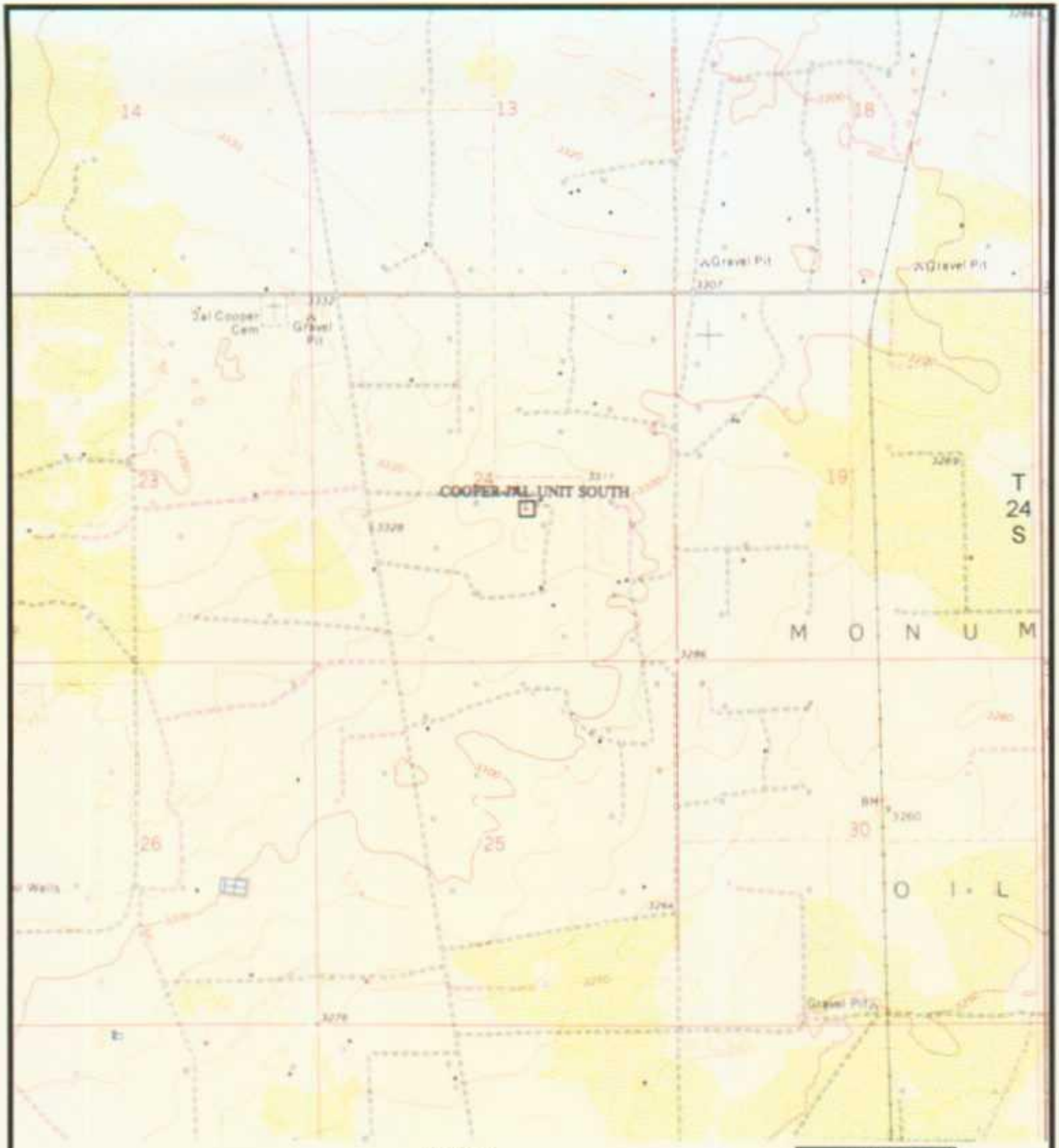


FIGURE #1

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

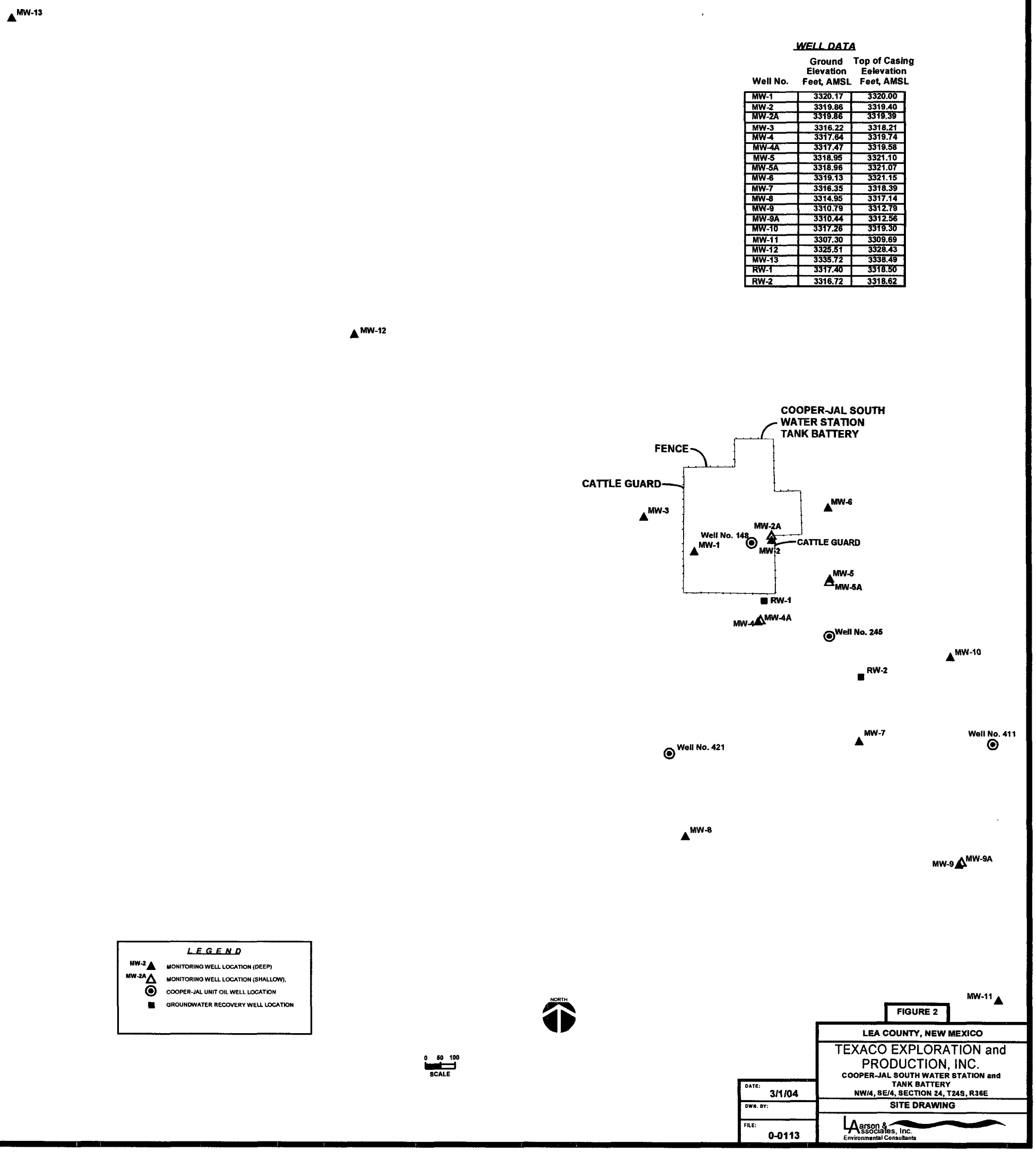
TOPOGRAPHIC MAP

DATE: 4/07/04

NAME:

FILE: 0-0113

LA Larson & Associates, Inc.
Environmental Consultants



WELL DATA

Well No.	Ground Elevation Feet, AMSL	Top of Casing Eelevation Feet, AMSL
MW-1	3320.17	3320.00
MW-2	3319.86	3319.40
MW-2A	3319.86	3319.39
MW-3	3316.22	3318.21
MW-4	3317.64	3319.74
MW-4A	3317.47	3319.58
MW-5	3318.95	3321.10
MW-5A	3318.96	3321.07
MW-6	3319.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.26	3319.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62

FIGURE 2

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

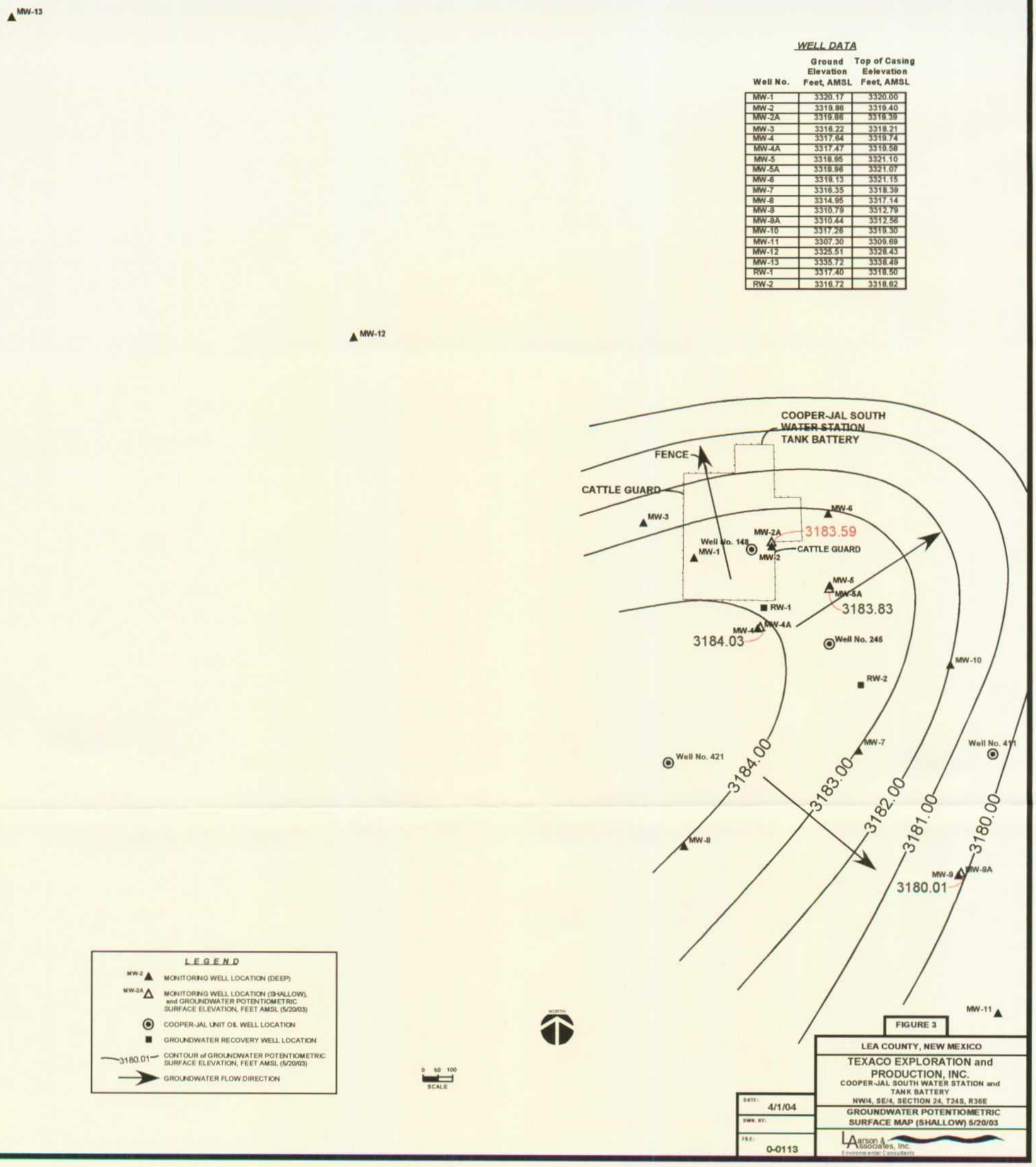
SITE DRAWING

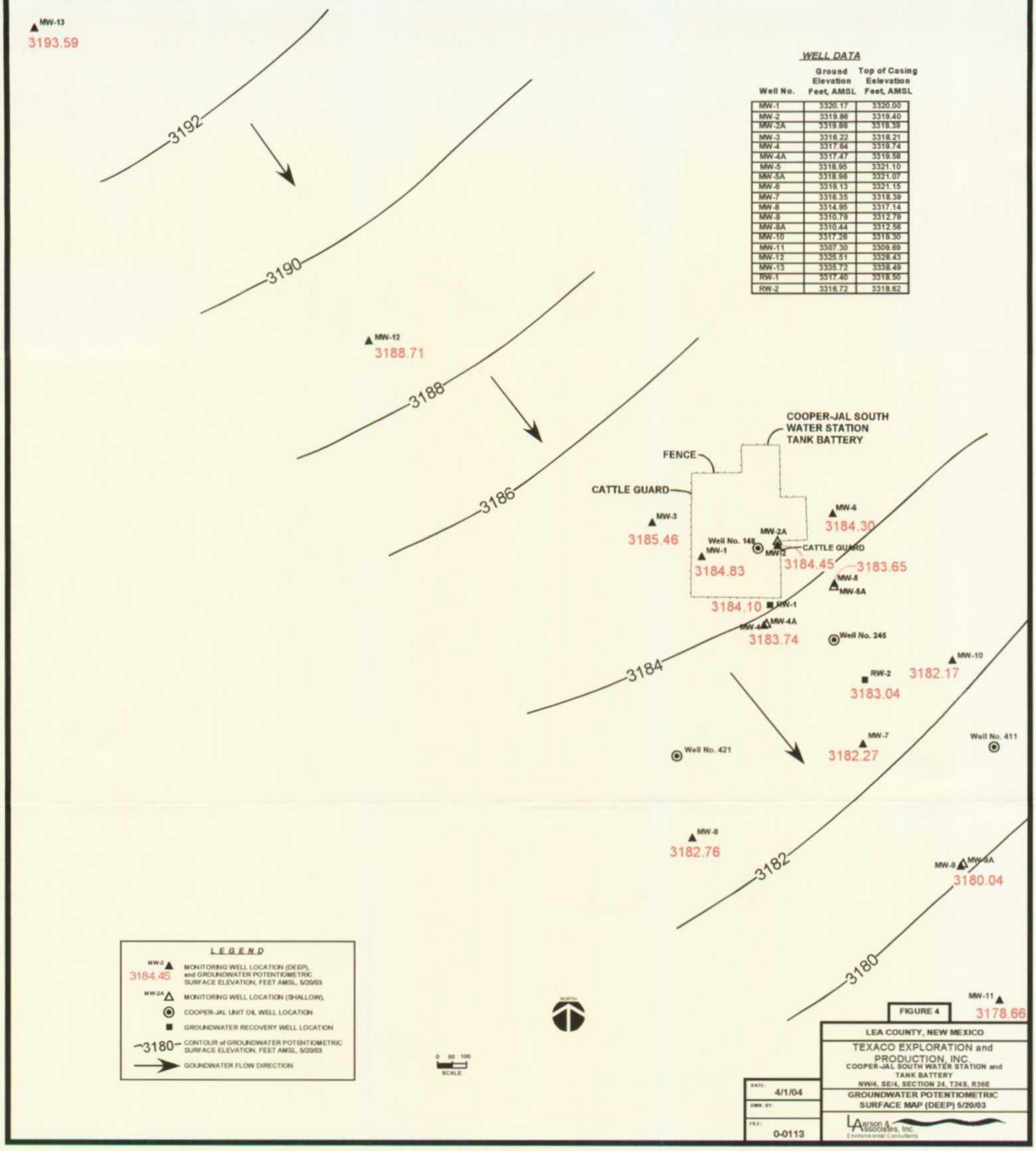
DATE: 3/1/04

DWN. BY:

FILE: 0-0113

Larson & Associates, Inc.
Environmental Consultants


MW-13
MW-12
WELL DATA
Well No. | Ground Elevation Feet, AMSL | Top of Casing Eelevation Feet, AMSL
MW-1 | 3320.17 | 3320.00
MW-2 | 3319.86 | 3319.40
MW-2A | 3319.86 | 3319.39
MW-3 | 3316.22 | 3318.21
MW-4 | 3317.64 | 3319.74
MW-4A | 3317.47 | 3319.58
MW-5 | 3318.95 | 3321.10
MW-5A | 3318.98 | 3321.07
MW-6 | 3319.13 | 3321.15
MW-7 | 3316.35 | 3318.39
MW-8 | 3314.95 | 3317.14
MW-9 | 3310.79 | 3312.79
MW-9A | 3310.44 | 3312.58
MW-10 | 3317.26 | 3319.30
MW-11 | 3307.30 | 3309.69
MW-12 | 3325.51 | 3328.43
MW-13 | 3335.72 | 3338.49
RW-1 | 3317.40 | 3318.50
RW-2 | 3316.72 | 3318.62
COOPER-JAL SOUTH WATER STATION TANK BATTERY
FENCE
CATTLE GUARD
MW-3
MW-6
MW-2A
3183.59
Well No. 148
MW-1
MW-2
CATTLE GUARD
MW-5
MW-5A
3183.83
RW-1
MW-4A
MW-4
3184.03
Well No. 245
MW-10
RW-2
MW-7
Well No. 421
Well No. 411
3184.00
3183.00
3182.00
3181.00
3180.00
MW-8
MW-9
MW-9A
3180.01
MW-11
LEGEND
MW-2 MONITORING WELL LOCATION (DEEP)
MW-2A MONITORING WELL LOCATION (SHALLOW), and GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL (5/20/03)
COOPER-JAL UNIT OIL WELL LOCATION
GROUNDWATER RECOVERY WELL LOCATION
3180.01 CONTOUR of GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL (5/20/03)
GROUNDWATER FLOW DIRECTION
NORTH
0 50 100
SCALE
FIGURE 3
LEA COUNTY, NEW MEXICO
TEXACO EXPLORATION and PRODUCTION, INC.
COOPER-JAL SOUTH WATER STATION and TANK BATTERY
NW/4, SE/4, SECTION 24, T24S, R36E
GROUNDWATER POTENTIOMETRIC SURFACE MAP (SHALLOW) 5/20/03
DATE: 4/1/04
DWN. BY:
F.S.I.: 0-0113
Larson & Associates, Inc.
Environmental Consultants



WELL DATA

Well No.	Ground Elevation Feet, AMSL	Top of Casing Eelevation Feet, AMSL
MW-1	3320.17	3320.00
MW-2	3319.86	3319.40
MW-2A	3319.86	3319.39
MW-3	3316.22	3318.21
MW-4	3317.64	3319.74
MW-4A	3317.47	3319.58
MW-5	3318.95	3321.10
MW-5A	3318.96	3321.07
MW-6	3318.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.28	3318.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62

FIGURE 4

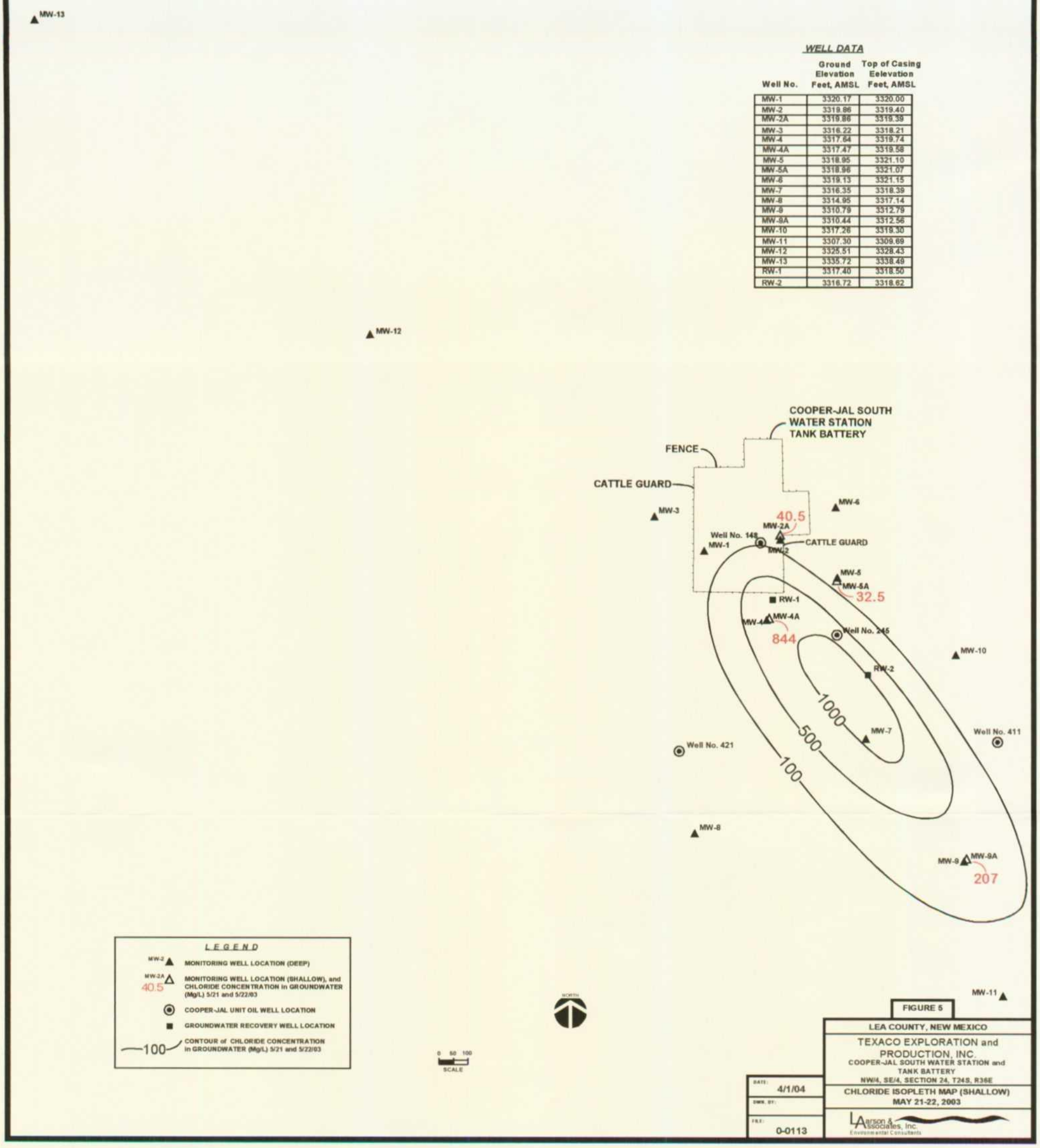
LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.
COOPER-JAL SOUTH WATER STATION and TANK BATTERY
NW/4, SE/4, SECTION 24, T24S, R36E

GROUNDWATER POTENTIOMETRIC SURFACE MAP (DEEP) 5/20/03

DATE: 4/1/04
DWN. BY:
FILE: 0-0113

Larson & Associates, Inc.
Environmental Consultants



WELL DATA

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MW-5A	3318.96	3321.07
MW-6	3319.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.26	3319.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62

FIGURE 5

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

CHLORIDE ISOPLETH MAP (SHALLOW)

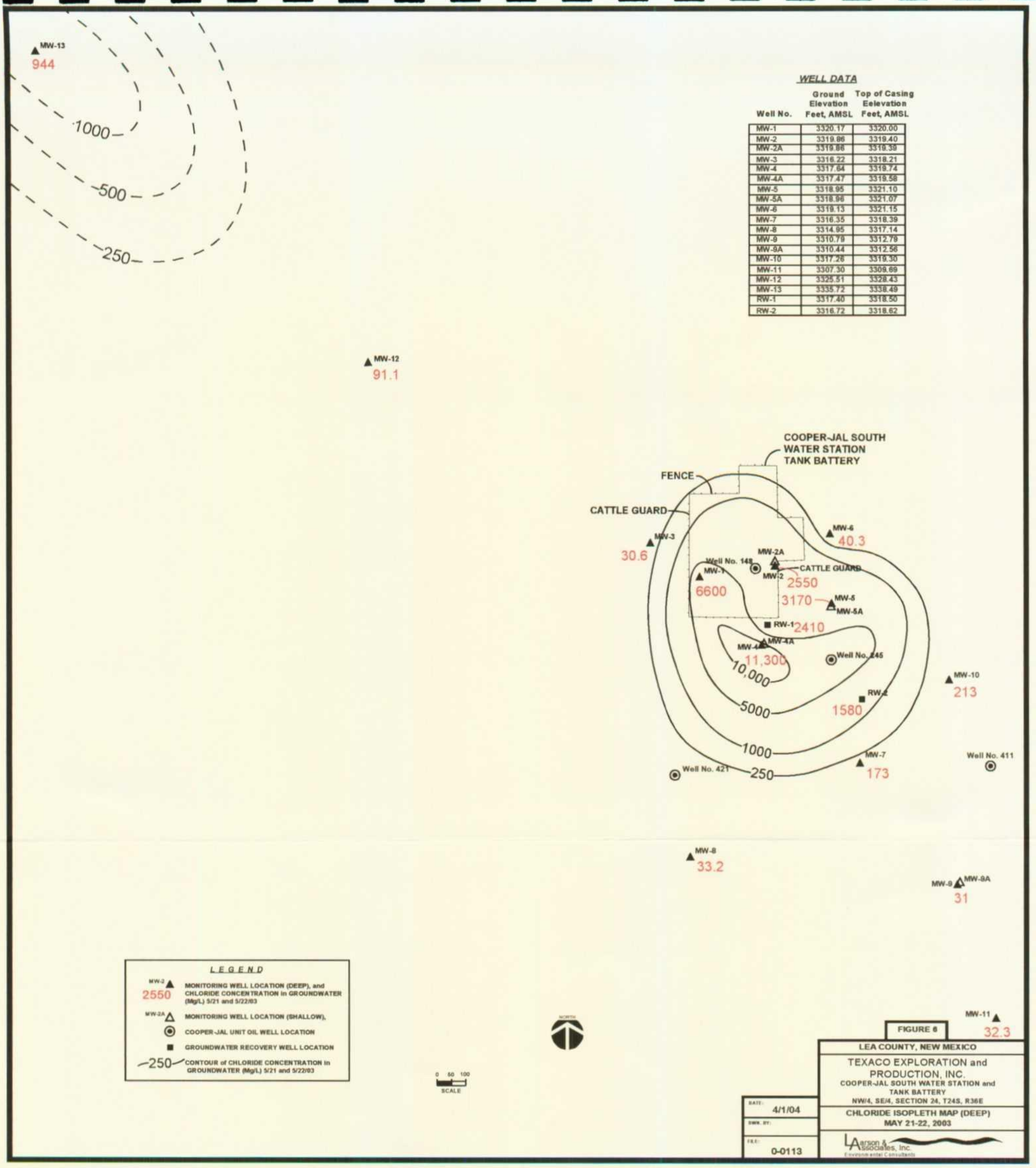
MAY 21-22, 2003

DATE: 4/1/04

DWN. BY:

FILE: 0-0113

Larson & Associates, Inc. Environmental Consultants



WELL DATA

Well No.	Ground Elevation Feet, AMSL	Top of Casing Eelevation Feet, AMSL
MW-1	3320.17	3320.00
MW-2	3319.86	3319.40
MW-2A	3319.88	3319.39
MW-3	3316.22	3318.21
MW-4	3317.64	3319.74
MW-4A	3317.47	3319.58
MW-5	3318.95	3321.10
MW-5A	3318.96	3321.07
MW-6	3319.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.26	3319.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62

FIGURE 6

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

CHLORIDE ISOPLETH MAP (DEEP)

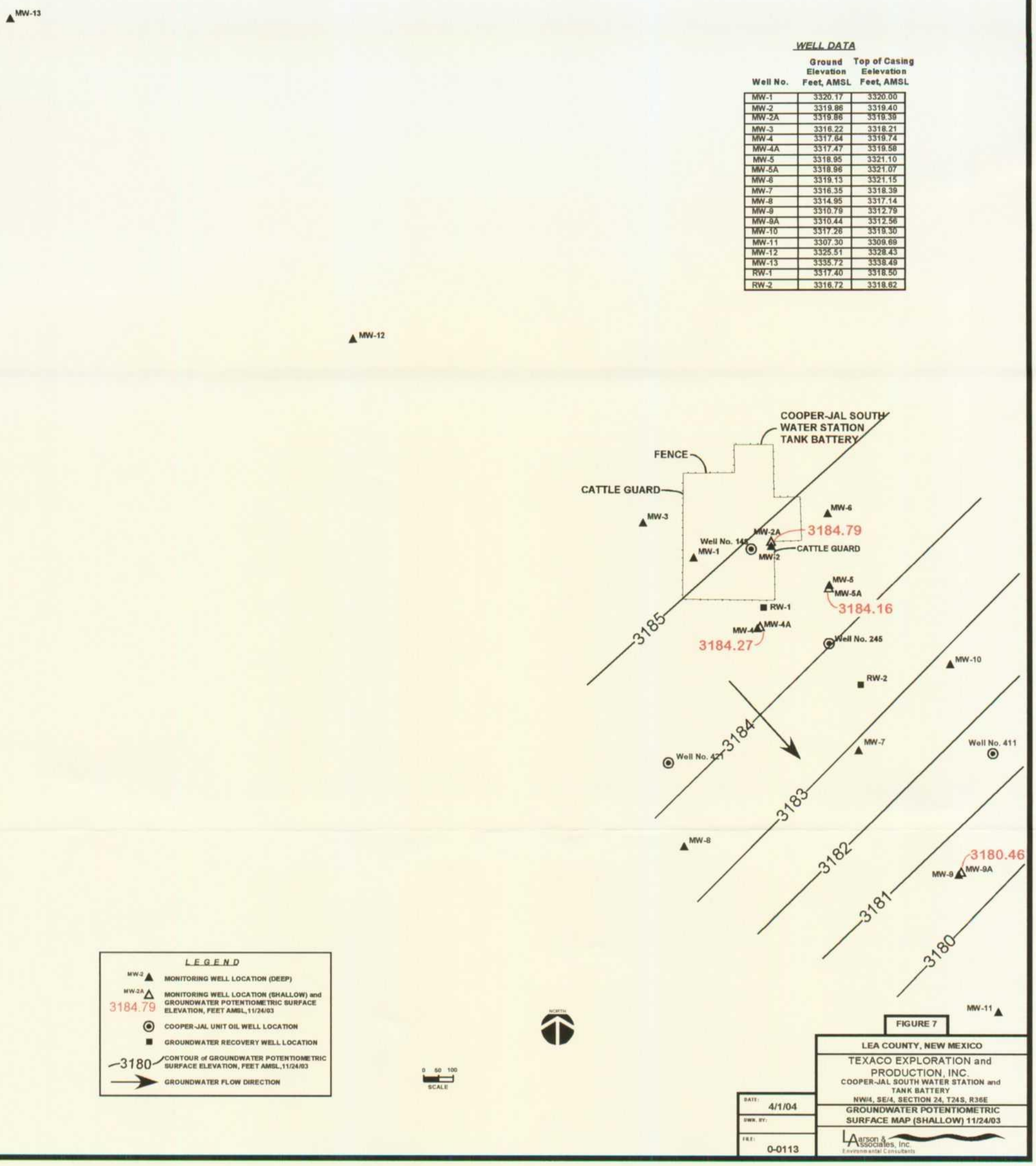
MAY 21-22, 2003

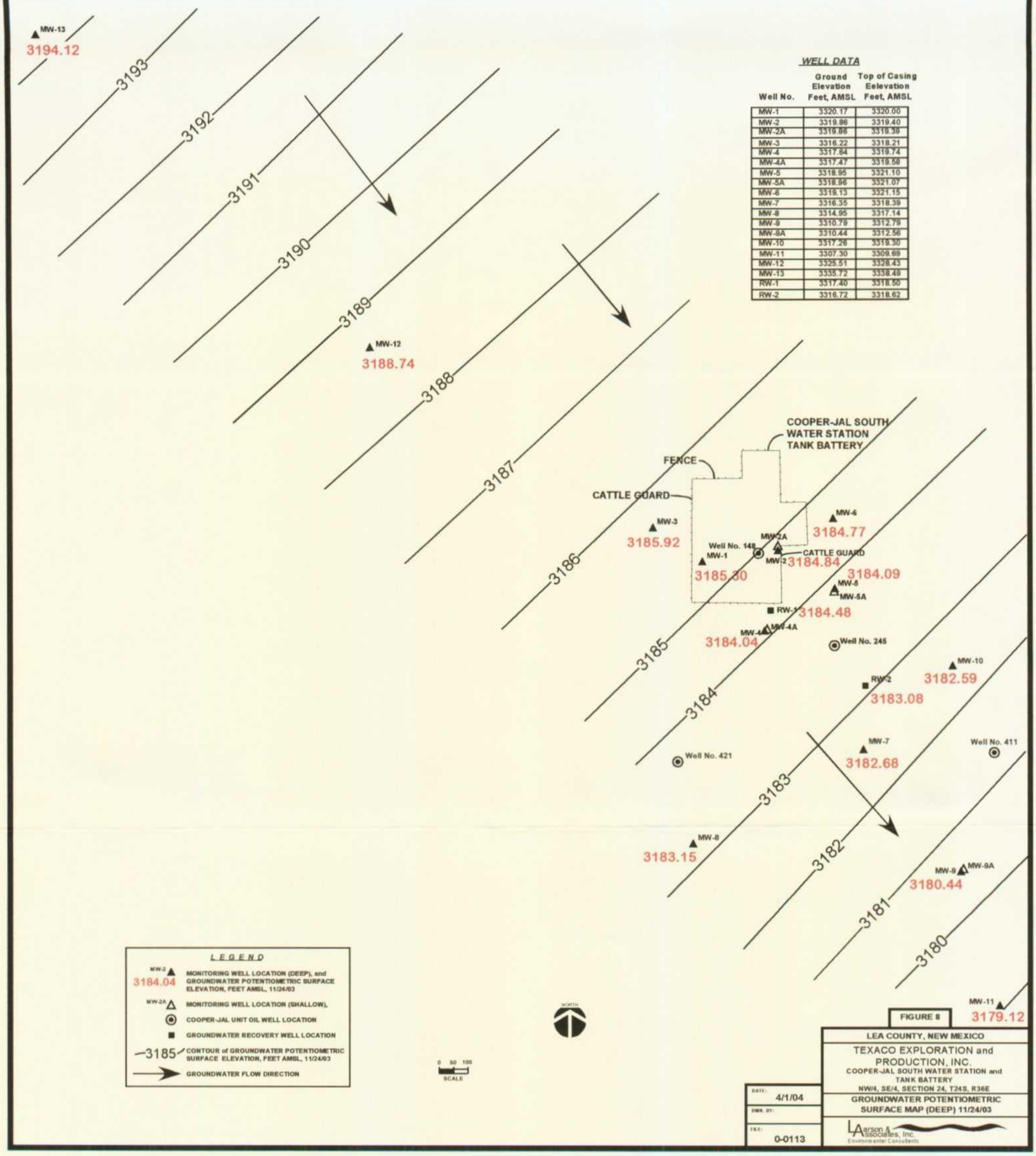
DATE: 4/1/04

DWN. BY:

FILE: 0-0113

Larson & Associates, Inc.
Environmental Consultants


MW-13
MW-12
WELL DATA
Well No. | Ground Elevation Feet, AMSL | Top of Casing Eelevation Feet, AMSL
MW-1 | 3320.17 | 3320.00
MW-2 | 3319.86 | 3319.40
MW-2A | 3319.86 | 3319.39
MW-3 | 3316.22 | 3318.21
MW-4 | 3317.64 | 3319.74
MW-4A | 3317.47 | 3319.58
MW-5 | 3318.95 | 3321.10
MW-5A | 3318.96 | 3321.07
MW-6 | 3319.13 | 3321.15
MW-7 | 3316.35 | 3318.39
MW-8 | 3314.95 | 3317.14
MW-9 | 3310.79 | 3312.79
MW-9A | 3310.44 | 3312.56
MW-10 | 3317.28 | 3319.30
MW-11 | 3307.30 | 3309.69
MW-12 | 3325.51 | 3328.43
MW-13 | 3335.72 | 3338.49
RW-1 | 3317.40 | 3318.50
RW-2 | 3316.72 | 3318.62
COOPER-JAL SOUTH WATER STATION TANK BATTERY
FENCE
CATTLE GUARD
CATTLE GUARD
Well No. 145
Well No. 245
Well No. 427
Well No. 411
RW-1
RW-2
3184.79
3184.16
3184.27
3180.46
3185
3184
3183
3182
3181
3180
LEGEND
MONITORING WELL LOCATION (DEEP)
MONITORING WELL LOCATION (SHALLOW) and GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, 11/24/03
COOPER-JAL UNIT OIL WELL LOCATION
GROUNDWATER RECOVERY WELL LOCATION
CONTOUR of GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, 11/24/03
GROUNDWATER FLOW DIRECTION
NORTH
0 50 100
SCALE
FIGURE 7
LEA COUNTY, NEW MEXICO
TEXACO EXPLORATION and PRODUCTION, INC.
COOPER-JAL SOUTH WATER STATION and TANK BATTERY
NW/4, SE/4, SECTION 24, T24S, R36E
GROUNDWATER POTENTIOMETRIC SURFACE MAP (SHALLOW) 11/24/03
DATE: 4/1/04
DWN. BY:
FILE: 0-0113
Larson & Associates, Inc.
Environmental Consultants



WELL DATA

Well No.	Ground Elevation Feet, AMSL	Top of Casing Eelevation Feet, AMSL
MW-1	3320.17	3320.00
MW-2	3319.86	3319.40
MW-2A	3319.86	3319.39
MW-3	3316.22	3318.21
MW-4	3317.64	3319.74
MW-4A	3317.47	3319.58
MW-5	3318.95	3321.10
MW-5A	3318.96	3321.07
MW-6	3319.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.28	3319.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62

LEGEND

- MW-2 3184.04 — MONITORING WELL LOCATION (DEEP), and GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, 11/24/03
- MW-2A — MONITORING WELL LOCATION (SHALLOW),
- COOPER-JAL UNIT OIL WELL LOCATION
- GROUNDWATER RECOVERY WELL LOCATION
- 3185 — CONTOUR of GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, 11/24/03
- GROUNDWATER FLOW DIRECTION

FIGURE 8

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

GROUNDWATER POTENTIOMETRIC SURFACE MAP (DEEP) 11/24/03

DATE: 4/1/04

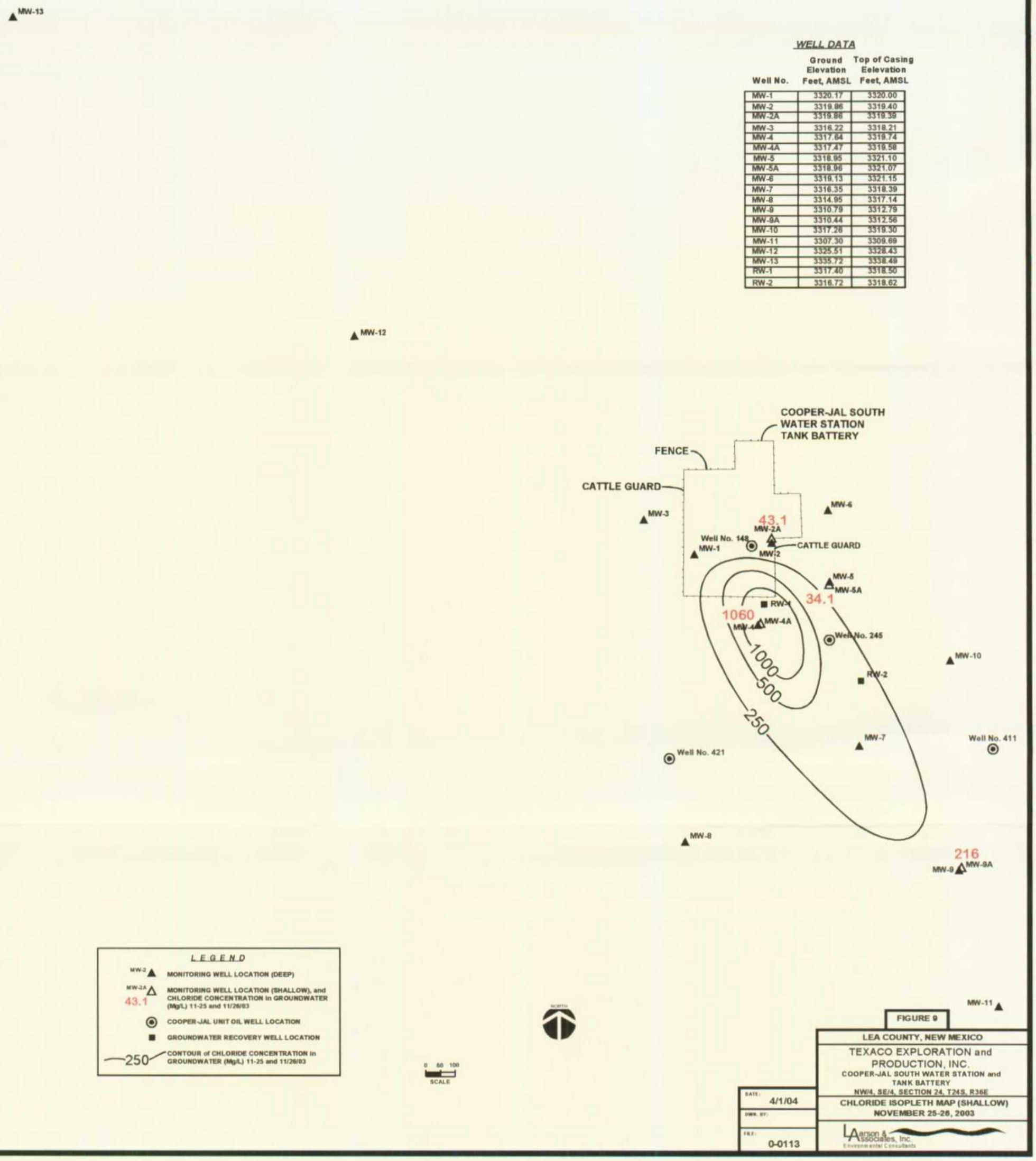
DWR. BY:

FILE: 0-0113

Larson & Associates, Inc. Environmental Consultants

WELL DATA

Well No.	Ground Elevation Feet, AMSL	Top of Casing Eelevation Feet, AMSL
MW-1	3320.17	3320.00
MW-2	3319.86	3319.40
MW-2A	3319.86	3319.39
MW-3	3316.22	3318.21
MW-4	3317.64	3319.74
MW-4A	3317.47	3319.58
MW-5	3318.95	3321.10
MW-5A	3318.96	3321.07
MW-6	3319.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.28	3319.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62



LEGEND

- MW-2 ▲ MONITORING WELL LOCATION (DEEP)
- MW-2A △ 43.1 MONITORING WELL LOCATION (SHALLOW), and CHLORIDE CONCENTRATION in GROUNDWATER (Mg/L) 11-25 and 11/26/03
- ◉ COOPER-JAL UNIT OIL WELL LOCATION
- ■ GROUNDWATER RECOVERY WELL LOCATION
- 250 CONTOUR of CHLORIDE CONCENTRATION in GROUNDWATER (Mg/L) 11-25 and 11/26/03

NORTH

0 50 100
SCALE

FIGURE 9

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

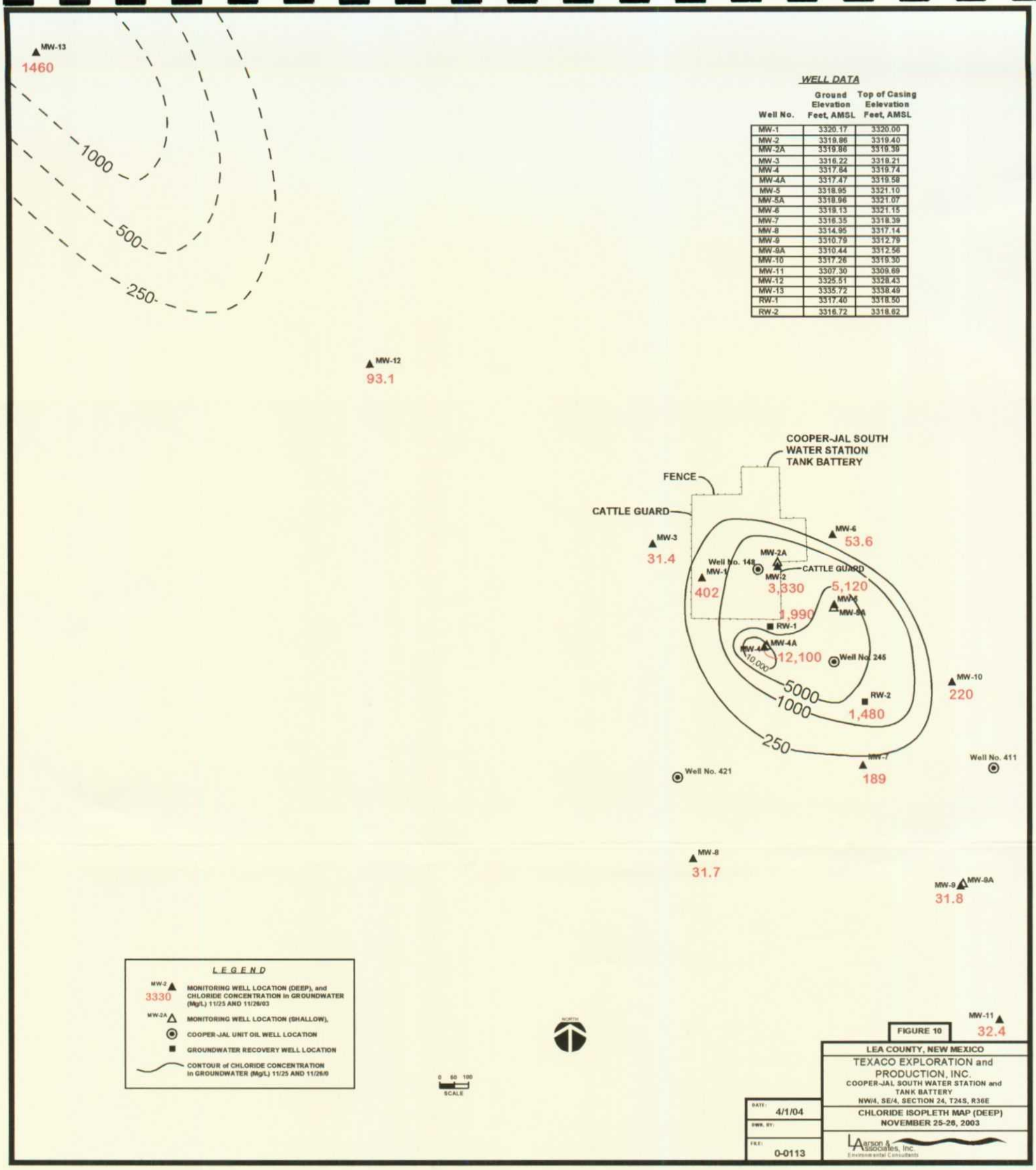
COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

CHLORIDE ISOPLETH MAP (SHALLOW)
NOVEMBER 25-26, 2003

DATE: 4/1/04
DWN. BY:
FILE: 0-0113

Larson & Associates, Inc.
Environmental Consultants



WELL DATA

Well No.	Ground Elevation Feet, AMSL	Top of Casing Eelevation Feet, AMSL
MW-1	3320.17	3320.00
MW-2	3319.86	3319.40
MW-2A	3319.88	3319.39
MW-3	3316.22	3318.21
MW-4	3317.64	3319.74
MW-4A	3317.47	3319.58
MW-5	3318.95	3321.10
MW-5A	3318.96	3321.07
MW-6	3319.13	3321.15
MW-7	3316.35	3318.39
MW-8	3314.95	3317.14
MW-9	3310.79	3312.79
MW-9A	3310.44	3312.56
MW-10	3317.26	3319.30
MW-11	3307.30	3309.69
MW-12	3325.51	3328.43
MW-13	3335.72	3338.49
RW-1	3317.40	3318.50
RW-2	3316.72	3318.62

FIGURE 10

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and PRODUCTION, INC.

COOPER-JAL SOUTH WATER STATION and TANK BATTERY

NW/4, SE/4, SECTION 24, T24S, R36E

CHLORIDE ISOPLETH MAP (DEEP)

NOVEMBER 25-26, 2003

DATE: 4/1/04

DWR. BY:

FILE: 0-0113

Larson & Associates, Inc. Environmental Consultants

APPENDIX A

Laboratory Analyses and Chain of Custody Documentation

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson and Associates, Inc.
P. O. Box 50685
Midland, Tx 79710

Report Date: June 16, 2003

Work Order: 3052711

Project Location:
Project Name: Cooper
Project Number: 0-0113

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
8337	MW-1	water	2003-05-21	14:05	2003-05-24
8338	MW-13	water	2003-05-22	08:30	2003-05-24
8339	MW-12	water	2003-05-22	08:45	2003-05-24
8340	MW-3	water	2003-05-22	09:30	2003-05-24
8341	MW-2A	water	2003-05-22	09:55	2003-05-24
8342	MW-2	water	2003-05-22	10:00	2003-05-24
8343	MW-6	water	2003-05-22	10:20	2003-05-24
8344	MW-5	water	2003-05-22	10:50	2003-05-24
8345	MW-5A	water	2003-05-22	11:05	2003-05-24
8346	MW-4A	water	2003-05-22	12:55	2003-05-24
8347	MW-4	water	2003-05-22	13:10	2003-05-24
8348	RW-1	water	2003-05-22	13:32	2003-05-24
8349	RW-2	water	2003-05-22	13:50	2003-05-24
8350	MW-10	water	2003-05-22	14:15	2003-05-24
8351	Dup	water	2003-05-22	00:00	2003-05-24
8352	MW-7	water	2003-05-22	14:40	2003-05-24
8353	MW-9A	water	2003-05-22	15:00	2003-05-24
8354	MW-9	water	2003-05-22	15:10	2003-05-24
8355	MW-11	water	2003-05-22	15:35	2003-05-24
8356	MW-8	water	2003-05-22	16:00	2003-05-24

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Blair Leftwich

Blair Leftwich, Director

Analytical Report

Sample: 8337 - MW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1927	Date Analyzed:	2003-05-28	Analyzed By:	RS
Prep Batch:	1744	Date Prepared:	2003-05-28	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		290	mg/L as CaCo3	1	4.00
Total Alkalinity		290	mg/L as CaCo3	1	4.00

Sample: 8337 - MW-1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		238	mg/L	1	0.500
Dissolved Potassium		96.5	mg/L	1	0.500
Dissolved Magnesium		475	mg/L	1	0.500
Dissolved Sodium		3410	mg/L	1	0.500

Sample: 8337 - MW-1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW
QC Batch:	1917	Date Analyzed:	2003-05-30	Analyzed By:	JSW
Prep Batch:	1736	Date Prepared:	2003-05-29	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6600	mg/L	500	0.500
Fluoride		<8.00	mg/L	40	0.200
Sulfate		875	mg/L	20	0.500

Sample: 8337 - MW-1

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1917	Date Analyzed:	2003-05-30	Analyzed By:	JSW
Prep Batch:	1736	Date Prepared:	2003-05-29	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		10.9	mg/L	40	0.200

Sample: 8337 - MW-1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1864	Date Analyzed:	2003-05-27	Analyzed By:	JSW
Prep Batch:	1683	Date Prepared:	2003-05-26	Prepared By:	RS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		13200	mg/L	10	10.00

Sample: 8338 - MW-13

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1927	Date Analyzed:	2003-05-28	Analyzed By:	RS
Prep Batch:	1744	Date Prepared:	2003-05-28	Prepared By:	RS

Parameter	Flag	Result	RL Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		186	mg/L as CaCo3	1	4.00
Total Alkalinity		186	mg/L as CaCo3	1	4.00

Sample: 8338 - MW-13

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Dissolved Calcium		289	mg/L	1	0.500
Dissolved Potassium		15.3	mg/L	1	0.500
Dissolved Magnesium		101	mg/L	1	0.500
Dissolved Sodium		458	mg/L	1	0.500

Sample: 8338 - MW-13

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		944	mg/L	100	0.500
Fluoride		<2.00	mg/L	10	0.200
Sulfate		361	mg/L	10	0.500

Sample: 8338 - MW-13

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW

Prep Batch: 1656 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.33	mg/L	10	0.200

Sample: 8338 - MW-13

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 1865 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1684 Date Prepared: 2003-05-27 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		3060	mg/L	10	10.00

Sample: 8339 - MW-12

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 1927 Date Analyzed: 2003-05-28 Analyzed By: RS
Prep Batch: 1744 Date Prepared: 2003-05-28 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		148	mg/L as CaCo3	1	4.00
Total Alkalinity		148	mg/L as CaCo3	1	4.00

Sample: 8339 - MW-12

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 2248 Date Analyzed: 2003-06-12 Analyzed By: BC
Prep Batch: 1688 Date Prepared: 2003-05-28 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		74.2	mg/L	1	0.500
Dissolved Potassium		4.89	mg/L	1	0.500
Dissolved Magnesium		21.0	mg/L	1	0.500
Dissolved Sodium		57.6	mg/L	1	0.500

Sample: 8339 - MW-12

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 1829 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1656 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		91.1	mg/L	5	0.500

continued ...

sample 8339 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Fluoride		1.04	mg/L	5	0.200
Sulfate		87.7	mg/L	5	0.500

Sample: 8339 - MW-12

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.30	mg/L	5	0.200

Sample: 8339 - MW-12

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1865	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1684	Date Prepared:	2003-05-27	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		516.0	mg/L	2	10.00

Sample: 8340 - MW-3

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1927	Date Analyzed:	2003-05-28	Analyzed By:	RS
Prep Batch:	1744	Date Prepared:	2003-05-28	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		156	mg/L as CaCo3	1	4.00
Total Alkalinity		156	mg/L as CaCo3	1	4.00

Sample: 8340 - MW-3

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		53.2	mg/L	1	0.500
Dissolved Potassium		5.39	mg/L	1	0.500

continued ...

sample 8340 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Magnesium		17.8	mg/L	1	0.500
Dissolved Sodium		54.6	mg/L	1	0.500

Sample: 8340 - MW-3

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		30.6	mg/L	5	0.500
Fluoride		1.17	mg/L	5	0.200
Sulfate		96.3	mg/L	5	0.500

Sample: 8340 - MW-3

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.25	mg/L	5	0.200

Sample: 8340 - MW-3

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		435.0	mg/L	1	10.00

Sample: 8341 - MW-2A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1927	Date Analyzed:	2003-05-28	Analyzed By:	RS
Prep Batch:	1744	Date Prepared:	2003-05-28	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		168	mg/L as CaCo3	1	4.00

continued ...

sample 8341 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Total Alkalinity		168	mg/L as CaCo3	1	4.00

Sample: 8341 - MW-2A

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		67.2	mg/L	1	0.500
Dissolved Potassium		3.76	mg/L	1	0.500
Dissolved Magnesium		14.3	mg/L	1	0.500
Dissolved Sodium		47.9	mg/L	1	0.500

Sample: 8341 - MW-2A

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		40.5	mg/L	5	0.500
Fluoride		<1.00	mg/L	5	0.200
Sulfate		75.5	mg/L	5	0.500

Sample: 8341 - MW-2A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1829	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1656	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.18	mg/L	5	0.200

Sample: 8341 - MW-2A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1864	Date Analyzed:	2003-05-27	Analyzed By:	JSW
Prep Batch:	1683	Date Prepared:	2003-05-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		418.0	mg/L	1	10.00

Sample: 8342 - MW-2

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		158		mg/L as CaCo3	1	4.00
Total Alkalinity		158		mg/L as CaCo3	1	4.00

Sample: 8342 - MW-2

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		448		mg/L	1	0.500
Dissolved Potassium		20.0		mg/L	1	0.500
Dissolved Magnesium		176		mg/L	1	0.500
Dissolved Sodium		1020		mg/L	1	0.500

Sample: 8342 - MW-2

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		2550		mg/L	100	0.500
Fluoride		2.04		mg/L	10	0.200
Sulfate		386		mg/L	10	0.500

Sample: 8342 - MW-2

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		3.87		mg/L	10	0.200

Sample: 8342 - MW-2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW

Prep Batch: 1685 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		5880	mg/L	5	10.00

Sample: 8343 - MW-6

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 1969 Date Analyzed: 2003-06-03 Analyzed By: RS
Prep Batch: 1781 Date Prepared: 2003-06-03 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		162	mg/L as CaCo3	1	4.00
Total Alkalinity		162	mg/L as CaCo3	1	4.00

Sample: 8343 - MW-6

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 2248 Date Analyzed: 2003-06-12 Analyzed By: BC
Prep Batch: 1688 Date Prepared: 2003-05-28 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		61.7	mg/L	1	0.500
Dissolved Potassium		4.23	mg/L	1	0.500
Dissolved Magnesium		17.4	mg/L	1	0.500
Dissolved Sodium		51.9	mg/L	1	0.500

Sample: 8343 - MW-6

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 1830 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1657 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		40.3	mg/L	5	0.500
Fluoride		1.24	mg/L	5	0.200
Sulfate		94.4	mg/L	5	0.500

Sample: 8343 - MW-6

Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 1830 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1657 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.13	mg/L	5	0.200

Sample: 8343 - MW-6

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		464.0	mg/L	2	10.00

Sample: 8344 - MW-5

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		158	mg/L as CaCo3	1	4.00
Total Alkalinity		158	mg/L as CaCo3	1	4.00

Sample: 8344 - MW-5

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		644	mg/L	1	0.500
Dissolved Potassium		49.9	mg/L	1	0.500
Dissolved Magnesium		215	mg/L	1	0.500
Dissolved Sodium		1240	mg/L	1	0.500

Sample: 8344 - MW-5

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3170	mg/L	500	0.500
Fluoride		<4.00	mg/L	20	0.200

continued ...

sample 8344 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		550	mg/L	20	0.500

Sample: 8344 - MW-5

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		6.52	mg/L	20	0.200

Sample: 8344 - MW-5

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1865	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1684	Date Prepared:	2003-05-27	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		7860	mg/L	5	10.00

Sample: 8345 - MW-5A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		158	mg/L as CaCo3	1	4.00
Total Alkalinity		158	mg/L as CaCo3	1	4.00

Sample: 8345 - MW-5A

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		55.5	mg/L	1	0.500
Dissolved Potassium		3.41	mg/L	1	0.500
Dissolved Magnesium		13.8	mg/L	1	0.500

continued ...

sample 8345 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Sodium		41.5	mg/L	1	0.500

Sample: 8345 - MW-5A

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		32.5	mg/L	5	0.500
Fluoride		<1.00	mg/L	5	0.200
Sulfate		69.9	mg/L	5	0.500

Sample: 8345 - MW-5A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.10	mg/L	5	0.200

Sample: 8345 - MW-5A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		416.0	mg/L	4	10.00

Sample: 8346 - MW-4A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		154	mg/L as CaCo3	1	4.00
Total Alkalinity		154	mg/L as CaCo3	1	4.00

Sample: 8346 - MW-4A

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		279		mg/L	1	0.500
Dissolved Potassium		10.1		mg/L	1	0.500
Dissolved Magnesium		58.9		mg/L	1	0.500
Dissolved Sodium		248		mg/L	1	0.500

Sample: 8346 - MW-4A

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		844		mg/L	50	0.500
Fluoride		<1.00		mg/L	5	0.200
Sulfate		160		mg/L	5	0.500

Sample: 8346 - MW-4A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		2.43		mg/L	5	0.200

Sample: 8346 - MW-4A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		2200		mg/L	5	10.00

Sample: 8347 - MW-4

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		220	mg/L as CaCo3	1	4.00
Total Alkalinity		220	mg/L as CaCo3	1	4.00

Sample: 8347 - MW-4

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		1450	mg/L	1	0.500
Dissolved Potassium		47.3	mg/L	1	0.500
Dissolved Magnesium		659	mg/L	1	0.500
Dissolved Sodium		4140	mg/L	1	0.500

Sample: 8347 - MW-4

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		11300	mg/L	1000	0.500
Fluoride		<10.0	mg/L	50	0.200
Sulfate		1370	mg/L	50	0.500

Sample: 8347 - MW-4

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1830	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1657	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		12.3	mg/L	50	0.200

Sample: 8347 - MW-4

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

continued ...

sample 8347 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		62500	mg/L	50	10.00

Sample: 8348 - RW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		190	mg/L as CaCo3	1	4.00
Total Alkalinity		190	mg/L as CaCo3	1	4.00

Sample: 8348 - RW-1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		162	mg/L	1	0.500
Dissolved Potassium		25.4	mg/L	1	0.500
Dissolved Magnesium		145	mg/L	1	0.500
Dissolved Sodium		1180	mg/L	1	0.500

Sample: 8348 - RW-1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2410	mg/L	100	0.500
Fluoride		2.46	mg/L	10	0.200
Sulfate		345	mg/L	10	0.500

Sample: 8348 - RW-1

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW

Prep Batch: 1658 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		4.23	mg/L	10	0.200

Sample: 8348 - RW-1

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 1865 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1684 Date Prepared: 2003-05-27 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		5260	mg/L	10	10.00

Sample: 8349 - RW-2

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 1969 Date Analyzed: 2003-06-03 Analyzed By: RS
Prep Batch: 1781 Date Prepared: 2003-06-03 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		456	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		324	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	1	4.00
Total Alkalinity		780	mg/L as CaCo3	1	4.00

Sample: 8349 - RW-2

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 2248 Date Analyzed: 2003-06-12 Analyzed By: BC
Prep Batch: 1688 Date Prepared: 2003-05-28 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		1060	mg/L	1	0.500
Dissolved Potassium		20.2	mg/L	1	0.500
Dissolved Magnesium		<0.500	mg/L	1	0.500
Dissolved Sodium		258	mg/L	1	0.500

Sample: 8349 - RW-2

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 1831 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1658 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1580	mg/L	100	0.500

continued ...

sample 8349 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Fluoride		<2.00	mg/L	10	0.200
Sulfate		23.9	mg/L	10	0.500

Sample: 8349 - RW-2

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.43	mg/L	10	0.200

Sample: 8349 - RW-2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		4310	mg/L	5	10.00

Sample: 8350 - MW-10

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		152	mg/L as CaCo3	1	4.00
Total Alkalinity		152	mg/L as CaCo3	1	4.00

Sample: 8350 - MW-10

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		109	mg/L	1	0.500
Dissolved Potassium		8.65	mg/L	1	0.500

continued ...

sample 8350 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Magnesium		29.9	mg/L	1	0.500
Dissolved Sodium		74.2	mg/L	1	0.500

Sample: 8350 - MW-10

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		213	mg/L	5	0.500
Fluoride		1.45	mg/L	5	0.200
Sulfate		96.6	mg/L	5	0.500

Sample: 8350 - MW-10

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.17	mg/L	5	0.200

Sample: 8350 - MW-10

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		764.0	mg/L	1	10.00

Sample: 8351 - Dup

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1969	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1781	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		166	mg/L as CaCo3	1	4.00

continued ...

sample 8351 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Total Alkalinity		166	mg/L as CaCo3	1	4.00

Sample: 8351 - Dup

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		104	mg/L	1	0.500
Dissolved Potassium		8.51	mg/L	1	0.500
Dissolved Magnesium		28.8	mg/L	1	0.500
Dissolved Sodium		71.6	mg/L	1	0.500

Sample: 8351 - Dup

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		214	mg/L	5	0.500
Fluoride		1.46	mg/L	5	0.200
Sulfate		98.1	mg/L	5	0.500

Sample: 8351 - Dup

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.17	mg/L	5	0.200

Sample: 8351 - Dup

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1685	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		739.0	mg/L	1	10.00

Sample: 8352 - MW-7

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1970	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1782	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		140	mg/L as CaCo3	1	4.00
Total Alkalinity		140	mg/L as CaCo3	1	4.00

Sample: 8352 - MW-7

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		85.5	mg/L	1	0.500
Dissolved Potassium		6.18	mg/L	1	0.500
Dissolved Magnesium		28.2	mg/L	1	0.500
Dissolved Sodium		64.6	mg/L	1	0.500

Sample: 8352 - MW-7

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		173	mg/L	5	0.500
Fluoride		1.17	mg/L	5	0.200
Sulfate		88.9	mg/L	5	0.500

Sample: 8352 - MW-7

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1831	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1658	Date Prepared:	2003-05-27	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.14	mg/L	5	0.200

Sample: 8352 - MW-7

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1866	Date Analyzed:	2003-05-28	Analyzed By:	JSW

Prep Batch: 1685 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		631.0	mg/L	1	10.00

Sample: 8353 - MW-9A

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 1970 Date Analyzed: 2003-06-03 Analyzed By: RS
Prep Batch: 1782 Date Prepared: 2003-06-03 Prepared By: RS

Parameter	Flag	Result	RL Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		126	mg/L as CaCo3	1	4.00
Total Alkalinity		126	mg/L as CaCo3	1	4.00

Sample: 8353 - MW-9A

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 2248 Date Analyzed: 2003-06-12 Analyzed By: BC
Prep Batch: 1688 Date Prepared: 2003-05-28 Prepared By: TP

Parameter	Flag	Result	RL Units	Dilution	RL
Dissolved Calcium		102	mg/L	1	0.500
Dissolved Potassium		4.80	mg/L	1	0.500
Dissolved Magnesium		25.2	mg/L	1	0.500
Dissolved Sodium		55.7	mg/L	1	0.500

Sample: 8353 - MW-9A

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 1831 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1658 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		207	mg/L	5	0.500
Fluoride		<1.00	mg/L	5	0.200
Sulfate		62.1	mg/L	5	0.500

Sample: 8353 - MW-9A

Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 1831 Date Analyzed: 2003-05-28 Analyzed By: JSW
Prep Batch: 1658 Date Prepared: 2003-05-27 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.09	mg/L	5	0.200

Sample: 8353 - MW-9A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1865	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1684	Date Prepared:	2003-05-27	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		672.0	mg/L	4	10.00

Sample: 8354 - MW-9

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1970	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1782	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		160	mg/L as CaCo3	1	4.00
Total Alkalinity		160	mg/L as CaCo3	1	4.00

Sample: 8354 - MW-9

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		52.2	mg/L	1	0.500
Dissolved Potassium		4.75	mg/L	1	0.500
Dissolved Magnesium		15.8	mg/L	1	0.500
Dissolved Sodium		50.2	mg/L	1	0.500

Sample: 8354 - MW-9

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1903	Date Analyzed:	2003-05-29	Analyzed By:	JSW
Prep Batch:	1725	Date Prepared:	2003-05-28	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		31.0	mg/L	5	0.500
Fluoride		1.75	mg/L	5	0.200

continued ...

sample 8354 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		93.3	mg/L	5	0.500

Sample: 8354 - MW-9

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1903	Date Analyzed:	2003-05-29	Analyzed By:	JSW
Prep Batch:	1725	Date Prepared:	2003-05-28	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.19	mg/L	5	0.200

Sample: 8354 - MW-9

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1865	Date Analyzed:	2003-05-28	Analyzed By:	JSW
Prep Batch:	1684	Date Prepared:	2003-05-27	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		455.0	mg/L	1	10.00

Sample: 8355 - MW-11

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1970	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1782	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		12.0	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		154	mg/L as CaCo3	1	4.00
Total Alkalinity		166	mg/L as CaCo3	1	4.00

Sample: 8355 - MW-11

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		62.3	mg/L	1	0.500
Dissolved Potassium		4.63	mg/L	1	0.500
Dissolved Magnesium		16.4	mg/L	1	0.500

continued ...

sample 8355 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Sodium		47.6	mg/L	1	0.500

Sample: 8355 - MW-11

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1903	Date Analyzed:	2003-05-29	Analyzed By:	JSW
Prep Batch:	1725	Date Prepared:	2003-05-28	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		32.3	mg/L	5	0.500
Fluoride		1.74	mg/L	5	0.200
Sulfate		96.7	mg/L	5	0.500

Sample: 8355 - MW-11

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1903	Date Analyzed:	2003-05-29	Analyzed By:	JSW
Prep Batch:	1725	Date Prepared:	2003-05-28	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.28	mg/L	5	0.200

Sample: 8355 - MW-11

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1864	Date Analyzed:	2003-05-27	Analyzed By:	JSW
Prep Batch:	1683	Date Prepared:	2003-05-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		437.0	mg/L	1	10.00

Sample: 8356 - MW-8

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	1970	Date Analyzed:	2003-06-03	Analyzed By:	RS
Prep Batch:	1782	Date Prepared:	2003-06-03	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		8.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		160	mg/L as CaCo3	1	4.00
Total Alkalinity		168	mg/L as CaCo3	1	4.00

Sample: 8356 - MW-8

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	2248	Date Analyzed:	2003-06-12	Analyzed By:	BC
Prep Batch:	1688	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		53.9		mg/L	1	0.500
Dissolved Potassium		9.31		mg/L	1	0.500
Dissolved Magnesium		18.3		mg/L	1	0.500
Dissolved Sodium		46.4		mg/L	1	0.500

Sample: 8356 - MW-8

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1903	Date Analyzed:	2003-05-29	Analyzed By:	JSW
Prep Batch:	1725	Date Prepared:	2003-05-28	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		33.2		mg/L	5	0.500
Fluoride		1.40		mg/L	5	0.200
Sulfate		98.3		mg/L	5	0.500

Sample: 8356 - MW-8

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	1903	Date Analyzed:	2003-05-29	Analyzed By:	JSW
Prep Batch:	1725	Date Prepared:	2003-05-28	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		2.32		mg/L	5	0.200

Sample: 8356 - MW-8

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	1864	Date Analyzed:	2003-05-27	Analyzed By:	JSW
Prep Batch:	1683	Date Prepared:	2003-05-26	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		410.0		mg/L	1	10.00

Method Blank (1) QC Batch: 1829

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 1829

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 1830

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 1830

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 1831

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 1831

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 1864

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 1865

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 1866

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 1903

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 1903

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 1917

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 1917

Parameter	Flag	Result	Units	RL
Fluoride		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 1927

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 1969

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 1970

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 2248

Parameter	Flag	Result	Units	RL
Dissolved Calcium		<0.500	mg/L	0.5
Dissolved Potassium		<0.500	mg/L	0.5
Dissolved Magnesium		<0.500	mg/L	0.5
Dissolved Sodium		<0.500	mg/L	0.5

Duplicate (1) QC Batch: 1864

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	3550	3475	mg/L	5	2	9.41

Duplicate (1) QC Batch: 1865

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1250	1230	mg/L	2	2	9.41

Duplicate (1) QC Batch: 1866

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	776.0	764.0	mg/L	1	2	9.41

Duplicate (1) QC Batch: 1927

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	5.81
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	5.81
Bicarbonate Alkalinity	108	104	mg/L as CaCo3	1	4	5.81
Total Alkalinity	108	104	mg/L as CaCo3	1	4	5.81

Duplicate (1) QC Batch: 1969

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	5.81
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	5.81
Bicarbonate Alkalinity	212	220	mg/L as CaCo3	1	4	5.81
Total Alkalinity	212	220	mg/L as CaCo3	1	4	5.81

Duplicate (1) QC Batch: 1970

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	5.81
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	5.81
Bicarbonate Alkalinity	122	126	mg/L as CaCo3	1	3	5.81
Total Alkalinity	122	126	mg/L as CaCo3	1	3	5.81

Laboratory Control Spike (LCS-1) QC Batch: 1829

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.30	2.30	mg/L	1	2.50	<0.630	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1829

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.9	11.9	mg/L	1	12.5	<1.49	95	0	90 - 110	20
Fluoride	2.31	2.33	mg/L	1	2.50	<0.0153	92	1	90 - 110	20
Sulfate	11.8	11.8	mg/L	1	12.5	<0.171	94	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1830

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.29	2.30	mg/L	1	2.50	<0.630	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1830

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.9	11.9	mg/L	1	12.5	<1.49	95	0	90 - 110	20
Fluoride	2.31	2.33	mg/L	1	2.50	<0.0153	92	1	90 - 110	20
Sulfate	11.6	11.7	mg/L	1	12.5	<0.171	93	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1831

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.29	2.29	mg/L	1	2.50	<0.630	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1831

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.9	11.8	mg/L	1	12.5	<1.49	95	1	90 - 110	20
Fluoride	2.29	2.30	mg/L	1	2.50	<0.0153	92	0	90 - 110	20
Sulfate	11.5	11.7	mg/L	1	12.5	<0.171	92	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1903

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.31	2.30	mg/L	1	2.50	<0.630	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1903

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.0	11.9	mg/L	1	12.5	<1.49	96	1	90 - 110	20
Fluoride	2.33	2.34	mg/L	1	2.50	<0.0153	93	0	90 - 110	20
Sulfate	12.0	11.9	mg/L	1	12.5	<0.171	96	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1917

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.31	2.30	mg/L	1	2.50	<0.630	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 1917

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Fluoride	2.33	2.34	mg/L	1	2.50	<0.0153	93	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 2248

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	98.7	92.0	mg/L	1	100	<0.183	99	7	85 - 115	20
Dissolved Potassium	101	96.9	mg/L	1	100	<0.135	101	4	85 - 115	20
Dissolved Magnesium	101	92.6	mg/L	1	100	<0.183	101	9	85 - 115	20
Dissolved Sodium	101	97.8	mg/L	1	100	<0.105	101	3	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1829

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	1200	1190	mg/L	500	2.50	<315	89	1	62.2 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1829

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12400	12400	mg/L	500	12.5	6600	93	0	32.7 - 136	20
Fluoride	1150	1150	mg/L	500	2.50	<7.67	92	0	30.1 - 187	20
Sulfate	6690	6820	mg/L	500	12.5	1070	90	2	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1830

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2380	2340	mg/L	1000	2.50	<630	95	2	62.2 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1830

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	22700	22700	mg/L	1000	12.5	11300	91	0	32.7 - 136	20
Fluoride	2270	2290	mg/L	1000	2.50	<15.3	91	1	30.1 - 187	20
Sulfate	12900	12800	mg/L	1000	12.5	1720	89	1	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1831

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	238	237	mg/L	100	2.50	<63.0	87	0	62.2 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1831

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	3510	3520	mg/L	100	12.5	2410	88	0	32.7 - 136	20
Fluoride	226	229	mg/L	100	2.50	9.89	86	1	30.1 - 187	20
Sulfate	1450	1440	mg/L	100	12.5	330	90	1	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1903

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	121	121	mg/L	50	2.50	<31.5	89	0	62.2 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1903

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	1340	1340	mg/L	50	12.5	759	93	0	32.7 - 136	20
Fluoride	119	120	mg/L	50	2.50	6.5	90	1	30.1 - 187	20
Sulfate	845	838	mg/L	50	12.5	266	93	1	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1917

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	121	121	mg/L	50	2.50	<31.5	97	0	62.2 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 1917

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Fluoride	[1,2]	92.6	93.5	mg/L	50	2.50	74.7	14	1	30.1 - 187	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 2248

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	148	147	mg/L	1	100	53.2	95	1	75 - 125	20
Dissolved Potassium	116	117	mg/L	1	100	5.39	111	1	75 - 125	20
Dissolved Magnesium	106	118	mg/L	1	100	17.8	88	11	75 - 125	20
Dissolved Sodium	158	155	mg/L	1	100	54.6	103	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 1829

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.30	92	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1829

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.6	93	90 - 110	2003-05-28
Fluoride		mg/L	2.50	2.31	92	90 - 110	2003-05-28
Sulfate		mg/L	12.5	11.5	92	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1829

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.29	92	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1829

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2003-05-28
Fluoride		mg/L	2.50	2.35	94	90 - 110	2003-05-28
Sulfate		mg/L	12.5	11.7	94	90 - 110	2003-05-28

[1]Poor spike recovery due to matrix difficulties. The LCS/LCSD show the analysis is in control.
[2]Poor spike recovery due to matrix difficulties. The LCS/LCSD show the analysis is in control.

Standard (ICV-1) QC Batch: 1830

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.29	92	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1830

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2003-05-28
Fluoride		mg/L	2.50	2.35	94	90 - 110	2003-05-28
Sulfate		mg/L	12.5	11.7	94	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1830

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.29	92	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1830

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2003-05-28
Fluoride		mg/L	2.50	2.33	93	90 - 110	2003-05-28
Sulfate		mg/L	12.5	11.8	94	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1831

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.29	92	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1831

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2003-05-28
Fluoride		mg/L	2.50	2.33	93	90 - 110	2003-05-28
Sulfate		mg/L	12.5	11.8	94	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1831

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.31	92	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1831

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2003-05-28
Fluoride		mg/L	2.50	2.36	94	90 - 110	2003-05-28
Sulfate		mg/L	12.5	11.9	95	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1864

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2003-05-27

Standard (CCV-1) QC Batch: 1864

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	963.0	96	90 - 110	2003-05-27

Standard (ICV-1) QC Batch: 1865

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1865

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1866

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1008	101	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1866

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1004	100	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1903

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.32	93	90 - 110	2003-05-29

Standard (ICV-1) QC Batch: 1903

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2003-05-29
Fluoride		mg/L	2.50	2.33	93	90 - 110	2003-05-29
Sulfate		mg/L	12.5	12.7	102	90 - 110	2003-05-29

Standard (CCV-1) QC Batch: 1903

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.31	92	90 - 110	2003-05-29

Standard (CCV-1) QC Batch: 1903

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.2	98	90 - 110	2003-05-29
Fluoride		mg/L	2.50	2.35	94	90 - 110	2003-05-29
Sulfate		mg/L	12.5	12.0	96	90 - 110	2003-05-29

Standard (ICV-1) QC Batch: 1917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.31	92	90 - 110	2003-05-30

Standard (ICV-1) QC Batch: 1917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.36	94	90 - 110	2003-05-30

Standard (CCV-1) QC Batch: 1917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.31	92	90 - 110	2003-05-30

Standard (CCV-1) QC Batch: 1917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.34	94	90 - 110	2003-05-30

Standard (ICV-1) QC Batch: 1927

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-05-28
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-05-28
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-05-28
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2003-05-28

Standard (CCV-1) QC Batch: 1927

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-05-28
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-05-28
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-05-28
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2003-05-28

Standard (ICV-1) QC Batch: 1969

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-06-03
Total Alkalinity		mg/L as CaCo3	250	238	95	90 - 110	2003-06-03

Standard (CCV-1) QC Batch: 1969

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-06-03

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	230	92	90 - 110	2003-06-03

Standard (ICV-1) QC Batch: 1970

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-06-03
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2003-06-03

Standard (CCV-1) QC Batch: 1970

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-06-03
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-06-03
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2003-06-03

Standard (ICV-1) QC Batch: 2248

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	24.0	96	90 - 110	2003-06-12
Dissolved Potassium		mg/L	25.0	24.5	98	90 - 110	2003-06-12
Dissolved Magnesium		mg/L	25.0	25.0	100	90 - 110	2003-06-12
Dissolved Sodium		mg/L	25.0	25.0	100	90 - 110	2003-06-12

Standard (CCV-1) QC Batch: 2248

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	26.6	106	90 - 110	2003-06-12
Dissolved Potassium		mg/L	25.0	23.4	94	90 - 110	2003-06-12
Dissolved Magnesium		mg/L	25.0	25.7	103	90 - 110	2003-06-12
Dissolved Sodium		mg/L	25.0	24.2	97	90 - 110	2003-06-12

Standard (CCV-2) QC Batch: 2248

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	26.6	106	90 - 110	2003-06-12

continued ...

8337-56

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CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev. Tex.
SITE MANAGER: Ray Jones
PROJECT NO.: 0-0113
PROJECT NAME: Cooper Jal
PAGE 1 OF 1
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	Cation	Anion	TDS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/21/03	14:05	✓			MW-1	1	✓	✓	✓	8337	
5/22/03	8:30	✓			MW-13	1	✓	✓	✓	38	
5/22/03	8:45	✓			MW-12	1	✓	✓	✓	39	
5/22/03	9:30	✓			MW-3	1	✓	✓	✓	40	
5/22/03	9:55	✓			MW-2A	1	✓	✓	✓	41	
5/22/03	10:00	✓			MW-2	1	✓	✓	✓	42	
5/22/03	10:20	✓			MW-6	1	✓	✓	✓	43	
5/22/03	10:50	✓			MW-5	1	✓	✓	✓	44	
5/22/03	11:05	✓			MW-5A	1	✓	✓	✓	45	
5/22/03	12:55	✓			MW-4A	1	✓	✓	✓	46	
5/22/03	13:10	✓			MW-4	1	✓	✓	✓	47	
5/22/03	13:32	✓			~~MW~~ RW-1	1	✓	✓	✓	48	
5/22/03	13:50	✓			RW-2	1	✓	✓	✓	49	
5/22/03	14:15	✓			MW-10	1	✓	✓	✓	50	
5/22/03		✓			Dup	1	✓	✓	✓	51	
5/22/03	14:40	✓			MW-7	1	✓	✓	✓	52	
5/22/03	15:00	✓			MW-9A	1	✓	✓	✓	53	
5/22/03	15:1[illegible]	✓			MW-9	1	✓	✓	✓	54	

SAMPLED BY: (Signature) Ray Jones DATE: 5/22/03 TIME: 16:00
RELINQUISHED BY: (Signature) Ray Jones DATE: 5/23/03 TIME: 10:40
RECEIVED BY: (Signature) Helen Shelton DATE: 5/23/03 TIME: 10:40

RELINQUISHED BY: (Signature) Helen Shelton DATE: 5/23/03 TIME: 1730
RECEIVED BY: (Signature) Brandi Kitcherson DATE: 5/24/03 TIME: 9:00
SAMPLE SHIPPED BY: (Circle) Greyhound
FEDEX BUS (circled) AIRBILL #: [illegible]-146-130-387-5
HAND DELIVERED UPS OTHER:

40°

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Brandi Kitcherson
DATE: 5-24-03 TIME: 9:00

SAMPLE CONDITION WHEN RECEIVED:
LA CONTACT PERSON:
SAMPLE TYPE:

18 samples - HS

Fax 06/19

3052711

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev. Tex.
SITE MANAGER: Ray Jones
PROJECT NO.: 0-0113
PROJECT NAME: Cooper Jal
PAGE 2 OF 2
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	Cation	Anion	TDS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/22/03	15:35	✓			MW-11	1	✓	✓	✓	8355	
5/22/03	16:00	✓			MW-8	1	✓	✓	✓	8356	

SAMPLED BY: (Signature) Ray Jones DATE: 5/22/03 TIME: 16:20
RELINQUISHED BY: (Signature) Ray Jones DATE: 5/23/03 TIME: 10:21
RECEIVED BY: (Signature) Helen Shelton DATE: 5/23/03 TIME: 10:41

RELINQUISHED BY: (Signature) Helen Shelton DATE: 5/23/03 TIME: 1730
RECEIVED BY: (Signature) Brandi Kitcheson DATE: 5/24/03 TIME: 9:00
SAMPLE SHIPPED BY: (Circle) FEDEX, (BUS) circled, AIRBILL #: Greyhound 40 6-166-130-381-5, HAND DELIVERED, UPS, OTHER:

COMMENTS:
TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace analysis
RECEIVED BY: (Signature)
ADDRESS:
CITY: Lubbock STATE: TX ZIP:
CONTACT: PHONE:
DATE: TIME:

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

SAMPLE CONDITION WHEN RECEIVED:
LA CONTACT PERSON:
SAMPLE TYPE:

2 samples - HS

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cindy Crain
Larson and Associates, Inc.
P. O. Box 50685
Midland, Tx 79710

Report Date: December 9, 2003

Work Order: 3120106

Project Name: Cooper-Jal
Project Number: 0-0113

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
22302	MW-13	water	2003-11-25	09:31	2003-12-01
22303	MW-12	water	2003-11-25	09:58	2003-12-01
22304	MW-3	water	2003-11-25	10:25	2003-12-01
22305	MW-1	water	2003-11-25	10:50	2003-12-01
22306	MW-2A	water	2003-11-25	11:22	2003-12-01
22307	MW-2	water	2003-11-25	11:51	2003-12-01
22308	MW-6	water	2003-11-25	12:26	2003-12-01
22309	MW-5	water	2003-11-25	12:58	2003-12-01
22310	MW-5A	water	2003-11-25	13:15	2003-12-01
22311	MW-4A	water	2003-11-26	07:15	2003-12-01
22312	MW-4	water	2003-11-26	07:44	2003-12-01
22313	RW-1	water	2003-11-26	08:05	2003-12-01
22314	MW-1D	water	2003-11-26	08:55	2003-12-01
22315	RW-2	water	2003-11-26	09:35	2003-12-01
22316	MW-7	water	2003-11-26	10:05	2003-12-01
22317	MW-9	water	2003-11-26	10:37	2003-12-01
22318	MW-9A	water	2003-11-26	10:57	2003-12-01
22319	MW-11	water	2003-11-26	11:25	2003-12-01
22320	MW-8	water	2003-11-26	11:55	2003-12-01
22321	Dup	water	2003-11-26	00:00	2003-12-01
22322	Dup	water	2003-11-26	00:00	2003-12-01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 22302 - MW-13

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6115	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5459	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		226	mg/L as CaCo3	1	4.00
Total Alkalinity		226	mg/L as CaCo3	1	4.00

Sample: 22302 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	70 - 135
4-Bromofluorobenzene (4-BFB)		0.127	mg/L	1	0.100	127	70 - 130

Sample: 22302 - MW-13

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6134	Date Analyzed:	2003-12-03	Analyzed By:	BC
Prep Batch:	5410	Date Prepared:	2003-12-01	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		369	mg/L	1	0.500
Dissolved Potassium		20.0	mg/L	1	0.500
Dissolved Magnesium		117	mg/L	1	0.500
Dissolved Sodium		478	mg/L	1	0.500

Sample: 22302 - MW-13

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1460	mg/L	100	0.500
Fluoride		<2.00	mg/L	10	0.200
Sulfate		372	mg/L	10	0.500

Sample: 22302 - MW-13

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.22	mg/L	10	0.200

Sample: 22302 - MW-13

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		3445	mg/L	5	10.00

Sample: 22303 - MW-12

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6115	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5459	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		142	mg/L as CaCo3	1	4.00
Total Alkalinity		142	mg/L as CaCo3	1	4.00

Sample: 22303 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100

continued ...

sample 22303 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.110	mg/L	1	0.100	110	70 - 135
4-Bromofluorobenzene (4-BFB)	[1]	0.132	mg/L	1	0.100	132	70 - 130

Sample: 22303 - MW-12

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6134	Date Analyzed:	2003-12-03	Analyzed By:	BC
Prep Batch:	5410	Date Prepared:	2003-12-01	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		74.7		mg/L	1	0.500
Dissolved Potassium		5.41		mg/L	1	0.500
Dissolved Magnesium		20.9		mg/L	1	0.500
Dissolved Sodium		52.5		mg/L	1	0.500

Sample: 22303 - MW-12

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		93.1		mg/L	5	0.500
Fluoride		1.18		mg/L	5	0.200
Sulfate		90.9		mg/L	5	0.500

Sample: 22303 - MW-12

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		2.36		mg/L	5	0.200

Sample: 22303 - MW-12

[1]High BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		548.0		mg/L	2	10.00

Sample: 22304 - MW-3

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5461	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		160		mg/L as CaCo3	1	4.00
Total Alkalinity		160		mg/L as CaCo3	1	4.00

Sample: 22304 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	70 - 135
4-Bromofluorobenzene (4-BFB)	[2]	0.133	mg/L	1	0.100	133	70 - 130

Sample: 22304 - MW-3

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		46.5		mg/L	1	0.500
Dissolved Potassium		5.19		mg/L	1	0.500

continued ...

[2]High BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

sample 22304 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Magnesium		18.0	mg/L	1	0.500
Dissolved Sodium		51.7	mg/L	1	0.500

Sample: 22304 - MW-3

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		31.4	mg/L	5	0.500
Fluoride		1.35	mg/L	5	0.200
Sulfate		103	mg/L	5	0.500

Sample: 22304 - MW-3

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.30	mg/L	5	0.200

Sample: 22304 - MW-3

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		440.0	mg/L	1	10.00

Sample: 22305 - MW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5461	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00

continued ...

sample 22305 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Bicarbonate Alkalinity		250	mg/L as CaCo3	1	4.00
Total Alkalinity		250	mg/L as CaCo3	1	4.00

Sample: 22305 - MW-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.107	mg/L	1	0.100	107	70 - 135
4-Bromofluorobenzene (4-BFB)		0.130	mg/L	1	0.100	130	70 - 130

Sample: 22305 - MW-1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		19.2	mg/L	1	0.500
Dissolved Potassium		18.5	mg/L	1	0.500
Dissolved Magnesium		22.0	mg/L	1	0.500
Dissolved Sodium		294	mg/L	1	0.500

Sample: 22305 - MW-1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		402	mg/L	50	0.500
Fluoride		7.03	mg/L	5	0.200
Sulfate		125	mg/L	5	0.500

Sample: 22305 - MW-1

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.72	mg/L	5	0.200

Sample: 22305 - MW-1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1158	mg/L	2	10.00

Sample: 22306 - MW-2A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5461	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		166	mg/L as CaCo3	1	4.00
Total Alkalinity		166	mg/L as CaCo3	1	4.00

Sample: 22306 - MW-2A

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.109	mg/L	1	0.100	109	70 - 135
4-Bromofluorobenzene (4-BFB)	[3]	0.132	mg/L	1	0.100	132	70 - 130

[3]High BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

Sample: 22306 - MW-2A

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		51.7		mg/L	1	0.500
Dissolved Potassium		3.98		mg/L	1	0.500
Dissolved Magnesium		14.4		mg/L	1	0.500
Dissolved Sodium		43.8		mg/L	1	0.500

Sample: 22306 - MW-2A

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		43.1		mg/L	5	0.500
Fluoride		1.00		mg/L	5	0.200
Sulfate		77.4		mg/L	5	0.500

Sample: 22306 - MW-2A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		2.23		mg/L	5	0.200

Sample: 22306 - MW-2A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		452.0		mg/L	2	10.00

Sample: 22307 - MW-2

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS

Prep Batch: 5461 Date Prepared: 2003-12-02 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		160	mg/L as CaCo3	1	4.00
Total Alkalinity		160	mg/L as CaCo3	1	4.00

Sample: 22307 - MW-2

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 6071 Date Analyzed: 2003-12-01 Analyzed By: MT
Prep Batch: 5429 Date Prepared: 2003-12-01 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	70 - 135
4-Bromofluorobenzene (4-BFB)		0.130	mg/L	1	0.100	130	70 - 130

Sample: 22307 - MW-2

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 6160 Date Analyzed: 2003-12-04 Analyzed By: BC
Prep Batch: 5441 Date Prepared: 2003-12-02 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		555	mg/L	1	0.500
Dissolved Potassium		32.0	mg/L	1	0.500
Dissolved Magnesium		227	mg/L	1	0.500
Dissolved Sodium		1120	mg/L	1	0.500

Sample: 22307 - MW-2

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 6076 Date Analyzed: 2003-12-02 Analyzed By: JSW
Prep Batch: 5433 Date Prepared: 2003-12-01 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3330	mg/L	500	0.500
Fluoride		<4.00	mg/L	20	0.200
Sulfate		446	mg/L	20	0.500

Sample: 22307 - MW-2

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		5.63		mg/L	20	0.200

Sample: 22307 - MW-2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		6760		mg/L	5	10.00

Sample: 22308 - MW-6

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5461	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		154		mg/L as CaCo3	1	4.00
Total Alkalinity		154		mg/L as CaCo3	1	4.00

Sample: 22308 - MW-6

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	70 - 135
4-Bromofluorobenzene (4-BFB)	[4]	0.132	mg/L	1	0.100	132	70 - 130

[4]High BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

Sample: 22308 - MW-6

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		53.6		mg/L	1	0.500
Dissolved Potassium		4.97		mg/L	1	0.500
Dissolved Magnesium		18.7		mg/L	1	0.500
Dissolved Sodium		51.7		mg/L	1	0.500

Sample: 22308 - MW-6

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		53.6		mg/L	5	0.500
Fluoride		1.40		mg/L	5	0.200
Sulfate		98.0		mg/L	5	0.500

Sample: 22308 - MW-6

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6076	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5433	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		2.18		mg/L	5	0.200

Sample: 22308 - MW-6

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		482.0		mg/L	2	10.00

Sample: 22309 - MW-5

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS

Prep Batch: 5461 Date Prepared: 2003-12-02 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		168	mg/L as CaCo3	1	4.00
Total Alkalinity		168	mg/L as CaCo3	1	4.00

Sample: 22309 - MW-5

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 6071 Date Analyzed: 2003-12-01 Analyzed By: MT
Prep Batch: 5429 Date Prepared: 2003-12-01 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	70 - 135
4-Bromofluorobenzene (4-BFB)		0.130	mg/L	1	0.100	130	70 - 130

Sample: 22309 - MW-5

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 6160 Date Analyzed: 2003-12-04 Analyzed By: BC
Prep Batch: 5441 Date Prepared: 2003-12-02 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		978	mg/L	1	0.500
Dissolved Potassium		54.9	mg/L	1	0.500
Dissolved Magnesium		365	mg/L	1	0.500
Dissolved Sodium		1680	mg/L	1	0.500

Sample: 22309 - MW-5

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 6077 Date Analyzed: 2003-12-02 Analyzed By: JSW
Prep Batch: 5434 Date Prepared: 2003-12-01 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5120	mg/L	500	0.500
Fluoride		<4.00	mg/L	20	0.200
Sulfate		739	mg/L	20	0.500

Sample: 22309 - MW-5

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6077	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5434	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		6.77	mg/L	20	0.200

Sample: 22309 - MW-5

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6096	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5449	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		11940	mg/L	10	10.00

Sample: 22310 - MW-5A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5461	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		332	mg/L as CaCo3	1	4.00
Total Alkalinity		332	mg/L as CaCo3	1	4.00

Sample: 22310 - MW-5A

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	70 - 135
4-Bromofluorobenzene (4-BFB)	[5]	0.131	mg/L	1	0.100	131	70 - 130

[5]High BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

Sample: 22310 - MW-5A

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		60.9	mg/L	1	0.500
Dissolved Potassium		4.08	mg/L	1	0.500
Dissolved Magnesium		14.6	mg/L	1	0.500
Dissolved Sodium		45.0	mg/L	1	0.500

Sample: 22310 - MW-5A

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6077	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5434	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		34.1	mg/L	5	0.500
Fluoride		1.05	mg/L	5	0.200
Sulfate		75.5	mg/L	5	0.500

Sample: 22310 - MW-5A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6077	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5434	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.20	mg/L	5	0.200

Sample: 22310 - MW-5A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		422.0	mg/L	2	10.00

Sample: 22311 - MW-4A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS

Prep Batch: 5461 Date Prepared: 2003-12-02 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		158	mg/L as CaCo3	1	4.00
Total Alkalinity		158	mg/L as CaCo3	1	4.00

Sample: 22311 - MW-4A

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 6071 Date Analyzed: 2003-12-01 Analyzed By: MT
Prep Batch: 5429 Date Prepared: 2003-12-01 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	70 - 135
4-Bromofluorobenzene (4-BFB)		0.127	mg/L	1	0.100	127	70 - 130

Sample: 22311 - MW-4A

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 6160 Date Analyzed: 2003-12-04 Analyzed By: BC
Prep Batch: 5441 Date Prepared: 2003-12-02 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		337	mg/L	1	0.500
Dissolved Potassium		15.2	mg/L	1	0.500
Dissolved Magnesium		79.3	mg/L	1	0.500
Dissolved Sodium		329	mg/L	1	0.500

Sample: 22311 - MW-4A

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 6158 Date Analyzed: 2003-12-08 Analyzed By: JSW
Prep Batch: 5500 Date Prepared: 2003-12-05 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1060	mg/L	100	0.500
Fluoride		.<4.0	mg/L	20	0.200
Sulfate		182	mg/L	20	0.500

Sample: 22311 - MW-4A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		5.82		mg/L	20	0.200

Sample: 22311 - MW-4A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		2585		mg/L	5	10.00

Sample: 22312 - MW-4

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS
Prep Batch:	5461	Date Prepared:	2003-12-02	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		218		mg/L as CaCo3	1	4.00
Total Alkalinity		218		mg/L as CaCo3	1	4.00

Sample: 22312 - MW-4

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	70 - 135
4-Bromofluorobenzene (4-BFB)	[6]	0.131	mg/L	1	0.100	131	70 - 130

[6]High BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

Sample: 22312 - MW-4

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		1830		mg/L	1	0.500
Dissolved Potassium		62.0		mg/L	1	0.500
Dissolved Magnesium		889		mg/L	1	0.500
Dissolved Sodium		4620		mg/L	1	0.500

Sample: 22312 - MW-4

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		12100		mg/L	1000	0.500
Fluoride		<8.00		mg/L	40	0.200
Sulfate		1400		mg/L	40	0.500

Sample: 22312 - MW-4

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		12.3		mg/L	40	0.200

Sample: 22312 - MW-4

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		54450		mg/L	50	10.00

Sample: 22313 - RW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6114	Date Analyzed:	2003-12-02	Analyzed By:	RS

Prep Batch: 5461 Date Prepared: 2003-12-02 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		184	mg/L as CaCo3	1	4.00
Total Alkalinity		184	mg/L as CaCo3	1	4.00

Sample: 22313 - RW-1

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 6071 Date Analyzed: 2003-12-01 Analyzed By: MT
Prep Batch: 5429 Date Prepared: 2003-12-01 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	70 - 135
4-Bromofluorobenzene (4-BFB)		0.127	mg/L	1	0.100	127	70 - 130

Sample: 22313 - RW-1

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 6160 Date Analyzed: 2003-12-04 Analyzed By: BC
Prep Batch: 5441 Date Prepared: 2003-12-02 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		199	mg/L	1	0.500
Dissolved Potassium		38.6	mg/L	1	0.500
Dissolved Magnesium		147	mg/L	1	0.500
Dissolved Sodium		1080	mg/L	1	0.500

Sample: 22313 - RW-1

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 6078 Date Analyzed: 2003-12-02 Analyzed By: JSW
Prep Batch: 5435 Date Prepared: 2003-12-01 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1990	mg/L	100	0.500
Fluoride		<4.00	mg/L	20	0.200
Sulfate		324	mg/L	20	0.500

Sample: 22313 - RW-1

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		20.0		mg/L	20	0.200

Sample: 22313 - RW-1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		5050		mg/L	10	10.00

Sample: 22314 - MW-1D

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		152		mg/L as CaCo3	1	4.00
Total Alkalinity		152		mg/L as CaCo3	1	4.00

Sample: 22314 - MW-1D

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6071	Date Analyzed:	2003-12-01	Analyzed By:	MT
Prep Batch:	5429	Date Prepared:	2003-12-01	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	70 - 135
4-Bromofluorobenzene (4-BFB)		0.130	mg/L	1	0.100	130	70 - 130

Sample: 22314 - MW-1D

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		120		mg/L	1	0.500
Dissolved Potassium		6.96		mg/L	1	0.500
Dissolved Magnesium		35.7		mg/L	1	0.500
Dissolved Sodium		64.0		mg/L	1	0.500

Sample: 22314 - MW-1D

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		220		mg/L	5	0.500
Fluoride		1.54		mg/L	5	0.200
Sulfate		103		mg/L	5	0.500

Sample: 22314 - MW-1D

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		2.26		mg/L	5	0.200

Sample: 22314 - MW-1D

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		752.0		mg/L	2	10.00

Sample: 22315 - RW-2

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		640	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		64.0	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	1	4.00
Total Alkalinity	[7]	704	mg/L as CaCo3	1	4.00

Sample: 22315 - RW-2

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.106	mg/L	1	0.100	106	68.6 - 120

Sample: 22315 - RW-2

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		988	mg/L	1	0.500
Dissolved Potassium		23.8	mg/L	1	0.500
Dissolved Magnesium		<0.500	mg/L	1	0.500
Dissolved Sodium		240	mg/L	1	0.500

Sample: 22315 - RW-2

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1480	mg/L	100	0.500
Fluoride		<5.00	mg/L	25	0.200
Sulfate		38.3	mg/L	25	0.500

[7]Sample had a high pH in the original bottle

Sample: 22315 - RW-2

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		5.81		mg/L	25	0.200

Sample: 22315 - RW-2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		3535		mg/L	5	10.00

Sample: 22316 - MW-7

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		136		mg/L as CaCo3	1	4.00
Total Alkalinity		136		mg/L as CaCo3	1	4.00

Sample: 22316 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.105	mg/L	1	0.100	105	68.6 - 120

Sample: 22316 - MW-7

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Dissolved Calcium		95.7	mg/L	1	0.500
Dissolved Potassium		7.91	mg/L	1	0.500
Dissolved Magnesium		31.0	mg/L	1	0.500
Dissolved Sodium		63.6	mg/L	1	0.500

Sample: 22316 - MW-7

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		189	mg/L	5	0.500
Fluoride		1.29	mg/L	5	0.200
Sulfate		93.5	mg/L	5	0.500

Sample: 22316 - MW-7

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Nitrate-N		2.23	mg/L	5	0.200

Sample: 22316 - MW-7

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		704.0	mg/L	2	10.00

Sample: 22317 - MW-9

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		150	mg/L as CaCo3	1	4.00
Total Alkalinity		150	mg/L as CaCo3	1	4.00

Sample: 22317 - MW-9

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		0.00120	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.105	mg/L	1	0.100	105	68.6 - 120

Sample: 22317 - MW-9

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		57.7	mg/L	1	0.500
Dissolved Potassium		4.69	mg/L	1	0.500
Dissolved Magnesium		16.6	mg/L	1	0.500
Dissolved Sodium		46.3	mg/L	1	0.500

Sample: 22317 - MW-9

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		31.8	mg/L	5	0.500
Fluoride		1.99	mg/L	5	0.200
Sulfate		99.8	mg/L	5	0.500

Sample: 22317 - MW-9

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.34	mg/L	5	0.200

Sample: 22317 - MW-9

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		452.0	mg/L	1	10.00

Sample: 22318 - MW-9A

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		118	mg/L as CaCo3	1	4.00
Total Alkalinity		118	mg/L as CaCo3	1	4.00

Sample: 22318 - MW-9A

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[8]	0.203	mg/L	1	0.100	203	65.5 - 119

continued ...

[8]High surrogate recovery due to prep. ICV/CCV show the method to be in control.

sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)	[9]	0.213	mg/L	1	0.100	213	68.6 - 120

Sample: 22318 - MW-9A

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		107	mg/L	1	0.500
Dissolved Potassium		5.31	mg/L	1	0.500
Dissolved Magnesium		25.1	mg/L	1	0.500
Dissolved Sodium		53.2	mg/L	1	0.500

Sample: 22318 - MW-9A

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		216	mg/L	5	0.500
Fluoride		1.14	mg/L	5	0.200
Sulfate		62.7	mg/L	5	0.500

Sample: 22318 - MW-9A

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.26	mg/L	5	0.200

Sample: 22318 - MW-9A

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6121	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5468	Date Prepared:	2003-12-02	Prepared By:	JSW

[9]High surrogate recovery due to prep. ICV/CCV show the method to be in control.

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		648.0	mg/L	2	10.00

Sample: 22319 - MW-11

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		160	mg/L as CaCo3	1	4.00
Total Alkalinity		160	mg/L as CaCo3	1	4.00

Sample: 22319 - MW-11

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.107	mg/L	1	0.100	107	68.6 - 120

Sample: 22319 - MW-11

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		59.2	mg/L	1	0.500
Dissolved Potassium		4.67	mg/L	1	0.500
Dissolved Magnesium		16.6	mg/L	1	0.500
Dissolved Sodium		48.6	mg/L	1	0.500

Sample: 22319 - MW-11

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		32.4	mg/L	5	0.500
Fluoride		1.83	mg/L	5	0.200
Sulfate		96.4	mg/L	5	0.500

Sample: 22319 - MW-11

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6078	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5435	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.23	mg/L	5	0.200

Sample: 22319 - MW-11

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6124	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5471	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		448.0	mg/L	1	10.00

Sample: 22320 - MW-8

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		142	mg/L as CaCo3	1	4.00
Total Alkalinity		142	mg/L as CaCo3	1	4.00

Sample: 22320 - MW-8

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0993	mg/L	1	0.100	99	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.103	mg/L	1	0.100	103	68.6 - 120

Sample: 22320 - MW-8

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		55.3	mg/L	1	0.500
Dissolved Potassium		5.31	mg/L	1	0.500
Dissolved Magnesium		18.2	mg/L	1	0.500
Dissolved Sodium		50.2	mg/L	1	0.500

Sample: 22320 - MW-8

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		31.7	mg/L	5	0.500
Fluoride		1.59	mg/L	5	0.200
Sulfate		95.6	mg/L	5	0.500

Sample: 22320 - MW-8

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6158	Date Analyzed:	2003-12-08	Analyzed By:	JSW
Prep Batch:	5500	Date Prepared:	2003-12-05	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.38	mg/L	5	0.200

Sample: 22320 - MW-8

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A

QC Batch: 6124 Date Analyzed: 2003-12-04 Analyzed By: JSW
Prep Batch: 5471 Date Prepared: 2003-12-02 Prepared By: JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		443.0	mg/L	1	10.00

Sample: 22321 - Dup

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 6153 Date Analyzed: 2003-12-04 Analyzed By: RS
Prep Batch: 5499 Date Prepared: 2003-12-04 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		126	mg/L as CaCo3	1	4.00
Total Alkalinity		126	mg/L as CaCo3	1	4.00

Sample: 22321 - Dup

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 6098 Date Analyzed: 2003-12-02 Analyzed By: BS
Prep Batch: 5450 Date Prepared: 2003-12-02 Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.105	mg/L	1	0.100	105	68.6 - 120

Sample: 22321 - Dup

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 6160 Date Analyzed: 2003-12-04 Analyzed By: BC
Prep Batch: 5441 Date Prepared: 2003-12-02 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		105	mg/L	1	0.500
Dissolved Potassium		7.57	mg/L	1	0.500
Dissolved Magnesium		35.4	mg/L	1	0.500
Dissolved Sodium		64.7	mg/L	1	0.500

Sample: 22321 - Dup

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6206	Date Analyzed:	2003-12-09	Analyzed By:	JSW
Prep Batch:	5544	Date Prepared:	2003-12-08	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		237	mg/L	5	0.500
Fluoride		1.42	mg/L	5	0.200
Sulfate		93.2	mg/L	5	0.500

Sample: 22321 - Dup

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6206	Date Analyzed:	2003-12-09	Analyzed By:	JSW
Prep Batch:	5544	Date Prepared:	2003-12-08	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Nitrate-N		2.36	mg/L	5	0.200

Sample: 22321 - Dup

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	6124	Date Analyzed:	2003-12-04	Analyzed By:	JSW
Prep Batch:	5471	Date Prepared:	2003-12-02	Prepared By:	JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		708.0	mg/L	2	10.00

Sample: 22322 - Dup

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	6153	Date Analyzed:	2003-12-04	Analyzed By:	RS
Prep Batch:	5499	Date Prepared:	2003-12-04	Prepared By:	RS

Parameter	Flag	Result	RL Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		150	mg/L as CaCo3	1	4.00
Total Alkalinity		150	mg/L as CaCo3	1	4.00

Sample: 22322 - Dup

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	6098	Date Analyzed:	2003-12-02	Analyzed By:	BS
Prep Batch:	5450	Date Prepared:	2003-12-02	Prepared By:	BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	65.5 - 119
4-Bromofluorobenzene (4-BFB)		0.105	mg/L	1	0.100	105	68.6 - 120

Sample: 22322 - Dup

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	6160	Date Analyzed:	2003-12-04	Analyzed By:	BC
Prep Batch:	5441	Date Prepared:	2003-12-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		57.3	mg/L	1	0.500
Dissolved Potassium		3.93	mg/L	1	0.500
Dissolved Magnesium		14.2	mg/L	1	0.500
Dissolved Sodium		42.9	mg/L	1	0.500

Sample: 22322 - Dup

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6077	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5434	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		32.8	mg/L	5	0.500
Fluoride		1.04	mg/L	5	0.200
Sulfate		74.3	mg/L	5	0.500

Sample: 22322 - Dup

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	6077	Date Analyzed:	2003-12-02	Analyzed By:	JSW
Prep Batch:	5434	Date Prepared:	2003-12-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		2.21	mg/L	5	0.200

Sample: 22322 - Dup

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A

QC Batch: 6124 Date Analyzed: 2003-12-04 Analyzed By: JSW
Prep Batch: 5471 Date Prepared: 2003-12-02 Prepared By: JSW

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		430.0	mg/L	2	10.00

Method Blank (1) QC Batch: 6071

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0972	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)		0.116	mg/L	1	0.100	116	70 - 130

Method Blank (1) QC Batch: 6076

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 6076

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 6077

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 6077

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5

continued ...

method blank continued ...

Parameter	Flag	Result	Units	RL
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 6078

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 6078

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 6096

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 6098

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.104	mg/L	1	0.100	104	70 - 130

Method Blank (1) QC Batch: 6114

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1

continued ...

method blank continued ...

Parameter	Flag	Result	Units	RL
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 6115

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 6121

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 6124

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 6134

Parameter	Flag	Result	Units	RL
Dissolved Calcium		<0.500	mg/L	0.5
Dissolved Potassium		<0.500	mg/L	0.5
Dissolved Magnesium		<0.500	mg/L	0.5
Dissolved Sodium		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 6153

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 6158

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 6158

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 6160

Parameter	Flag	Result	Units	RL
Dissolved Calcium		<0.500	mg/L	0.5
Dissolved Potassium		<0.500	mg/L	0.5
Dissolved Magnesium		<0.500	mg/L	0.5
Dissolved Sodium		1.65	mg/L	0.5

Method Blank (1) QC Batch: 6206

Parameter	Flag	Result	Units	RL
Nitrate-N		<0.200	mg/L	0.2

Method Blank (1) QC Batch: 6206

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Fluoride		<0.200	mg/L	0.2
Sulfate		<0.500	mg/L	0.5

Duplicate (1) QC Batch: 6096

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	6600	6760	mg/L	5	2	14.2

Duplicate (1) QC Batch: 6114

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	186	184	mg/L as CaCo3	1	1	20
Total Alkalinity	186	184	mg/L as CaCo3	1	1	5.16

Duplicate (1) QC Batch: 6115

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	480	488	mg/L as CaCo3	1	2	20
Total Alkalinity	480	488	mg/L as CaCo3	1	2	5.16

Duplicate (1) QC Batch: 6121

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	806.0	810.0	mg/L	2	0	14.2

Duplicate (1) QC Batch: 6124

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	457.0	448.0	mg/L	1	2	14.2

Duplicate (1) QC Batch: 6153

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	320	314	mg/L as CaCo3	1	2	20
Total Alkalinity	320	314	mg/L as CaCo3	1	2	5.16

Laboratory Control Spike (LCS-1) QC Batch: 6071

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.102	0.104	mg/L	1	0.100	<0.000238	102	2	70 - 130	20
Toluene	0.0987	0.0992	mg/L	1	0.100	<0.000532	99	0	70 - 130	20
Ethylbenzene	0.105	0.105	mg/L	1	0.100	<0.00160	105	0	70 - 130	20
Xylene (isomers)	0.325	0.327	mg/L	1	0.300	<0.00571	108	1	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.103	mg/L	1	0.100	103	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.130	0.130	mg/L	1	0.100	130	130	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 6076

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.40	2.36	mg/L	1	2.50	<0.126	96	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6076

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.1	12.1	mg/L	1	12.5	<1.49	97	0	90 - 110	20
Fluoride	2.33	2.35	mg/L	1	2.50	<0.0153	93	1	90 - 110	20
Sulfate	12.6	12.4	mg/L	1	12.5	<0.171	101	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6077

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.35	2.36	mg/L	1	2.50	<0.126	94	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6077

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.0	12.1	mg/L	1	12.5	<1.49	96	1	90 - 110	20
Fluoride	2.31	2.32	mg/L	1	2.50	<0.0153	92	0	90 - 110	20
Sulfate	12.5	12.4	mg/L	1	12.5	<0.171	100	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6078

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.39	2.38	mg/L	1	2.50	<0.126	96	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6078

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.1	12.0	mg/L	1	12.5	<1.49	97	1	90 - 110	20
Fluoride	2.32	2.33	mg/L	1	2.50	<0.0153	93	0	90 - 110	20
Sulfate	12.4	12.6	mg/L	1	12.5	<0.171	99	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6098

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.104	0.102	mg/L	1	0.100	<0.000410	104	2	79.7 - 110	20
Benzene	0.104	0.102	mg/L	1	0.100	<0.000410	104	2	79.7 - 110	20
Toluene	0.103	0.102	mg/L	1	0.100	<0.000760	103	1	81.7 - 108	20
Toluene	0.103	0.102	mg/L	1	0.100	<0.000760	103	1	81.7 - 108	20
Ethylbenzene	0.0994	0.0979	mg/L	1	0.100	<0.00100	99	2	80.4 - 109	20
Ethylbenzene	0.0994	0.0979	mg/L	1	0.100	<0.00100	99	2	80.4 - 109	20
Xylene (isomers)	0.314	0.309	mg/L	1	0.300	<0.00100	105	2	81 - 109	20
Xylene (isomers)	0.314	0.309	mg/L	1	0.300	<0.00100	105	2	81 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.102	mg/L	1	0.100	102	102	65.5 - 119
Trifluorotoluene (TFT)	0.102	0.102	mg/L	1	0.100	102	102	65.5 - 119
4-Bromofluorobenzene (4-BFB)	0.104	0.104	mg/L	1	0.100	104	104	68.6 - 120
4-Bromofluorobenzene (4-BFB)	0.104	0.104	mg/L	1	0.100	104	104	68.6 - 120

Laboratory Control Spike (LCS-1) QC Batch: 6134

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	100	98.8	mg/L	1	100	<0.183	100	1	85 - 115	20
Dissolved Potassium	99.1	96.3	mg/L	1	100	<0.135	99	3	85 - 115	20
Dissolved Magnesium	101	99.2	mg/L	1	100	<0.183	101	2	85 - 115	20
Dissolved Sodium	95.3	96.5	mg/L	1	100	<0.105	95	1	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6158

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.41	2.39	mg/L	1	2.50	<0.126	96	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6158

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.3	11.3	mg/L	1	12.5	<1.49	90	0	90 - 110	20
Fluoride	2.41	2.39	mg/L	1	2.50	<0.0153	96	1	90 - 110	20
Sulfate	11.7	11.7	mg/L	1	12.5	<0.171	94	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6160

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	99.9	101	mg/L	1	100	<0.183	100	1	85 - 115	20
Dissolved Potassium	104	104	mg/L	1	100	<0.135	104	0	85 - 115	20
Dissolved Magnesium	98.9	98.9	mg/L	1	100	<0.183	99	0	85 - 115	20
Dissolved Sodium	101	101	mg/L	1	100	<0.105	101	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6206

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.39	2.38	mg/L	1	2.50	<0.126	96	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 6206

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.3	11.2	mg/L	1	12.5	<1.49	90	1	90 - 110	20
Fluoride	2.36	2.36	mg/L	1	2.50	<0.0153	94	0	90 - 110	20
Sulfate	11.5	11.5	mg/L	1	12.5	<0.171	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6076

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	127	127	mg/L	50	2.50	10.9	93	0	65.8 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6076

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	1050	1050	mg/L	50	12.5	402	104	0	56.4 - 130	20
Fluoride	127	128	mg/L	50	2.50	11.7	92	1	65.1 - 121	20

continued ...

matrix spikes continued ...

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Sulfate	815	817	mg/L	50	12.5	174	102	0	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6077

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	130	129	mg/L	50	2.50	14.5	92	1	65.8 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6077

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	860	867	mg/L	50	12.5	208	104	1	56.4 - 130	20
Fluoride	123	126	mg/L	50	2.50	8.55	92	2	65.1 - 121	20
Sulfate	977	976	mg/L	50	12.5	317	106	0	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6078

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	255	252	mg/L	100	2.50	20	94	1	65.8 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6078

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	3310	3330	mg/L	100	12.5	1990	106	1	56.4 - 130	20
Fluoride	243	244	mg/L	100	2.50	13.3	92	0	65.1 - 121	20
Sulfate	1630	1630	mg/L	100	12.5	324	104	0	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2) QC Batch: 6134

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	[10]	1080	1110	mg/L	1	100	980	100	3	75 - 125	20

continued ...

[10]ms recovery out of range due to matrix effect/dilution factor, use lcs/lcsd

matrix spikes continued ...

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Potassium	[11][12]	172	179	mg/L	1	100	45.9	126	4	75 - 125	20
Dissolved Magnesium		514	513	mg/L	1	100	389	125	0	75 - 125	20
Dissolved Sodium	[13][14]	6030	6270	mg/L	1	100	6330	300	4	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6158

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	253	246	mg/L	100	2.50	21.2	93	3	65.8 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6158

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	2580	2580	mg/L	100	12.5	1480	88	0	56.4 - 130	20
Fluoride	237	242	mg/L	100	2.50	<1.53	95	2	65.1 - 121	20
Sulfate	1210	1180	mg/L	100	12.5	74.7	91	2	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6160

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	151	151	mg/L	1	100	46.5	104	0	75 - 125	20
Dissolved Potassium	125	120	mg/L	1	100	5.19	120	4	75 - 125	20
Dissolved Magnesium	116	117	mg/L	1	100	18	98	1	75 - 125	20
Dissolved Sodium	158	152	mg/L	1	100	51.7	106	4	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2) QC Batch: 6160

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	205	214	mg/L	1	100	120	85	4	75 - 125	20
Dissolved Potassium	113	122	mg/L	1	100	6.96	106	8	75 - 125	20
Dissolved Magnesium	130	136	mg/L	1	100	35.7	94	4	75 - 125	20
Dissolved Sodium	168	168	mg/L	1	100	64	104	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

[11]ms recovery out of range due to matrix effect/dilution factor, use lcs/lcsd
[12]ms recovery out of range due to matrix effect/dilution factor, use lcs/lcsd
[13]ms recovery out of range due to matrix effect/dilution factor, use lcs/lcsd
[14]ms recovery out of range due to matrix effect/dilution factor, use lcs/lcsd

Matrix Spike (MS-1) QC Batch: 6206

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2530	2530	mg/L	1000	2.50	<126	101	0	65.8 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 6206

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	25600	25700	mg/L	1000	12.5	14600	88	0	56.4 - 130	20
Fluoride	2390	2380	mg/L	1000	2.50	<15.3	96	0	65.1 - 121	20
Sulfate	17100	17200	mg/L	1000	12.5	5650	92	0	69.9 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 6071

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.108	108	85 - 115	2003-12-01
Toluene		mg/L	0.100	0.104	104	85 - 115	2003-12-01
Ethylbenzene		mg/L	0.100	0.108	108	85 - 115	2003-12-01
Xylene (isomers)		mg/L	0.300	0.334	111	85 - 115	2003-12-01

Standard (CCV-1) QC Batch: 6071

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2003-12-01
Toluene		mg/L	0.100	0.0999	100	85 - 115	2003-12-01
Ethylbenzene		mg/L	0.100	0.107	107	85 - 115	2003-12-01
Xylene (isomers)		mg/L	0.300	0.331	110	85 - 115	2003-12-01

Standard (CCV-2) QC Batch: 6071

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.107	107	85 - 115	2003-12-01
Toluene		mg/L	0.100	0.104	104	85 - 115	2003-12-01
Ethylbenzene		mg/L	0.100	0.110	110	85 - 115	2003-12-01
Xylene (isomers)		mg/L	0.300	0.341	114	85 - 115	2003-12-01

Standard (ICV-1) QC Batch: 6076

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6076

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2003-12-02
Fluoride		mg/L	2.50	2.35	94	90 - 110	2003-12-02
Sulfate		mg/L	12.5	12.7	102	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6076

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6076

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2003-12-02
Fluoride		mg/L	2.50	2.35	94	90 - 110	2003-12-02
Sulfate		mg/L	12.5	12.6	101	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6077

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6077

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2003-12-02
Fluoride		mg/L	2.50	2.35	94	90 - 110	2003-12-02
Sulfate		mg/L	12.5	12.6	101	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6077

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6077

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2003-12-02
Fluoride		mg/L	2.50	2.33	93	90 - 110	2003-12-02
Sulfate		mg/L	12.5	12.6	101	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6078

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6078

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2003-12-02
Fluoride		mg/L	2.50	2.33	93	90 - 110	2003-12-02
Sulfate		mg/L	12.5	12.6	101	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6078

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6078

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2003-12-02
Fluoride		mg/L	2.50	2.33	93	90 - 110	2003-12-02
Sulfate		mg/L	12.5	12.5	100	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6096

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	995.0	100	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6096

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1016	102	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6098

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.101	101	85 - 115	2003-12-02
Toluene		mg/L	0.100	0.101	101	85 - 115	2003-12-02
Ethylbenzene		mg/L	0.100	0.0980	98	85 - 115	2003-12-02
Xylene (isomers)	[15]	mg/L	0.300	0.356	119	85 - 115	2003-12-02

Standard (CCV-1) QC Batch: 6098

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.105	105	85 - 115	2003-12-02
Toluene		mg/L	0.100	0.105	105	85 - 115	2003-12-02
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2003-12-02
Xylene (isomers)		mg/L	0.300	0.320	107	85 - 115	2003-12-02

Standard (CCV-2) QC Batch: 6098

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.103	103	85 - 115	2003-12-02
Toluene		mg/L	0.100	0.103	103	85 - 115	2003-12-02
Ethylbenzene		mg/L	0.100	0.0993	99	85 - 115	2003-12-02
Xylene (isomers)		mg/L	0.300	0.314	105	85 - 115	2003-12-02

Standard (ICV-1) QC Batch: 6114

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02

continued ...

[15]Xylene outside normal limits in ICV/CCV. Average of ICV/CCV components show the method to be in control.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-12-02
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6114

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-12-02
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6115

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-12-02
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2003-12-02

Standard (CCV-1) QC Batch: 6115

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-02
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-12-02
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2003-12-02

Standard (ICV-1) QC Batch: 6121

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1003	100	90 - 110	2003-12-04

Standard (CCV-1) QC Batch: 6121

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1034	103	90 - 110	2003-12-04

Standard (ICV-1) QC Batch: 6124

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1034	103	90 - 110	2003-12-04

Standard (CCV-1) QC Batch: 6124

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1013	101	90 - 110	2003-12-04

Standard (CCV-1) QC Batch: 6134

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	25.3	101	90 - 110	2003-12-03
Dissolved Potassium		mg/L	25.0	23.9	96	90 - 110	2003-12-03
Dissolved Magnesium		mg/L	25.0	24.6	98	90 - 110	2003-12-03
Dissolved Sodium		mg/L	25.0	24.5	98	90 - 110	2003-12-03

Standard (CCV-2) QC Batch: 6134

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	26.9	108	90 - 110	2003-12-03
Dissolved Potassium		mg/L	25.0	25.3	101	90 - 110	2003-12-03
Dissolved Magnesium		mg/L	25.0	26.5	106	90 - 110	2003-12-03
Dissolved Sodium		mg/L	25.0	25.8	103	90 - 110	2003-12-03

Standard (ICV-1) QC Batch: 6153

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-04
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-04
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-12-04
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2003-12-04

Standard (CCV-1) QC Batch: 6153

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-04
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2003-12-04

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2003-12-04
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2003-12-04

Standard (ICV-1) QC Batch: 6158

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2003-12-08

Standard (ICV-1) QC Batch: 6158

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.4	91	90 - 110	2003-12-08
Chloride		mg/L	12.5	11.4	91	90 - 110	2003-12-08
Fluoride		mg/L	2.50	2.50	100	90 - 110	2003-12-08
Sulfate		mg/L	12.5	11.7	94	90 - 110	2003-12-08

Standard (CCV-1) QC Batch: 6158

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.39	96	90 - 110	2003-12-08

Standard (CCV-1) QC Batch: 6158

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.4	91	90 - 110	2003-12-08
Fluoride		mg/L	2.50	2.42	97	90 - 110	2003-12-08
Sulfate		mg/L	12.5	11.8	94	90 - 110	2003-12-08

Standard (ICV-1) QC Batch: 6160

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	24.4	98	90 - 110	2003-12-04
Dissolved Potassium		mg/L	25.0	26.1	104	90 - 110	2003-12-04
Dissolved Magnesium		mg/L	25.0	24.9	100	90 - 110	2003-12-04
Dissolved Sodium		mg/L	25.0	26.0	104	90 - 110	2003-12-04

Standard (CCV-1) QC Batch: 6160

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	26.9	108	90 - 110	2003-12-04
Dissolved Potassium		mg/L	25.0	25.3	101	90 - 110	2003-12-04
Dissolved Magnesium		mg/L	25.0	26.5	106	90 - 110	2003-12-04
Dissolved Sodium		mg/L	25.0	25.8	103	90 - 110	2003-12-04

Standard (CCV-2) QC Batch: 6160

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	26.9	108	90 - 110	2003-12-04
Dissolved Potassium		mg/L	25.0	25.3	101	90 - 110	2003-12-04
Dissolved Magnesium		mg/L	25.0	26.5	106	90 - 110	2003-12-04
Dissolved Sodium		mg/L	25.0	25.8	103	90 - 110	2003-12-04

Standard (ICV-1) QC Batch: 6206

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2003-12-09

Standard (ICV-1) QC Batch: 6206

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.3	90	90 - 110	2003-12-09
Fluoride		mg/L	2.50	2.50	100	90 - 110	2003-12-09
Sulfate		mg/L	12.5	11.7	94	90 - 110	2003-12-09

Standard (CCV-1) QC Batch: 6206

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.39	96	90 - 110	2003-12-09

Standard (CCV-1) QC Batch: 6206

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.3	90	90 - 110	2003-12-09
Fluoride		mg/L	2.50	2.45	98	90 - 110	2003-12-09
Sulfate		mg/L	12.5	11.6	93	90 - 110	2003-12-09

3120106

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: ~~915~~-687-0456
432 ~~915~~-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev TX
SITE MANAGER: Cindy Crain
PROJECT NO.: 00113
PROJECT NAME: Cooper-Jal
PAGE 1 OF
LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	BTEX	Cations	Anions	TDS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
11/25	0931	✓			MW-13	3	2	1	1	1	22302	
	0958	✓			MW-12						03	
	1025	✓			MW-3						04	
	1050	✓			MW-1						05	
	1122	✓			MW-2A						06	
	1151	✓			MW-2						07	
	1226	✓			MW-6						08	
	1254	✓			MW-5						09	
	1315	✓			MW-5A						10	
11/26	0715	✓			MW-4A						11	
	0744	✓			MW-4						12	
	0805	✓			RW-1						13	
	0855	✓			MW-10						14	
	0935	✓			RW-2						15	
	1005				MW-7						16	
	1037				MW-9						17	
	1057				MW-9A						18	
	1125				MW-11						19	

SAMPLED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1250
RELINQUISHED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1456
received / RELINQUISHED BY: (Signature) Helen Shelton DATE: 11/26/03 TIME: 1500
RECEIVED BY: (Signature) DATE: TIME:
relinquished / RECEIVED BY: (Signature) Helen Shelton DATE: 11/27/03 TIME: 8:00 am

SAMPLE SHIPPED BY: (Circle) FEDEX, HAND DELIVERED, (BUS), UPS, AIRBILL #: 15 c GLI 1661304852, OTHER: Bus

COMMENTS:
TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Vicki Henley DATE: 12.01.03 TIME: 10:25

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

SAMPLE CONDITION WHEN RECEIVED: Sediment in vials
LA CONTACT PERSON:
SAMPLE TYPE:

18 x 3 = 54 (HS)

MA

3120106

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev. TX
SITE MANAGER: Cindy [illegible]
PROJECT NO.: 0-0113
PROJECT NAME: Cooper-Jal
PAGE 1 OF 1
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	BTEX	Cations	Anions	TDS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
11/26	1155	✓			MW-8	3	1	1	1	1	223320	
11/26		✓			Dup	↓	↓	↓	↓	↓	21	
11/25		✓			Dup	↓	↓	↓	↓	↓	22	

SAMPLED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1250
RELINQUISHED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1500
~~[illegible]~~ received
RECEIVED BY: (Signature) DATE: TIME:

RELINQUISHED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1456
RECEIVED BY: (Signature) Helen Shelton DATE: 11/27/03 TIME: 8:00AM
SAMPLE SHIPPED BY: (Circle) FEDEX (BUS) UPS HAND DELIVERED AIRBILL #: [illegible] GLI 66134832 OTHER:

COMMENTS:
TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature] DATE: 12·1·03 TIME: 10:25

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

SAMPLE CONDITION WHEN RECEIVED: sediment in vials
LA CONTACT PERSON:
SAMPLE TYPE:

[illegible] 9 samples – HS

22302-22

3/20106

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc. Environmental Consultants
Fax: ~~915~~-687-0456
432 ~~915~~-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chevron

SITE MANAGER: Cindy Crosby

PROJECT NO.: 00113

PROJECT NAME: Cooper-SP

PAGE 1 OF

LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	BTEX	Cations	Anions	TDS	Fl, Cl, NO3, SO4	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
11/25	0931	✓			MW-13	3	2	1	1	1	1	22302	
	0958	✓			MW-12							03	
	1025	✓			MW-3							04	
	1050	✓			MW-1							05	
	1122	✓			MW-2A							06	
	1151	✓			MW-2							07	
	1226	✓			MW-6							08	
	1254	✓			MW-5							09	
	1315	✓			MW-5A							10	
11/26	0715	✓			MW-4A							11	
	0744	✓			MW-4							12	
	0805	✓			RW-1							13	
	0855	✓			MW-10							14	
	0935	✓			RW-2							15	
	1005				MW-7							16	
	1037				MW-9							17	
	1057				MW-9A							18	
	1125				MW-11							19	

SAMPLED BY: (Signature) [signature]

DATE: 11/26/03 TIME: 1250

RELINQUISHED BY: (Signature) [signature] Received

DATE: 11/26/03 TIME: 1500

RECEIVED BY: (Signature) [signature] Relinquished

DATE: 11/27/03 TIME: 8:00 AM

RELINQUISHED BY: (Signature) [signature]

DATE: 11/26/03 TIME: 1456

RECEIVED BY: (Signature)

DATE: TIME:

SAMPLE SHIPPED BY: (Circle) 15°C GI 1660 1304832

FEDEX (BUS) AIRBILL #:

HAND DELIVERED UPS OTHER: Bus

COMMENTS:

TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace Analysis

ADDRESS: Lubbock

CITY: STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Vicki Hussey 12.01.03 10:25

DATE: TIME:

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

SAMPLE CONDITION WHEN RECEIVED: Sediment in vials

LA CONTACT PERSON:

SAMPLE TYPE:

1843:54 (HS)

NA

12/10 Flp

3/20/06

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev. TX
SITE MANAGER: Cindy Crain
PROJECT NO.: 0-0113
PROJECT NAME: Cooper-Jal
PAGE 1 OF 2
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	BTEX	Cation	Anion	TDS	Fl, Cl, NO3, SO4					LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
11/26	1155	✓			mw-8	3	✓	✓	✓	✓	•					22320	
11/26		✓			Dup	↓	↓	↓	↓	↓	•					21	
11/25		✓			Dup	↓	↓	↓	↓	↓	•					22	

SAMPLED BY: (Signature) [signature] DATE: 11/21/03 TIME: 1250
RELINQUISHED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1500
RECEIVED BY: (Signature) DATE: TIME:

RELINQUISHED BY: (Signature) [signature] DATE: 11/26/03 TIME: 1456
RECEIVED BY: (Signature) Helen Shelton DATE: 11/27/03 TIME: 8:00AM
SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS
AIRBILL #: GLI 6613 04832
OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) [signature] 12·1·03 10:25
DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: sediment in vials

LA CONTACT PERSON:

SAMPLE TYPE:

wa 9 samples - HS