2010 ANNUAL GROUNDWATER MONITORING REPORT

J.R. PHILLIPS TANK BATTERY NO. 2
OGRID NO. 4323/CASE NO. 1R255
SE/4, NW/4, SECTION 6, T-20-S, R-37-E
LATITUDE: N 32° 36′ 22.3″ LONGITUDE: W 103° 17′ 41.5″
LEA COUNTY, NEW MEXICO

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LEA COUNTY, NEW MEXICO

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1.0 INTRODUCTION

This Annual Groundwater Monitoring Report presents groundwater monitoring data collected at the J.R. Phillips Tank Battery No. 2 (hereafter referred to as the "Site") by Conestoga-Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company (CEMC). Annual groundwater monitoring activities were performed on May 3-6, 2010.

The Site is located approximately three miles southwest of Monument, New Mexico and situated in Unit Letter F in the southeast quarter (SE/4) of the northwest quarter (NW/4) of Section 6, Township 20 South, Range 37 East, Lea County, New Mexico. The Site is a former emergency pit used for temporary containment of produced fluids associated with the tank battery. Land use in the vicinity of the Site is undeveloped rangeland vegetated with indigenous grass, livestock ranching and oil and gas production. A Site Location Map is presented as FIGURE 1.

Site assessment activities were initiated in 1999 when Environmental Plus, Inc. (EPI) of Eunice, New Mexico performed a subsurface assessment of the emergency produced water overflow pit located east of the tank battery and a small burn pit located south-southeast of the emergency pit. The investigation revealed the presence of hydrocarbon affected soil. Approximately 33,500 cubic yards of hydrocarbon-affected material were excavated at the Site between December 1999 and October 2000. The soil was transported to the Texaco Exploration and Production, Inc. (Texaco) centralized treatment facility located northwest of Jal, New Mexico. The emergency pit was excavated to approximately 25 to 30 feet below ground surface (bgs) and the burn pit was excavated to approximately 12 to 15 feet bgs. The remedial excavations were subsequently backfilled and closed during December 2000 and January 2001. Site assessment and remediation activities were presented in the *Comprehensive Report and Proposed Investigation Plan* (Larson & Associates, Inc. [LA], November 28, 2000).

In March 2000, EPI installed two monitor wells (MW-1 and MW-2) to evaluate background chloride concentrations in groundwater at the Site. In April 2001, LA supervised the installation of six monitor (MW-3 through MW-8) to assess groundwater quality upgradient, downgradient and crossgradient of the Site. Details of that investigation were submitted to the New Mexico Oil Conservation Division (NMOCD) in a *Groundwater Assessment Report* (LA, May 24, 2001). In that report, semi-annual groundwater monitoring was proposed for two years, with groundwater samples to be analyzed for major cations, anions and total dissolved solids (TDS).

The proposed activities were approved by the NMOCD in a correspondence dated December 27, 2001, with the condition that groundwater also be analyzed for benzene, toluene, ethylbenzene and xylene (BTEX). The NMOCD agreed to allow Texaco to monitor groundwater at the Site, with consideration relating to regional groundwater impacts from chloride that has affected groundwater at the Site, as well as upgradient, crossgradient and downgradient of the Site. An *Annual Groundwater Monitoring Report* (LA, May 10, 2004) presented the results of activities performed in 2003, which fulfilled the two-year monitoring schedule approved by the NMOCD. CEMC proposed a modification to the groundwater monitoring schedule from semi-annual to annual,

analyzing groundwater samples only for major cations, anions and TDS. The groundwater monitoring modifications were approved by the NMOCD in a correspondence dated October 1, 2004. An NMOCD correspondence and the approval letter is included in APPENDIX A. Annual groundwater monitoring results for activities performed in May 2004 and May 2005 were presented in the *Annual Groundwater Monitoring Report* (LA, August 15, 2005). CRA has performed annual groundwater monitoring and reporting activities since 2006.

2.0 REGULATORY FRAMEWORK

The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the New Mexico Water Quality Control Commission (NMWQCC) regulations. In addition, the NMWQCC regulations present the Human Health Standards for Groundwater. The constituent of concern in affected groundwater at the Site is chloride. Groundwater analytical results for chloride and four additional analytes are compared to the NMWQCC standards as shown in the following table:

Analyte	NMWQCC Standard for Groundwater (mg/L)
Fluoride[1]	1.6
Nitrate (NO_3 as N)[1]	10
Chloride[2]	250
Sulfate (SO_4)[2]	600
Total Dissolved Solids (TDS)[2]	1,000

Notes:
1) [1]NMWQCC Human Health Standards per NMAC 20.6.2.3103A
2) [2]NMWQCC Other Standards for Domestic Water Supply per NMAC 20.6.2.3103B

3.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater at the Site is monitored annually with a network of eight monitor wells and one water well (FIGURE 2). CRA performed groundwater sampling activities on May 3-6, 2010.

Prior to purging the wells, static fluid levels were measured with an electric interface probe to the nearest hundredth of a foot. After recording fluid levels, the wells were purged of a minimum of three casing volumes of groundwater. Geochemical field parameters including pH, temperature and conductivity were collected during the purging/sampling process. All non-disposable groundwater sampling equipment was decontaminated with a soap (Liquinox®) and potable water wash, a potable water rinse and a final deionized water rinse to minimize potential cross-contamination between each monitor well. Subsequent to the purging process, groundwater samples were collected using clean, disposable PVC bailers. Laboratory supplied sample containers were then filled directly from the disposable PVC bailers.

Groundwater samples were placed on ice in insulated coolers and chilled to a temperature of approximately 4°C (40°F). The coolers were sealed for shipment and proper chain-of-custody documentation accompanied the samples to the laboratory (ALS Laboratory Group (ALS) located in Houston, Texas) for analysis of major cations, anions and TDS by Environmental Protection Agency (EPA) Methods 6020, 2320B, 300.0 and 2540C. The fluids recovered and generated during the sampling event were containerized in sealed, 55-gallon drums located onsite and subsequently managed at an NMOCD-permitted and Chevron-approved salt water disposal (SWD) facility operated by Nabors Well Services LTD (Nabors).

3.1 POTENTIOMETRIC SURFACE AND GRADIENT

Groundwater elevation data are presented in TABLE I. A groundwater gradient map for May 2010 is presented as FIGURE 3. Depth to groundwater ranged from 32.01 feet (WW-1) to 37.41 feet (MW-4) below top of casing on May 3, 2010. Groundwater flow at the Site is to the southeast at a gradient of approximately 0.006 feet/foot.

3.2 ANALYTICAL RESULTS

The 2010 analytical results generally fall within historical ranges and are summarized in TABLE II. Isopleth maps of the chloride, sulfate and TDS concentrations for the May 2010 groundwater monitoring event are presented as FIGURES 4, 5 and 6.

All nine wells sampled exceeded the NMWQCC groundwater standards for chloride and TDS for this event. All wells excluding MW-8 exceed the NMWQCC groundwater standards for sulfate. In addition, three monitor wells (MW-4, MW-6 & MW-8) exceeded the NMWQCC groundwater standard for fluoride. Copies of the certified analytical reports and chain-of-custody documentation are attached in APPENDIX B.

4.0 PLANNED ACTIVITIES

Annual groundwater monitoring will continue at the Site in 2011, with submission of an annual report to the NMOCD detailing the results of activities.

5.0 SUMMARY

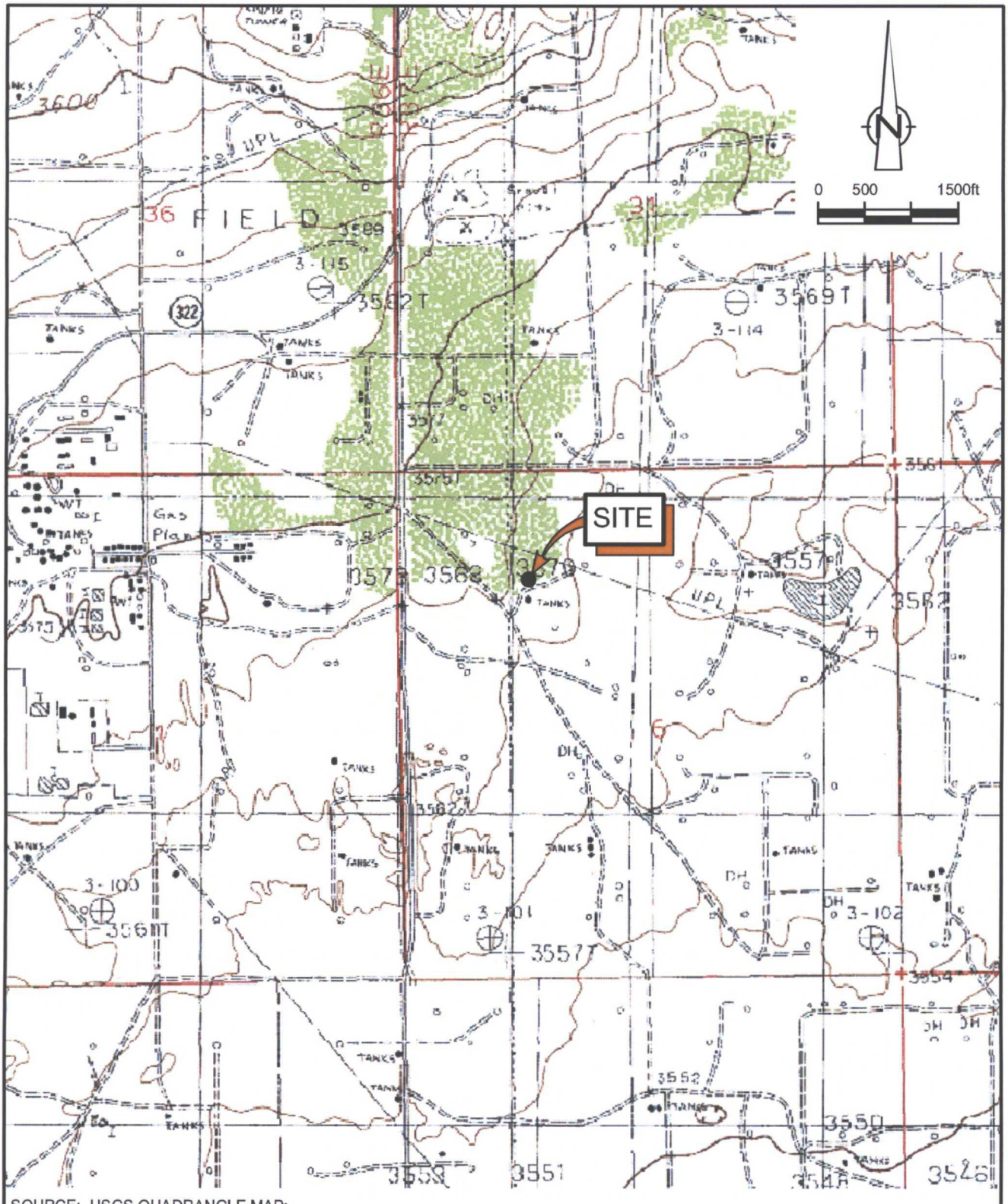
Based on historical data review and groundwater monitoring activities performed at the Site, CRA presents the following summary:

- Groundwater at the Site is monitored annually with a network of eight monitor wells and one water well;
- Depth to groundwater ranged from 32.01 feet to 37.41 feet below top of casing on May 3, 2010. Groundwater flow at the Site is to the southeast at a gradient of approximately 0.006 feet/foot;
- The 2010 analytical results generally fall within historical ranges. All nine wells sampled exceeded the NMWQCC groundwater standards for chloride and TDS. All wells excluding MW-8 exceeded the NMWQCC groundwater standards for sulfate. In addition, three monitor wells (MW-4, MW-6 & MW-8) exceeded the NMWQCC groundwater standard for fluoride. Nitrate concentrations were below NMWQCC standards during the 2010 sampling event for all wells;
- The 2011 groundwater monitoring event is scheduled for May 2011.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Todd Wells
Project Manager

Thomas C. Larson
Operations Manager



SOURCE: USGS QUADRANGLE MAP;
MONUMENT SOUTH, NEW MEXICO (1985)

32° 36' 22.3" N, 103° 17' 41.5" W

figure 1

SITE LOCATION MAP
J. R. PHILLIPS NO. 2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039126-10(006)GN-MD001 MAR 29/2011

NOTE:
MAP BASED ON APRIL 15, 2008 SURVEY PERFORMED BY WEST COMPANY OF MIDLAND, INC.

LEGEND

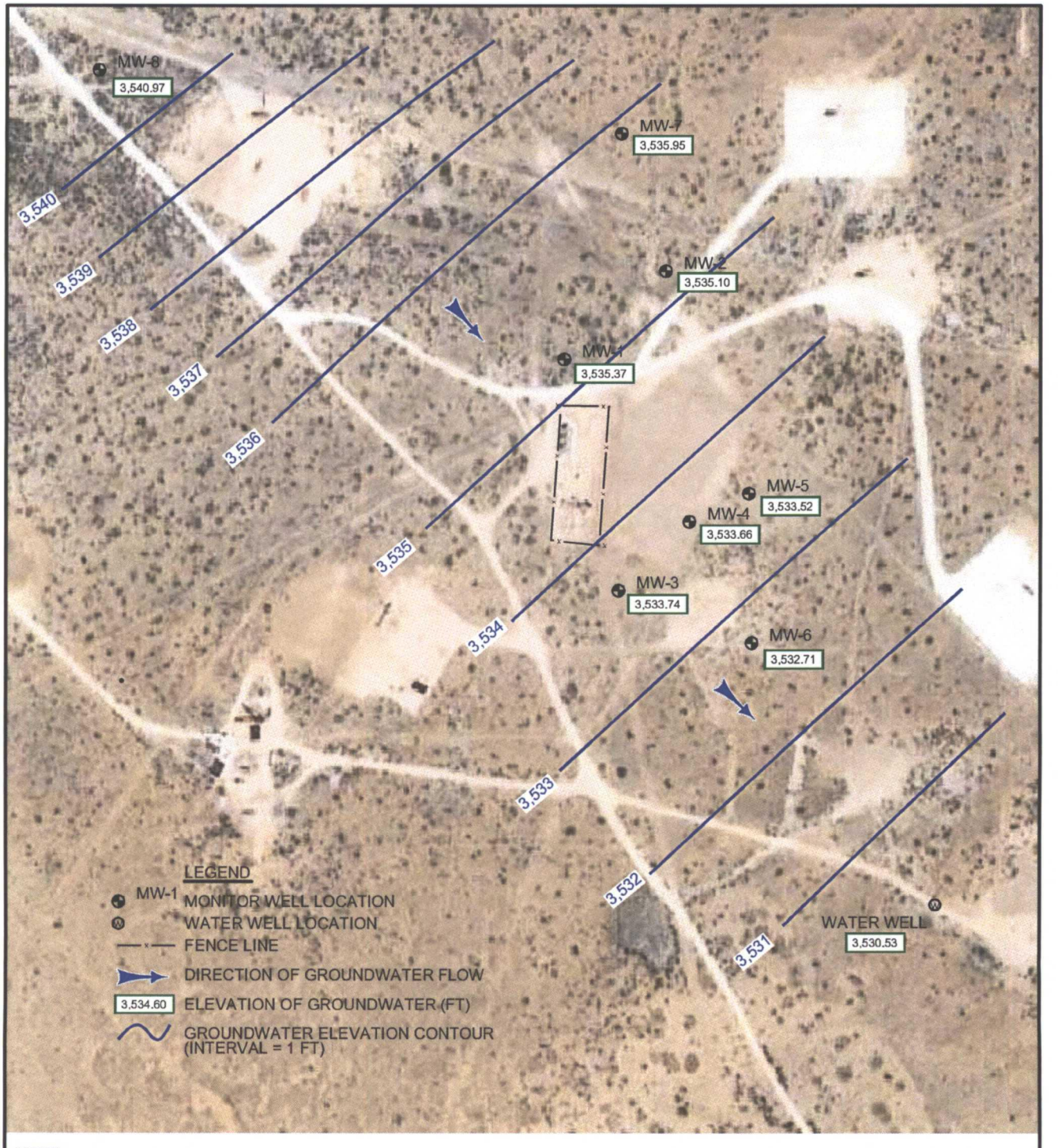
- MW-1 MONITOR WELL LOCATION
- WATER WELL LOCATION
- FENCE LINE

0 100 300ft

figure 2

SITE DETAILS MAP
J. R. PHILLIPS NO. 2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039126-10(006)GN-MD002 MAR 28/2010



NOTE:
GROUNDWATER ELEVATIONS COLLECTED ON MAY 3, 2010.

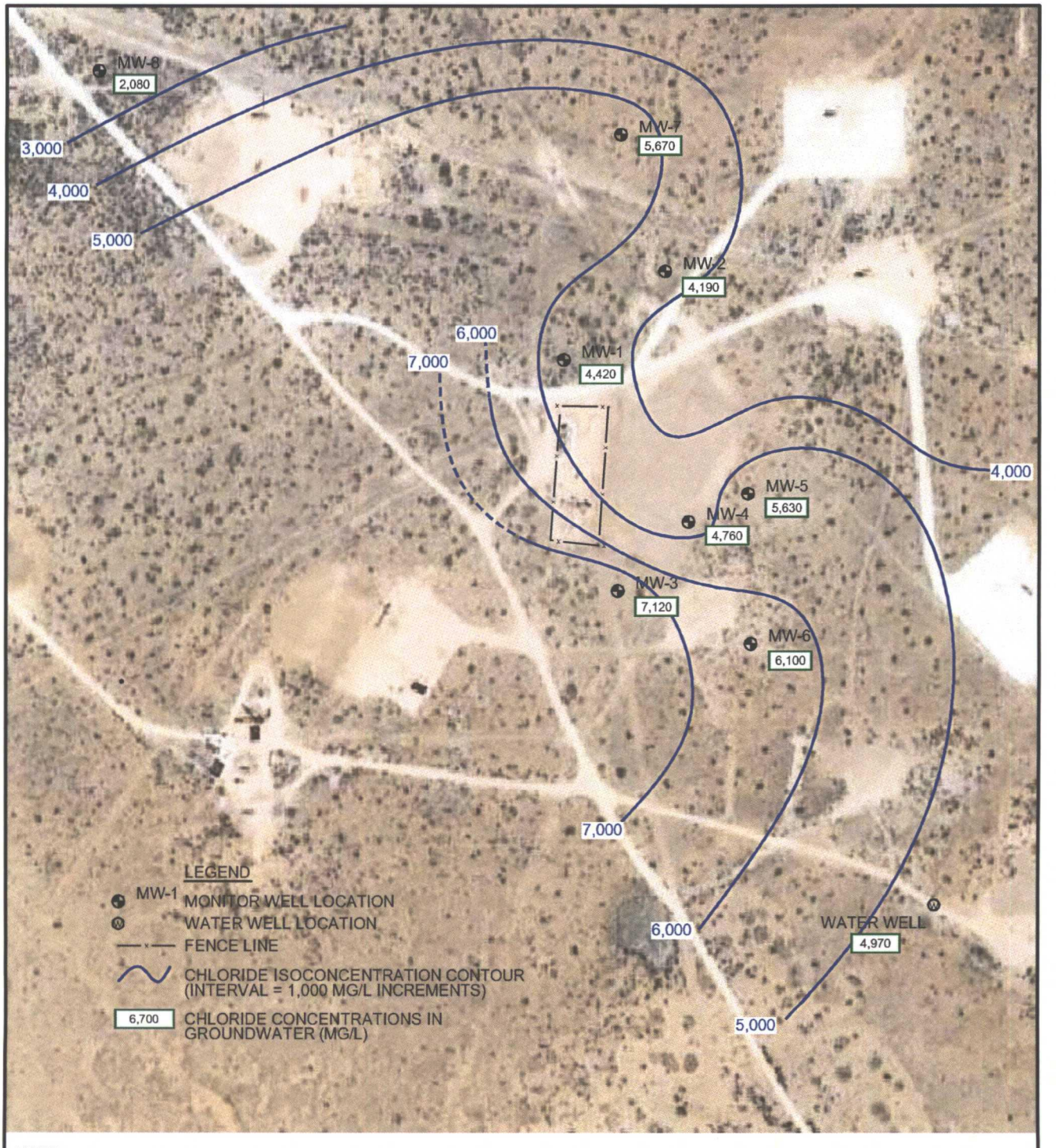
N

0 100 300ft

figure 3

GROUNDWATER GRADIENT MAP - MAY 2010
J. R. PHILLIPS NO. 2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039126-10(006)GN-MD002 MAR 28/2011



NOTE:
GROUNDWATER SAMPLES COLLECTED ON MAY 5-6, 2010.

0 100 300ft

figure 4

CHLORIDE ISOCONCENTRATION MAP - MAY 2010
J. R. PHILLIPS NO. 2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039126-10(006)GN-MD002 APR 01/2011

NOTE:
GROUNDWATER SAMPLES COLLECTED ON MAY 5-6, 2010.

0 100 300ft

figure 5

SULFATE ISOCONCENTRATION MAP - MAY 2010
J. R. PHILLIPS NO. 2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039126-10(006)GN-MD002 APR 01/2011

NOTE:
GROUNDWATER SAMPLES COLLECTED ON MAY 5-6, 2010.

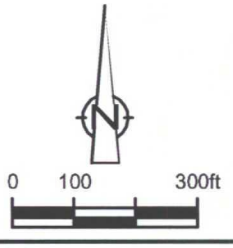


figure 6

TDS ISOCONCENTRATION MAP - MAY 2010
J. R. PHILLIPS NO. 2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039126-10(006)GN-MD002 APR 01/2011

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-1	5/2/01	39.33	2	3532.28	45.10	27-42
3571.61	05/21/02	40.37	---	3531.24	---	---
	11/12/02	40.92	---	3530.69	---	---
	05/15/03	41.11	---	3530.50	---	---
	09/03/03	41.54	---	3530.07	---	---
	11/20/03	41.65	---	3529.96	---	---
	05/03/04	41.40	---	3530.21	---	---
	05/10/05	38.86	---	3532.75	---	---
	05/15/06	34.70	---	3536.91	---	---
	05/30/07	34.12	---	3537.49	---	---
	05/12/08	35.28	---	3536.33	---	---
	05/27/09	36.13	---	3535.48	45.14	---
	05/03/10	36.24	---	3535.37	45.15	---
MW-2	5/2/01	39.15	2	3531.97	45.12	27-42
3571.12	05/21/02	40.14	---	3530.98	---	---
	11/12/02	40.69	---	3530.43	---	---
	05/15/03	40.89	---	3530.23	---	---
	09/03/03	41.33	---	3529.79	---	---
	11/20/03	41.42	---	3529.70	---	---
	05/03/04	41.11	---	3530.01	---	---
	05/10/05	35.78	---	3535.34	---	---
	05/15/06	34.63	---	3536.49	---	---
	05/30/07	33.96	---	3537.16	---	---
	05/12/08	35.08	---	3536.04	45.25	---
	05/27/09	35.96	---	3535.16	45.25	---
	05/03/10	36.02	---	3535.10	45.23	---
MW-3	5/2/01	39.30	2	3531.40	56.50	34-54
3570.70	05/21/02	40.57	---	3530.13	---	---
	11/12/02	41.09	---	3529.61	---	---
	05/15/03	41.26	---	3529.44	---	---
	09/03/03	41.61	---	3529.09	---	---
	11/20/03	41.73	---	3528.97	---	---
	05/03/04	41.60	---	3529.10	---	---
	05/10/05	36.89	---	3533.81	---	---
	05/15/06	35.70	---	3535.00	---	---
	05/30/07	35.11	---	3535.59	---	---
	05/12/08	36.03	---	3534.67	56.60	---
	05/27/09	36.82	---	3533.88	56.60	---
	05/03/10	36.96	---	3533.74	56.60	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-4	5/2/01	40.24	2	3530.83	57.12	34-54
3571.07	05/21/02	41.09	---	3529.98	---	---
	11/12/02	41.59	---	3529.48	---	---
	05/15/03	41.77	---	3529.30	---	---
	09/03/03	42.19	---	3528.88	---	---
	11/20/03	42.27	---	3528.80	---	---
	05/03/04	42.03	---	3529.04	---	---
	05/10/05	37.15	---	3533.92	---	---
	05/15/06	36.15	---	3534.92	---	---
	05/30/07	35.50	---	3535.57	---	---
	05/12/08	36.46	---	3534.61	56.90	---
	05/27/09	37.30	---	3533.77	57.90	---
	05/03/10	37.41	---	3533.66	56.90	---
MW-5	5/2/01	38.37	2	3530.94	57.75	34-54
3569.31	05/21/02	39.53	---	3529.78	---	---
	11/12/02	40.02	---	3529.29	---	---
	05/15/03	40.21	---	3529.10	---	---
	09/03/03	42.21	---	3527.10	---	---
	11/20/03	40.71	---	3528.60	---	---
	05/03/04	40.39	---	3528.92	---	---
	05/10/05	35.48	---	3533.83	---	---
	05/15/06	34.65	---	3534.66	---	---
	05/30/07	33.94	---	3535.37	---	---
	05/12/08	34.93	---	3534.38	57.90	---
	05/27/09	35.76	---	3533.55	58.90	---
	05/03/10	35.79	---	3533.52	57.88	---
MW-6	5/2/01	39.40	2	3530.13	57.30	34-54
3569.53	05/21/02	40.22	---	3529.31	---	---
	11/12/02	40.72	---	3528.81	---	---
	05/15/03	40.88	---	3528.65	---	---
	09/03/03	41.92	---	3527.61	---	---
	11/20/03	41.33	---	3528.20	---	---
	05/03/04	41.12	---	3528.41	---	---
	05/10/05	36.56	---	3532.97	---	---
	05/15/06	35.65	---	3533.88	---	---
	05/30/07	34.93	---	3534.60	---	---
	05/12/08	35.79	---	3533.74	57.90	---
	05/27/09	36.56	---	3532.97	57.30	---
	05/03/10	36.82	---	3532.71	57.27	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-7	5/2/01	39.76	2	3532.70	57.85	36-56
3572.46	05/21/02	40.85	---	3531.61	---	---
	11/12/02	41.47	---	3530.99	---	---
	05/15/03	41.65	---	3530.81	---	---
	09/03/03	42.13	---	3530.33	---	---
	11/20/03	42.25	---	3530.21	---	---
	05/03/04	41.92	---	3530.54	---	---
	05/10/05	36.43	---	3536.03	---	---
	05/15/06	35.08	---	3537.38	---	---
	05/30/07	34.37	---	3538.09	---	---
	05/12/08	35.56	---	3536.90	57.85	---
	05/27/09	36.48	---	3535.98	58.85	---
	05/03/10	36.51	---	3535.95	57.83	---
MW-8	5/2/01	40.35	2	3537.31	65.20	47-62
3577.66	05/21/02	49.27	---	3528.39	---	---
	11/12/02	43.15	---	3534.51	---	---
	05/15/03	43.30	---	3534.36	---	---
	09/03/03	43.52	---	3534.14	---	---
	11/20/03	43.87	---	3533.79	---	---
	05/03/04	44.07	---	3533.59	---	---
	05/10/05	32.30	---	3545.36	---	---
	05/15/06	33.45	---	3544.21	---	---
	05/30/07	33.17	---	3544.49	---	---
	05/12/08	35.66	---	3542.00	65.35	---
	05/27/09	36.66	---	3541.00	66.35	---
	05/03/10	36.69	---	3540.97	65.37	---
WW-1	5/2/01	33.93	5	3528.61	69.35	Unknown
3562.54	05/21/02	34.60	---	3527.94	---	---
	11/12/02	35.03	---	3527.51	---	---
	09/03/03	35.51	---	3527.03	---	---
	11/20/03	35.56	---	3526.98	---	---
	05/03/04	35.49	---	3527.05	---	---
	05/10/05	30.58	---	3531.96	---	---
	05/15/06	30.05	---	3532.49	---	---
	05/30/07	29.47	---	3533.07	---	---
	05/12/08	30.50	---	3532.04	69.65	---
	05/27/09	31.19	---	3531.35	69.65	---
	05/03/10	32.01	---	3530.53	69.69	---

Notes:
1. TOC - Top of Casing.
2. bgs - below ground surface.

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - (NO_3 as N)[1]	Sulfate (SO_4)[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-1	4/10/01	0.00	556	556	7,300	--	--	2,061	445	175	44.00	5,058	15,816
	5/3/01	<2.00	500	500	6,913	--	--	2,020	323.4	172.5	52.11	3,756	14,501
	5/23/02	<1.00	494	494	6,060	--	--	1,850	361	154	66.40	3,750	13,300
	11/12/02	<0.10	456	456	6,030	--	--	1,400	235	143	67.40	3,060	12,800
	5/15/03	<1.00	430	430	5,150	--	--	1,710	312	121	42.80	3,970	5,990
	9/9/03	---	---	---	5,320	--	--	---	---	---	---	---	---
	11/21/03	<1.00	460	460	4,910	--	--	1,730	302	121	54.6	3,360	11,540
	5/4/04	<1.00	438	438	5,280	<4.00	<4.00	1,620	272	115	49.10	3,030	11,260
	5/10/05	<1.00	412	412	7,000	<2.00	<2.00	2,360	453	211	94.50	3,780	16,250
	5/16/06	<10	410	410	6,700	1.3	<0.40	1,700	403.000 D2	182.000 D2	38.400 D2	4,080.000 D1	16,600
	5/31/07	<10	378	378	7,000	<50	<0.100	1,900	461	200	<50	4,150	15,600
	5/13/08	1.53	534	534	6,670	2.13	0.95	1,960	427	192	53.60	3,520	14,700
	5/28/09	<5.0	690	690	5,500	2.0	<0.50	2,000	300	140	43	3,300	12,000
	5/5/10	<5.00	482	482	4,420	1.54	<0.100	1,640	302	113	27.0	2,980	10,300
MW-2	4/10/01	0.00	566	566	8,704	--	--	2,611	569	296	31.00	5,871	19,312
	5/3/01	<2.00	516	516	7,799	--	--	2,670	412.4	221.7	30.31	4,424	16,857
	5/22/02	<1.00	530	530	7,320	--	--	2,150	471	204	42.20	4,200	15,700
	11/12/02	<0.10	482	482	6,740	--	--	1,780	352	187	48.70	3,640	14,300
	5/15/03	<1.00	498	498	5,850	--	--	1,990	312	150	31.30	4,670	14,000
	9/9/03	---	---	---	6,470	--	--	---	---	---	---	---	---
	11/21/03	<1.00	510	510	5,790	--	--	2,100	378	158	52.1	3,770	14,080
	5/4/04	<1.00	530	530	6,040	<4.00	<4.00	1,950	326	136	43.80	3,300	12,520
	5/10/05	<1.00	502	502	8,080	5.57	<2.00	2,090	385	171	52.90	4,310	17,050
	5/16/06	<10	890	890	6,300	2.1	<0.40	1,600	375.000 D2	168.000 D2	9.330 D2	4,330.000 D1	14,200
	5/31/07	<10	1370	1370	6,700	<50	<0.100	1,700	417	183	<50	4,000	14,900
	5/13/08	1.53	736	736	6,440	6.93	0.95	1,690	410	184	29.10	3,530	14,000
	5/28/09	<5.0	760	760	6,100	2.4	<0.50	1,900	340	160	22	3,700	13,000
	5/6/10	<5.00	422	422	4,190	1.56	<0.100	1,370	385	135	19.7	3,100	8,680
MW-3	5/3/01	<2.00	458	458	11,078	---	---	3,525	984	431.9	38.89	6,114	24,135
	5/23/02	<1.00	512	512	10,800	---	---	3,920	999	350	56.50	6,210	24,200
	11/13/02	<0.10	456	456	11,400	---	---	3,670	863	371	59.30	5,680	23,600
	5/15/03	<1.00	462	462	10,700	---	---	4,220	921	315	34.10	5,870	24,200
	9/9/03	---	---	---	10,300	---	---	---	---	---	---	---	---
	11/21/03	<1.00	464	464	10,500	---	---	4,480	972	333	47.50	7,540	23,100
	5/4/04	<1.00	478	478	11,400	<8.00	<8.00	4,750	808	291	54.10	5,290	22,500
	5/10/05	<1.00	472	472	11,900	<2.00	<2.00	4,190	965	356	86.70	7,320	26,750
	5/16/06	<10	550	550	8,600	0.76	<0.40	3,100	642.000 D2	243.000 D2	24.100 D2	6,040.000 D1	23,200

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - (NO_3 as N)[1]	Sulfate (SO_4)[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-3	5/31/07	<10	520	520	7,700	<50	<0.100	2,900	591	213	<50	4,760	14,100
(Cont)	5/13/08	1.53	491	491	7,500	7.19	0.95	2,590	578	202	25.50	4,440	17,200
	5/28/09	<5.0	510	510	8,500	1.6	<0.50	2,600	460	190	23	4,700	17,000
	5/5/10	<5.00	462	462	7,120	1.32	<0.100	1,980	602	198	16.1	4,920	15,300
MW-4	5/3/01	<2.00	618	618	9,572	---	---	2,755	467.7	299.8	49.25	5,435	20,118
	5/22/02	<1.00	814	814	8,170	---	---	1,940	389	220	45.30	5,100	18,200
	11/13/02	<0.10	1020	1020	7,890	---	---	1,020	47.1	202	21.60	3,980	14,800
	5/15/03	<1.00	1050	1050	7,140	---	---	1,210	185	179	14.80	5,250	15,200
	9/9/03	---	---	---	7,800	---	---	---	---	---	---	---	---
	11/21/03	<1.00	770	770	7,500	---	---	2,720	334	198	39.70	4,760	17,350
	5/4/04	<1.00	900	900	8,740	<6.00	<6.00	3,170	240	191	25.80	3,660	15,800
	5/10/05	<1.00	708	708	7,750	2.73	<2.00	2,010	330	186	50.40	4,400	26,700
	5/16/06	<10	750	750	6,400	0.81	<0.40	1,900	253.000 D2	146.000 D2	<5.000 D2	4,120.000 D1	11,100
	5/31/07	<10	624	624	5,500	<50	<0.100	1,500	272	126	<50	3,550	13,700
	5/13/08	1.53	627	627	5,550	6.64	0.95	1,430	280	129	31.60	3,270	12,400
	5/28/09	<5.0	560	560	6,500	2.2	<0.50	1,600	280	140	36	3,800	13,000
	5/5/10	<5.00	884	884	4,760	2.69	<0.100	1,040	160	103	6.69	3,590	11,300
MW-5	5/3/01	<2.00	416	416	8,685	---	---	3,045	430.9	237.1	44.36	4,651	18,846
	5/23/02	<1.00	496	496	6,970	---	---	2,510	394	200	44.00	4,680	16,900
	11/13/02	<0.10	640	640	7,270	---	---	1,790	266	172	43.80	3,880	14,900
	5/15/03	<1.00	562	562	6,800	---	---	2,320	383	167	30.90	5,300	16,000
	9/9/03	---	---	---	7,090	---	---	---	---	---	---	---	---
	11/21/03	<1.00	522	522	7,010	---	---	3,170	434	178	54.90	4,300	16,850
	5/4/04	<1.00	534	534	6,630	<4.00	<4.00	2,310	365	152	47.80	3,850	16,800
	5/10/05	<1.00	536	536	23,300	<2.00	<2.00	2,380	362	151	68.30	4,400	17,400
	5/16/06	<10	530	530	5,800	1.4	<0.40	1,600	335.000 D2	143.000 D2	23.900 D2	4,110.000 D1	14,100
	5/31/07	<10	426	426	6,400	<50	<0.100	1,500	372	154	<50	3,910	14,400
	5/13/08	1.53	410	410	6,720	6.87	0.95	1,590	413	180	32.20	3,580	14,700
	5/28/09	<5.0	670	670	6,900	1.8	<0.50	1,900	370	170	30	4,000	14,000
	5/5/10	<5.00	492	492	5,630	1.4	<0.100	1,760	497	181	23.5	4,140	12,600
MW-6	5/3/01	<2.00	460	460	11,876	--	--	4,380	1,004	429.9	52.27	6,281	25,288
	5/23/02	<1.00	474	474	11,000	--	--	4,300	1,130	483	53.00	6,060	25,500
	11/13/02	<0.10	416	416	10,800	--	--	3,660	936	486	57.60	5,470	23,400
	5/15/03	<1.00	470	470	10,700	--	--	4,310	1,000	388	34.10	5,760	23,800
	9/9/03	---	---	---	10,300	--	--	---	---	---	---	---	---
	11/20/03	<1.00	480	480	10,000	--	--	4,410	904	399	42.50	5,610	23,500

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - (NO_3 as N)[1]	Sulfate (SO_4)[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-6	5/4/04	<1.00	466	466	11,400	<8.00	<8.00	4,310	869	350	49.00	5,590	23,850
(Cont)	5/10/05	<1.00	476	476	11,000	3.48	<2.00	4,050	801	331	52.20	6,090	24,200
	5/16/06	<10	750	750	8,700	1.0	<0.40	3,200	620.000 D2	268.000 D2	24.200 D2	5,980.000 D1	18,900
	5/31/07	<10	776	776	7,800	<50	<0.100	3,100	600	226	<50	5,200	18,700
	5/13/08	1.53	672	672	7,230	7.3	0.95	2,870	425	179	24.70	4,470	16,900
	5/28/09	<50	1700	1700	7,700	1.8	<0.50	2,900	350	160	21	4,700	17,000
	5/5/10	<5.00	583	583	6,100	1.96	<0.100	2,080	415	154	14.3	5,070	15,000
MW-7	5/2/01	<2.00	436	436	8,154	--	--	2,430	599.5	289.8	34.57	4,578	18,578
	5/22/02	<1.00	440	440	7,420	--	--	2,280	630	264	48.50	4,390	16,900
	11/12/02	<0.10	412	412	7,530	--	--	1,800	512	244	55.00	3,950	15,700
	5/15/03	<1.00	438	438	7,180	--	--	2,350	583	220	33.30	4,970	16,800
	9/9/03	---	---	---	6,910	--	--	---	---	---	---	---	---
	11/20/03	<1.00	434	434	6,360	--	--	2,110	532	204	52.70	3,770	14,500
	5/4/04	<1.00	418	418	6,610	<4.00	<4.00	1,930	527	188	47.10	3,460	16,600
	5/10/05	<1.00	450	450	8,210	2.14	<2.00	1,810	506	188	62.80	3,860	14,600
	5/16/06	<10	480	480	6,500	1.1	<0.40	1,700	530.000 D2	200.000 D2	15.600 D2	4,020.000 D1	18,100
	5/31/07	<10	397	397	6,800	<50	<0.100	1,800	496	187	<50	3,730	14,900
	5/13/08	1.53	417	417	16,070	6.80	0.95	1,920	484	194	31.70	3,430	14,200
	5/28/09	<5.0	450	450	7,200	1.7	<0.50	2,200	410	180	50	3,900	14,000
	5/5/10	<2.0	422	422	5,670	1.39	<0.100	1,840	518	172	19.6	4,090	11,300
MW-8	5/2/01	<2.00	426	426	17,445	--	--	1,213	766.7	295.7	52.68	2,999	16,325
	5/23/02	<1.00	430	430	6,680	--	--	1,260	701	237	75.90	3,420	13,300
	11/12/02	<0.10	444	444	7,270	--	--	1,220	591	254	88.00	3,150	14,000
	5/15/03	<1.00	468	468	7,300	--	--	1,690	777	265	55.10	4,580	15,700
	9/9/03	--	--	--	7,270	--	--	--	--	--	--	--	--
	11/20/03	<1.00	438	438	8,190	--	--	2,570	881	280	64.5	3,560	14,040
	5/4/04	<1.00	380	380	7,960	<6.00	<6.00	1,370	912	321	60.10	2,970	12,750
	5/10/05	<1.00	446	446	2,590	4.12	<1.00	936	228	84.40	46.30	1,740	5,635
	5/16/06	<10	480	480	2,600	3.1	<0.40	960	327.000 D2	117.000 D2	21.000 D2	1,680.000 D1	6,620
	5/31/07	<10	378	378	3,200	<50	<0.100	960	394	133	<50	1,830	8,080
	5/13/08	1.53	472	472	3,160	2.94	0.95	762	354	132	28.90	1,770	7,280
	5/28/09	<5.0	360	360	6,500	2.5	<0.50	1,000	950	280	38	2,600	14,000
	5/5/10	<2.0	583	583	2,080	3.1	<0.100	599	218	71.8	17.4	1,460	5,010

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
J.R. PHILLIPS TANK BATTERY #2
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - (NO_3 as N)[1]	Sulfate (SO_4)[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
WW-1	--	--	--	--	13,152	--	--	--	--	--	--	--	--
	5/3/01	<2.00	<2.00	<2.00	12,053	--	--	629	1,419	387.3	38.95	1,486	22,571
	11/12/02	<0.10	<2.0	<2.0	<5.0	--	--	998	1,120	361	38.30	2,260	15,800
	5/15/03	<1.00	<4.00	<4.00	11,800	--	--	1,780	1,490	403	28.90	3,360	21,400
	9/9/03	--	--	--	<5.00	--	--	--	--	--	--	--	--
	11/21/03	<1.00	<4.00	<4.00	10,000	--	--	2,180	1,650	461	52.7	3,630	18,900
	5/4/04	<1.00	<4.00	<4.00	12,500	<8.00	<8.00	1,880	1,540	450	47.00	3,470	23,400
	5/10/05	<1.00	<4.00	<4.00	121	<1.00	<1.00	63.40	39.8	12.2	3.05	10.20	336
	5/16/06	<10	67	67	1,300	<0.50	1.9	110	155.000 D2	34.500 D2	<5.000 D2	186.000 D1	4,180
	5/31/07	<10	<10	<10	2,400	<25	<0.100	300	645	167	<50	1,830	5,340
	5/13/08	1.53	1.53	1.53	10,200	1.00	1.90	1,770	1,400	364	8.121	3,320	22,700
	5/28/09	<2.5	37	37	9,200	<1.0	<0.50	2,100	920	280	21	3,400	18,000
	5/5/10	<2.0	<2.0	<2.0	4,970	<0.100	<0.100	767	304	158	11.8	2,470	10,200

Notes:

1. Shaded cells indicate New Mexico Water Quality Control Commission (NMWQCC) exceedance.
2. Results shown in mg/L.
3. Analytical data prior to 2006 was provided to CRA by Larson & Associates.
4. D1 - The analysis was performed at a dilution due to the high analyte concentration.
5. D2 - The analysis was performed at a dilution due to the presence of matrix interferences.
6. [1]Human Health Standard for Groundwater
7. [2]Other Standard for Domestic Water Supply.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

December 27, 2001

CERTIFIED MAIL
RETURN RECEIPT NO. 7000-1670-0012-5357-8116

Mr. Rodney Bailey
Texaco Exploration & Production, Inc.
500 N. Loraine
Midland, Texas 79701

RE: CASE #1R0255
J.R. PHILLIPS #2 TANK BATTERY SITE
MONUMENT, NEW MEXICO

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed Texaco Exploration & Production, Inc.'s (Texaco) May 24, 2001 "GROUNDWATER ASSESSMENT REPORT, TEXACO EXPLORATION AND PRODUCTION INC., J.R. PHILLIPS TANK BATTERY #2, SE/4, NW/4, SECTION 6, TOWNSHIP 20 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO, MAY 24, 2001" which was submitted on behalf of Texaco by their consultant Larson & Associates, Inc. This document contains the results of Texaco's investigation of the extent of ground water contamination related to a former emergency pit at the J.R. Phillips #2 Tank Battery south of Monument, New Mexico. The document also contains a proposal for further ground water monitoring at the site.

The above referenced monitoring proposal is approved with the following conditions:

1. Ground water from the monitoring wells shall also be analyzed for concentrations of benzene, toluene, ethylbenzene and xylene (BTEX).

2. Texaco shall notify the OCD at least 48 hours in advance of scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Please be advised that OCD approval does not relieve Texaco of responsibility if the work plan fails to adequately monitor contamination related to Texaco's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve Texaco of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Mark Larson, Larson & Associates, Inc.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

October 1, 2004

Mr. Rodney Bailey
ChevronTexaco
15 Smith Road
Midland, Texas 79705

RE: CASE #1R0255
J.R. PHILLIPS #2 TANK BATTERY SITE
MONUMENT, NEW MEXICO

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed ChevronTexaco's May 10, 2004 "ANNUAL GROUNDWATER MONITORING REPORT, CHEVRONTEXACO EXPLORATION AND PRODUCTION COMPANY, J.R.PHILLIPS TANK BATTERY NO. 2, NW/4 SE/4, SECTION 30, TOWNSHIP 18 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO" which was submitted on behalf of ChevronTexaco by their consultant Larson & Associates, Inc. This document contains the results of ChevronTexaco's 2003 remediation and monitoring of contaminated ground water at the J.R. Phillips #2 Tank Battery south of Monument, New Mexico . The document also proposes to change the sampling schedule of ground water monitoring wells from semi-annual to annual sampling.

The above-referenced monitoring proposal is approved. Please be advised that OCD approval does not limit ChevronTexaco to the proposed work plan should the plan fail to adequately remediate or monitor contamination related to ChevronTexaco's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve ChevronTexaco of responsibility for compliance with any other federal, state or local laws and regulations. If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Cindy K. Crain, Larson & Associates, Inc.

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

20-May-2010

Patricia Lynch
Conestoga-Rovers & Associates
6320 Rothway, Suite 100
Houston, TX 77040

Tel: (713) 734-3090
Fax: (713) 734-3391

Re: JR Phillips - 039126 Work Order: **1005124**

Dear Patricia,

ALS Laboratory Group received 9 samples on 06-May-2010 09:25 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 25.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Shannon L. Tyrell

Electronically approved by: Glenda H. Ramos

Shannon L. Tyrell
Project Manager

Certificate No: T104704231-09A-TX

ALS Laboratory Group

Date: 20-May-10

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Work Order: **1005124**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1005124-01	MW-1 050510	Water		5/5/2010 12:20	5/6/2010 09:25	☐
1005124-02	MW-3 050510	Water		5/5/2010 12:40	5/6/2010 09:25	☐
1005124-03	MW-4 050510	Water		5/5/2010 13:30	5/6/2010 09:25	☐
1005124-04	MW-5 050510	Water		5/5/2010 13:45	5/6/2010 09:25	☐
1005124-05	MW-6 050510	Water		5/5/2010 13:00	5/6/2010 09:25	☐
1005124-06	MW-7 050510	Water		5/5/2010 10:50	5/6/2010 09:25	☐
1005124-07	MW-8 050510	Water		5/5/2010 14:00	5/6/2010 09:25	☐
1005124-08	WW 050510	Water		5/5/2010 13:15	5/6/2010 09:25	☐
1005124-09	Dup 050510	Water		5/5/2010	5/6/2010 09:25	☐

ALS Laboratory Group

Date: 20-May-10

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Work Order: 1005124

Case Narrative

Batch R90573, Anions, Sample MW-1 050510: MS/MSD recoveries were outside control limits for Chloride, Nitrate, & Sulfate due to matrix interference. The results for Chloride and Sulfate are "E" and "O" qualified.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-1 050510
Collection Date: 5/5/2010 12:20 PM

Work Order: 1005124
Lab ID: 1005124-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**302**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 18:23
Magnesium	**113**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 18:23
Potassium	**27.0**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 18:23
Sodium	**2,980**		**50**	**100**	**mg/L**	500	5/19/2010 15:28
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**4,420**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 14:57
Fluoride	**1.54**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 11:33
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 11:33
Sulfate	**1,640**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 14:57
Surr: Selenate (surr)	*98.6*			*85-115*	*%REC*	1	5/6/2010 11:33
Surr: Selenate (surr)	*90.7*			*85-115*	*%REC*	100	5/6/2010 14:57
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**482**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**482**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**10,300**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-3 050510
Collection Date: 5/5/2010 12:40 PM

Work Order: 1005124
Lab ID: 1005124-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**602**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 18:28
Magnesium	**198**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 18:28
Potassium	**16.1**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 18:28
Sodium	**4,920**		**50**	**100**	**mg/L**	500	5/19/2010 15:33
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**7,120**		**40.0**	**100**	**mg/L**	200	5/6/2010 15:55
Fluoride	**1.32**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 11:48
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 11:48
Sulfate	**1,980**		**40.0**	**100**	**mg/L**	200	5/6/2010 15:55
Surr: Selenate (surr)	*93.6*			*85-115*	*%REC*	1	5/6/2010 11:48
Surr: Selenate (surr)	*90.7*			*85-115*	*%REC*	200	5/6/2010 15:55
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**462**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**462**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**15,300**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-4 050510
Collection Date: 5/5/2010 01:30 PM

Work Order: 1005124
Lab ID: 1005124-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**160**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 18:41
Magnesium	**103**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 18:41
Potassium	**6.69**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 18:41
Sodium	**3,590**		**50**	**100**	**mg/L**	500	5/19/2010 15:49
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**4,760**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 16:39
Fluoride	**2.69**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 12:03
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 12:03
Sulfate	**1,040**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 16:39
Surr: Selenate (surr)	*95.7*			*85-115*	*%REC*	1	5/6/2010 12:03
Surr: Selenate (surr)	*91.1*			*85-115*	*%REC*	100	5/6/2010 16:39
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**884**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**884**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**11,300**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-5 050510
Collection Date: 5/5/2010 01:45 PM

Work Order: 1005124
Lab ID: 1005124-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**497**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 18:46
Magnesium	**181**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 18:46
Potassium	**23.5**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 18:46
Sodium	**4,140**		**50**	**100**	**mg/L**	500	5/19/2010 15:54
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**5,630**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 16:54
Fluoride	**1.40**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 12:17
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 12:17
Sulfate	**1,760**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 16:54
Surr: Selenate (surr)	*99.8*			*85-115*	*%REC*	1	5/6/2010 12:17
Surr: Selenate (surr)	*94.6*			*85-115*	*%REC*	100	5/6/2010 16:54
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**492**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**492**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**12,600**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-6 050510
Collection Date: 5/5/2010 01:00 PM

Work Order: 1005124
Lab ID: 1005124-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**415**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 18:56
Magnesium	**154**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 18:56
Potassium	**14.3**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 18:56
Sodium	**5,070**		**50**	**100**	**mg/L**	500	5/19/2010 15:59
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**6,100**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:08
Fluoride	**1.96**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 12:32
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 12:32
Sulfate	**2,080**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:08
Surr: Selenate (surr)	*106*			*85-115*	*%REC*	1	5/6/2010 12:32
Surr: Selenate (surr)	*91.0*			*85-115*	*%REC*	100	5/6/2010 17:08
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**583**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**583**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**15,000**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-7 050510
Collection Date: 5/5/2010 10:50 AM

Work Order: 1005124
Lab ID: 1005124-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**			Prep: SW3010A / 5/14/10		Analyst: **ALR**
Calcium	**518**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 19:12
Magnesium	**172**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 19:12
Potassium	**19.6**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 19:12
Sodium	**4,090**		**50**	**100**	**mg/L**	500	5/19/2010 16:05
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**5,670**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:23
Fluoride	**1.39**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 12:46
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 12:46
Sulfate	**1,840**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:23
Surr: Selenate (surr)	*102*			*85-115*	*%REC*	1	5/6/2010 12:46
Surr: Selenate (surr)	*97.4*			*85-115*	*%REC*	100	5/6/2010 17:23
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**422**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**422**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**11,300**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-8 050510
Collection Date: 5/5/2010 02:00 PM

Work Order: 1005124
Lab ID: 1005124-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**			Prep: SW3010A / 5/14/10		Analyst: **ALR**
Calcium	**218**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 19:17
Magnesium	**71.8**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 19:17
Potassium	**17.4**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 19:17
Sodium	**1,460**		**20**	**40.0**	**mg/L**	200	5/19/2010 16:10
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**2,080**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:37
Fluoride	**3.14**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 13:44
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 13:44
Sulfate	**599**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:37
Surr: Selenate (surr)	*98.6*			*85-115*	*%REC*	1	5/6/2010 13:44
Surr: Selenate (surr)	*95.9*			*85-115*	*%REC*	100	5/6/2010 17:37
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**583**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**583**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**5,010**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: WW 050510
Collection Date: 5/5/2010 01:15 PM

Work Order: 1005124
Lab ID: 1005124-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**304**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 19:28
Magnesium	**158**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 19:28
Potassium	**11.8**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 19:28
Sodium	**2,470**		**50**	**100**	**mg/L**	500	5/19/2010 16:15
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**4,970**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:52
Fluoride	ND		0.0500	0.100	mg/L	1	5/6/2010 13:59
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 13:59
Sulfate	**767**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 17:52
Surr: Selenate (surr)	*95.6*			*85-115*	*%REC*	1	5/6/2010 13:59
Surr: Selenate (surr)	*96.2*			*85-115*	*%REC*	100	5/6/2010 17:52
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**10,200**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *20-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: Dup 050510
Collection Date: 5/5/2010

Work Order: 1005124
Lab ID: 1005124-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**205**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 19:33
Magnesium	**117**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 19:33
Potassium	**8.37**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 19:33
Sodium	**3,810**		**50**	**100**	**mg/L**	500	5/19/2010 16:20
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**4,880**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 18:06
Fluoride	**3.37**		**0.0500**	**0.100**	**mg/L**	1	5/6/2010 14:14
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/6/2010 14:14
Sulfate	**872**		**20.0**	**50.0**	**mg/L**	100	5/6/2010 18:06
Surr: Selenate (surr)	*94.5*			*85-115*	*%REC*	1	5/6/2010 14:14
Surr: Selenate (surr)	*98.0*			*85-115*	*%REC*	100	5/6/2010 18:06
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**1,130**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**1,130**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**10,600**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Batch ID: **42953** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW2-051410-42953** Units: **mg/L** Analysis Date: **5/18/2010 05:26 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962619** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	0.50								
Magnesium	ND	0.20								
Potassium	ND	0.20								
Sodium	ND	0.20								

LCS Sample ID: **MLCSW2-051410-42953** Units: **mg/L** Analysis Date: **5/18/2010 05:32 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962620** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.249	0.50	5	0	105	80-120	0			
Magnesium	4.555	0.20	5	0	91.1	80-120	0			
Potassium	4.631	0.20	5	0	92.6	80-120	0			
Sodium	4.579	0.20	5	0	91.6	80-120	0			

MS Sample ID: **1005203-06AMS** Units: **mg/L** Analysis Date: **5/18/2010 05:52 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962624** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	56.23	0.50	5	50.98	105	75-125	0			O
Magnesium	18.89	0.20	5	14.54	87	75-125	0			
Potassium	7.696	0.20	5	3.206	89.8	75-125	0			
Sodium	47.88	0.20	5	43.56	86.4	75-125	0			O

MSD Sample ID: **1005203-06AMSD** Units: **mg/L** Analysis Date: **5/18/2010 05:58 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962872** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	56.83	0.50	5	50.98	117	75-125	56.23	1.06	25	O
Magnesium	19.08	0.20	5	14.54	90.8	75-125	18.89	1	25	
Potassium	7.776	0.20	5	3.206	91.4	75-125	7.696	1.03	25	
Sodium	48.52	0.20	5	43.56	99.2	75-125	47.88	1.33	25	O

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005124
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **42953** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1005203-06ADUP** Units: **mg/L** Analysis Date: **5/18/2010 05:42 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962622** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	49.7	0.50	0	0	0	0-0	50.98	2.54	25	
Magnesium	14.16	0.20	0	0	0	0-0	14.54	2.65	25	
Potassium	3.149	0.20	0	0	0	0-0	3.206	1.79	25	
Sodium	42.15	0.20	0	0	0	0-0	43.56	3.29	25	

The following samples were analyzed in this batch:

1005124-01A	1005124-02A	1005124-03A
1005124-04A	1005124-05A	1005124-06A
1005124-07A	1005124-08A	1005124-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005124
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90573** Instrument ID **ICS2100** Method: **E300**

MBLK Sample ID: **WBLKW3-050610-R90573** Units: **mg/L** Analysis Date: **5/6/2010 10:24 AM**
Client ID: Run ID: **ICS2100_100506A** SeqNo: **1951086** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.558*	0.10	*5*	0	*91.2*	*85-115*	0			

LCS Sample ID: **WLCSW3-050610-R90573** Units: **mg/L** Analysis Date: **5/6/2010 10:39 AM**
Client ID: Run ID: **ICS2100_100506A** SeqNo: **1951087** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.14	0.50	20	0	101	90-110	0			
Fluoride	4.138	0.10	4	0	103	90-110	0			
Nitrogen, Nitrate (As N)	4.012	0.10	4	0	100	90-110	0			
Sulfate	20.19	0.50	20	0	101	90-110	0			
Surr: Selenate (surr)	*4.919*	0.10	*5*	0	*98.4*	*85-115*	0			

LCSD Sample ID: **WLCSDW3-050610-R90573** Units: **mg/L** Analysis Date: **5/6/2010 11:19 AM**
Client ID: Run ID: **ICS2100_100506A** SeqNo: **1951088** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.61	0.50	20	0	98.1	90-110	20.14	2.63	20	
Fluoride	4.04	0.10	4	0	101	90-110	4.138	2.4	20	
Nitrogen, Nitrate (As N)	3.9	0.10	4	0	97.5	90-110	4.012	2.83	20	
Sulfate	19.48	0.50	20	0	97.4	90-110	20.19	3.6	20	
Surr: Selenate (surr)	*4.764*	0.10	*5*	0	*95.3*	*85-115*	4.919	*3.2*	*20*	

MS Sample ID: **1005124-01BMS** Units: **mg/L** Analysis Date: **5/6/2010 02:28 PM**
Client ID: **MW-1 050510** Run ID: **ICS2100_100506A** SeqNo: **1951100** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4189	0.50	10	4308	-1190	80-120	0			SEO
Fluoride	3.51	0.10	2	1.537	98.6	80-120	0			
Nitrogen, Nitrate (As N)	1.392	0.10	2	0	69.6	80-120	0			S
Sulfate	1621	0.50	10	1670	-490	80-120	0			SEO
Surr: Selenate (surr)	*5.107*	0.10	*5*	0	*102*	*85-115*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005124
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90573** Instrument ID **ICS2100** Method: **E300**

MS Sample ID: **1005122-01BMS** Units: **mg/L** Analysis Date: **5/6/2010 03:26 PM**
Client ID: Run ID: **ICS2100_100506A** SeqNo: **1951104** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	78.18	0.50	10	68.83	93.5	80-120	0			O
Fluoride	5.801	0.10	2	3.726	104	80-120	0			
Nitrogen, Nitrate (As N)	2.846	0.10	2	1.001	92.2	80-120	0			
Sulfate	496.2	0.50	10	487.9	83	80-120	0			EO
Surr: Selenate (surr)	*4.781*	0.10	*5*	0	*95.6*	*85-115*	0			

MSD Sample ID: **1005124-01BMSD** Units: **mg/L** Analysis Date: **5/6/2010 02:43 PM**
Client ID: **MW-1 050510** Run ID: **ICS2100_100506A** SeqNo: **1951101** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4042	0.50	10	4308	-2660	80-120	4189	3.57	20	SEO
Fluoride	3.374	0.10	2	1.537	91.8	80-120	3.51	3.95	20	
Nitrogen, Nitrate (As N)	1.304	0.10	2	0	65.2	80-120	1.392	6.53	20	S
Sulfate	1560	0.50	10	1670	-1100	80-120	1621	3.85	20	SEO
Surr: Selenate (surr)	*4.952*	0.10	*5*	0	*99*	*85-115*	5.107	*3.08*	*20*	

MSD Sample ID: **1005122-01BMSD** Units: **mg/L** Analysis Date: **5/6/2010 03:41 PM**
Client ID: Run ID: **ICS2100_100506A** SeqNo: **1951105** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	78.12	0.50	10	68.83	92.9	80-120	78.18	0.0781	20	O
Fluoride	5.811	0.10	2	3.726	104	80-120	5.801	0.172	20	
Nitrogen, Nitrate (As N)	2.849	0.10	2	1.001	92.4	80-120	2.846	0.105	20	
Sulfate	496.1	0.50	10	487.9	81.9	80-120	496.2	0.0226	20	EO
Surr: Selenate (surr)	*4.776*	0.10	*5*	0	*95.5*	*85-115*	4.781	*0.105*	*20*	

The following samples were analyzed in this batch:

1005124-01B	1005124-02B	1005124-03B
1005124-04B	1005124-05B	1005124-06B
1005124-07B	1005124-08B	1005124-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005124
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90806** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R90806** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: Run ID: **BALANCE1_100511I** SeqNo: **1955584** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R90806** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: Run ID: **BALANCE1_100511I** SeqNo: **1955586** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	950	10	1000	0	95	85-115	0			

DUP Sample ID: **1005124-01BDUP** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: **MW-1 050510** Run ID: **BALANCE1_100511I** SeqNo: **1955558** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	10250	10	0	0	0	0-0	10280	0.292	20	

DUP Sample ID: **1005172-01BDUP** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: Run ID: **BALANCE1_100511I** SeqNo: **1955568** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	8715	10	0	0	0	0-0	8675	0.46	20	

The following samples were analyzed in this batch:

1005124-01B	1005124-02B	1005124-03B
1005124-04B	1005124-05B	1005124-06B
1005124-07B	1005124-08B	1005124-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005124
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90988** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-51410-R90988** Units: **mg/L** Analysis Date: **5/14/2010 02:00 PM**
Client ID: Run ID: **WETCHEM_100514G** SeqNo: **1959510** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-51410-R90988** Units: **mg/L** Analysis Date: **5/14/2010 02:00 PM**
Client ID: Run ID: **WETCHEM_100514G** SeqNo: **1959511** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1005	5.0	1000	0	100	80-120	0			
Alkalinity, Total (As CaCO3)	1005	5.0	1000	0	100	80-120	0			

DUP Sample ID: **1005124-01BDUP** Units: **mg/L** Analysis Date: **5/14/2010 02:00 PM**
Client ID: **MW-1 050510** Run ID: **WETCHEM_100514G** SeqNo: **1959522** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	482.4	5.0	0	0	0	0-0	482.4	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	482.4	5.0	0	0	0	0-0	482.4	0	20	

The following samples were analyzed in this batch:

1005124-01B	1005124-02B	1005124-03B
1005124-04B	1005124-05B	1005124-06B
1005124-07B	1005124-08B	1005124-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

Date: 20-May-10

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
WorkOrder: 1005124

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
mg/L	Milligrams per Liter

Chain of Custody Form

☐ ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

☐ ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: WO524

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	JR Phillips	A	Dissolved Metals (6020/7000) Ca,Mg, Na, K
Work Order		Project Number	39126	B	Anions (300) Cl, F, SO4, NO3
Company Name	Conestoga-Rovers & Associates	Bill To Company	Conestoga-Rovers & Associates	C	Alkalinity
Send Report To	Patricia Lynch & Todd Wells	Invoice Attn	Patricia Lynch & Todd Wells	D	TDS
Address	6320 Rothway, Suite 100	Address	6320 Rothway, Suite 100	E	
				F	
City/State/Zip	Houston, TX 77040	City/State/Zip	Houston, TX 77040	G	
Phone	(713) 734-3090	Phone	(713) 734-3090	H	
Fax	(713) 734-3391	Fax	(713) 734-3391	I	
e-Mail Address	twells@craworld.com	e-Mail Address	twells@craworld.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1 050510	5-5-10	12:20	Water	Neat	2	X	X	X	X							
2	MW-3 050510	5-5-10	12:40	Water	Neat	2	X	X	X	X							
3	MW-4 050510	5-5-10	1330	Water	Neat	2	X	X	X	X							
4	MW-5 050510	5-5-10	1345	Water	Neat	2	X	X	X	X							
5	MW-6 050510	5-5-10	1300	Water	Neat	2	X	X	X	X							
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Cory Coleman

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Todd Wells	5-5-10	1800	
Relinquished by:	Date:	Time:	Received by (Laboratory): 5/6/10 09:25
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Day TAT. Chevron Site

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
4123		☑ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other _____ ☐ TRRP CheckList ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

☐ ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
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Fax. +1 281 530 5887

Chain of Custody Form

Page 2 of 2

☐ ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1052124

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	JR Phillips	A	Dissolved Metals (6020/7000) Ca,Mg, Na, K
Work Order		Project Number	39126	B	Anions (300) Cl, F, SO4, NO3
Company Name	Conestoga-Rovers & Associates	Bill To Company	Conestoga-Rovers & Associates	C	Alkalinity
Send Report To	Patricia Lynch & Todd Wells	Invoice Attn	Patricia Lynch	D	TDS
Address	6320 Rothway, Suite 100	Address	6320 Rothway, Suite 100	E	
				F	
City/State/Zip	Houston, TX 77040	City/State/Zip	Houston, TX 77040	G	
Phone	(713) 734-3090	Phone	(713) 734-3090	H	
Fax	(713) 734-3391	Fax	(713) 734-3391	I	
e-Mail Address	twells@craworld.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-7 050510	5-5-10	10:50	Water	Neat	2	X	X	X	X							
2	MW-8 050510	5-5-10	1400	Water	Neat	2	X	X	X	X							
3	WW 050510	5-5-10	1315	Water	Neat	2	X	X	X	X							
4	Dup 050510	5-5-10	—	Water	Neat	2	X	X	X	X							
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Cory Coleman

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by: Todd Wells	Date: 5-5-10	Time: 1800	Received by:	Notes: 10 Day TAT. Chevron Site	
Relinquished by:	Date:	Time:	Received by (Laboratory): 5/6/10 09:25	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-NaHSO 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **CRA-HOU** Date/Time Received: **06-May-10 09:25**

Work Order: **1005124** Received by: **RNG**

Checklist completed by Raynaldo Garcia (eSignature) 06-May-10 (Date) Reviewed by: (eSignature) (Date)

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	2.1c, 1.8c	002	
Cooler(s)/Kit(s):	3423, 3417		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

W.O.# 1005124

This portion can be removed for Recipient's records.

Date: 5-5-10 FedEx Tracking Number: 869809949775

Sender's Name: Todd Wells Phone: 432 686-0086

Company: CRA

Address: 2135 S. Loop 250 W. Dept/Floor/Suite/Room:

City: Midland State: TX ZIP: 79703

Your Internal Billing Reference: 039126 3423

ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date: 5-5-
Name: To
Company:

CUSTODY SEAL 3423

Time: 1800

Todd Wells

CRA

Seal Broken By: AG

Date: 5/6/10

This portion can be removed for Recipient's records.

Date: 5-5-10 FedEx Tracking Number: 869809949786

Sender's Name: Todd Wells Phone: 432 686-0086

Company: CRA

Address: 2135 S. Loop 250 W.

City: Midland State: TX ZIP: 7970[illegible] Dept/Floor/Suite/Room:

Your Internal Billing Reference: 039126 3417

ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date: 5-5-1[illegible]
Name: Todd
Company: CR

CUSTODY SEAL 3417

Time: 1800

WC

Seal Broken By: AG

Date: 5/6/10

W.O. # 10512?

CRA Simplified Scope of Work (SSOW)

SSOW Ref. Code

Project Summary:

Project Name: JR Phillips
Project No./Phase/Task: 039126
Project Location: Lea County, New Mexico
Client Name: Chevron Environmental Management Company
QAPP Title:

Database Summary:

Database Maintained: ☑ Yes ☐ No
Database Contact: Gabriel, Craig
Database Facility Code: 039126-CB-Chevron

Note: *Is there more than one laboratory for this event? (SSOW__ of __)* ☐ Yes ☑ No

Event Summary:

Phase/Study Title: Groundwater Monitoring
Event Description: Annual Sampling Event
Start Date: 05/01/10
Sampling Duration: 2 days
Sampling Frequency: annually

Rush TAT: ☐ NA
Final Report & EDD TAT: 14 days
Sample Batching: sample event
Date Bottles Required: 5/3/2010
Bottle Shipping Address: CRA/ 2135 S Loop 250 W
Midland, TX 79703
Phone Number: 432-686-0086
Attention: Todd Wells
Pre-printed Labels Required: ☑ Yes ☐ No *If yes, see attached Pre-Printed Sample Bottle Labels Specifications*

Contacts:	Name	Address	Phone	Cell	Email
Client Project Manager:	Matt Hudson	15 Smith Road Room 5317, Midland, TX 79705		281-460-6521	mhkw@chevron.com
Consulting Firm:	CRA				
Project Manager:	Todd Wells	2135 S Loop 250 W, Midland, TX 79703	432-686-0086	432-230-4310	twells@craworld.com
Field Leader:					dcrenshaw@craworld.com
Laboratory (Vendor):	ALS Laboratory Group				
Lab Project Manager:	Hector Coronado	10450 Stancliff Road, Suite 210, Houston, Texas 77099	281-530-5656		Hector. Coronado@ALSEnviro.com
Chemistry/Data Mgt. Firm:					
Chemist :	Lynch, Patricia	6320 Rothway Suite 100, Houston, Texas, 77040	713-734-3090		plynch@craworld.com
Data Manager:	Julie Lidstone				

Lab Deliverables

EDD Format	☑ CRA EQuIS EZEDD	☐ CRA EQuIS 4-file	☐ Other (Please Specify)	
Hardcopy Level Requested	☑ CRA Standard	☐ Expanded	☐ Other (Please Specify)	
CRA Data Review Level	☑ Compliance	☐ Reduced Validation	☐ Reg III Innovative	
	☐ Full Validation	☐ 10/90-Full/Innovative	☐ Other (Please Specify)	

Lab Deliverables Distribution

Rush TAT Data (email deliverable only) :
Final EDD & Result Summary (PDF) :
Final Lab Report ☑ PDF ☐ CD ☐ Hard Copy : Todd Wells, Pat Lynch

Additional Reporting Requirements

Form 1's include: ☐ MDLs ☑ PQLs ☐ J Values
TICs: ☐ Yes ☑ No
Soil Reporting: ☐ Dry ☐ Wet
Database Exports - Reporting down to MDL ☐ Yes ☑ No

Data Management Deliverables ☑ EQuIS Database ☐ Cross Tab Table ☐ Flat File ☐ Databox ☐ Other (please specify):

Data Management Deliverables Distribution Distribution List: Todd Wells
Data Management DV TAT:

Comments

*** additional Final Lab Report copy (in *.pdf format) will be available on CRA's FTP site; for access to the FTP site, please contact project Chemist

SSOW Email Distribution List: mhkw@chevron.com; twells@craworld.com; dcrenshaw@craworld.com; Hector. Coronado@ALSEnviro.com; plynch@craworld.com;

Prepared By:	Desiree Crenshaw	Date:	4/27/2010	Revision No.:	0	Revision Date:	

CRA Simplified Scope of Work (SSOW)

Project Name: JR Phillips
Project No./Phase/Task: 039126
Project Location: Lea County, New Mexico

Phase/Study Title: Groundwater Monitoring
Event Description: Annual Sampling Event

Item	Sample Matrix	Analytical Parameters	Analytical Methods	EQuIS Analytical Method Code	Unit Prices	Applicable Surcharge Multiplier (1)	Extended Prices	Estimated Sample Qty/Event	Field QC Samples							Total Sample Qty.	Billable Samples	Estimated Cost/Event
									MS	MSD	Lab Dup	Trip Blk	RBlk	Fld Dup	Other			
1	WG	Dissolved Ca, Mg, Na, K	SW6020					10						1		11	11	
2	WG	Alkalinity (Carbonate/Bicarbonate)	SM2320B					10						1		11	11	
3	WG	Fluoride, Sulfate, Nitrate-N, Chloride	EPA'300.0					10						1		11	11	
4	WG	TDS	SM2540C					10						1		11	11	

(1) Explanation of Surcharges:

Estimated Event Subtotal:	$0.00
Laboratory Surcharge(s):	#VALUE!
Estimated Event Total Costs:	$0.00

Lab Contracting Summary:

Governing Terms and Conditions

- ☐ **Master Agreement Number:**
- ☐ **Exhibit "A" Terms and Conditions**
- ☑ **Client Contract**

CRA Purchase Order Number:
Other Additional Insureds:
Governing Law: New Mexico
Address Invoice to: CRA/ Pat Lynch
6320 Rothway, Suite 100
Houston, Texas 77040

OFFERED BY: Patricia L. Lynch
(authorized signature)

ACCEPTED BY:
(authorized signature)
Typed name constitutes e-mail signature.

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

21-May-2010

Patricia Lynch
Conestoga-Rovers & Associates
6320 Rothway, Suite 100
Houston, TX 77040

Tel: (713) 734-3090
Fax: (713) 734-3391

Re: JR Phillips - 039126 Work Order: **1005172**

Dear Patricia,

ALS Laboratory Group received 1 sample on 07-May-2010 09:35 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Shannon L. Tyrell

Electronically approved by: Glenda H. Ramos

Shannon L. Tyrell
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

Certificate No: T104704231-09A-TX

ALS Laboratory Group

Date: 21-May-10

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Work Order: **1005172**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1005172-01	MW-2 050610	Water		5/6/2010 12:00	5/7/2010 09:35	☐

ALS Laboratory Group

Date: 21-May-10

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Work Order: 1005172

Case Narrative

Batch R90627, Anions, Sample MW-2 050610: MS/MSD recoveries were outside control limits for Chloride, Nitrate, & Sulfate due to matrix interference. The results for Chloride and Sulfate are "E" and "O" qualified.

ALS Laboratory Group

Date: *21-May-10*

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
Sample ID: MW-2 050610
Collection Date: 5/6/2010 12:00 PM

Work Order: 1005172
Lab ID: 1005172-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: **SW6020**		Prep: SW3010A / 5/14/10			Analyst: **ALR**
Calcium	**385**		**0.25**	**2.50**	**mg/L**	5	5/18/2010 19:44
Magnesium	**135**		**0.20**	**1.00**	**mg/L**	5	5/18/2010 19:44
Potassium	**19.7**		**0.50**	**1.00**	**mg/L**	5	5/18/2010 19:44
Sodium	**3,100**		**50**	**100**	**mg/L**	500	5/19/2010 15:23
ANIONS		Method: **E300**					Analyst: **IGF**
Chloride	**4,190**		**20.0**	**50.0**	**mg/L**	100	5/7/2010 12:23
Fluoride	**1.56**		**0.0500**	**0.100**	**mg/L**	1	5/7/2010 11:40
Nitrogen, Nitrate (As N)	ND		0.0300	0.100	mg/L	1	5/7/2010 11:40
Sulfate	**1,370**		**20.0**	**50.0**	**mg/L**	100	5/7/2010 12:23
Surr: Selenate (surr)	*108*			*85-115*	*%REC*	1	5/7/2010 11:40
Surr: Selenate (surr)	*100*			*85-115*	*%REC*	100	5/7/2010 12:23
ALKALINITY		Method: **SM2320B**					Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**422**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
Alkalinity, Carbonate (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Hydroxide (As CaCO3)	ND		2.0	5.00	mg/L	1	5/14/2010 14:00
Alkalinity, Total (As CaCO3)	**422**		**2.0**	**5.00**	**mg/L**	1	5/14/2010 14:00
TOTAL DISSOLVED SOLIDS		Method: **M2540C**					Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**8,680**		**5.0**	**10.0**	**mg/L**	1	5/11/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Batch ID: **42953** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW2-051410-42953** Units: **mg/L** Analysis Date: **5/18/2010 05:26 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962619** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	0.50								
Magnesium	ND	0.20								
Potassium	ND	0.20								
Sodium	ND	0.20								

LCS Sample ID: **MLCSW2-051410-42953** Units: **mg/L** Analysis Date: **5/18/2010 05:32 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962620** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.249	0.50	5	0	105	80-120	0			
Magnesium	4.555	0.20	5	0	91.1	80-120	0			
Potassium	4.631	0.20	5	0	92.6	80-120	0			
Sodium	4.579	0.20	5	0	91.6	80-120	0			

MS Sample ID: **1005203-06AMS** Units: **mg/L** Analysis Date: **5/18/2010 05:52 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962624** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	56.23	0.50	5	50.98	105	75-125	0			O
Magnesium	18.89	0.20	5	14.54	87	75-125	0			
Potassium	7.696	0.20	5	3.206	89.8	75-125	0			
Sodium	47.88	0.20	5	43.56	86.4	75-125	0			O

MSD Sample ID: **1005203-06AMSD** Units: **mg/L** Analysis Date: **5/18/2010 05:58 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962872** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	56.83	0.50	5	50.98	117	75-125	56.23	1.06	25	O
Magnesium	19.08	0.20	5	14.54	90.8	75-125	18.89	1	25	
Potassium	7.776	0.20	5	3.206	91.4	75-125	7.696	1.03	25	
Sodium	48.52	0.20	5	43.56	99.2	75-125	47.88	1.33	25	O

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005172
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **42953** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1005203-06ADUP** Units: **mg/L** Analysis Date: **5/18/2010 05:42 PM**

Client ID: Run ID: **ICPMS03_100518A** SeqNo: **1962622** Prep Date: **5/14/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	49.7	0.50	0	0	0	0-0	50.98	2.54	25	
Magnesium	14.16	0.20	0	0	0	0-0	14.54	2.65	25	
Potassium	3.149	0.20	0	0	0	0-0	3.206	1.79	25	
Sodium	42.15	0.20	0	0	0	0-0	43.56	3.29	25	

The following samples were analyzed in this batch: 1005172-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005172
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90627** Instrument ID **ICS2100** Method: **E300**

MBLK Sample ID: **WBLKW3-050710-R90627** Units: **mg/L** Analysis Date: **5/7/2010 09:54 AM**
Client ID: Run ID: **ICS2100_100507A** SeqNo: **1952462** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.818*	0.10	*5*	0	*96.4*	*85-115*	0			

LCS Sample ID: **WLCSW3-050710-R90627** Units: **mg/L** Analysis Date: **5/7/2010 10:09 AM**
Client ID: Run ID: **ICS2100_100507A** SeqNo: **1952463** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.91	0.50	20	0	99.6	90-110	0			
Fluoride	4.122	0.10	4	0	103	90-110	0			
Nitrogen, Nitrate (As N)	3.971	0.10	4	0	99.3	90-110	0			
Sulfate	19.98	0.50	20	0	99.9	90-110	0			
Surr: Selenate (surr)	*4.911*	0.10	*5*	0	*98.2*	*85-115*	0			

LCSD Sample ID: **WLCSDW3-050710-R90627** Units: **mg/L** Analysis Date: **5/7/2010 10:23 AM**
Client ID: Run ID: **ICS2100_100507A** SeqNo: **1952464** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.59	0.50	20	0	103	90-110	19.91	3.36	20	
Fluoride	4.253	0.10	4	0	106	90-110	4.122	3.13	20	
Nitrogen, Nitrate (As N)	4.104	0.10	4	0	103	90-110	3.971	3.29	20	
Sulfate	20.47	0.50	20	0	102	90-110	19.98	2.45	20	
Surr: Selenate (surr)	*5.043*	0.10	*5*	0	*101*	*85-115*	4.911	*2.65*	*20*	

MS Sample ID: **1005172-01BMS** Units: **mg/L** Analysis Date: **5/7/2010 11:54 AM**
Client ID: **MW-2 050610** Run ID: **ICS2100_100507A** SeqNo: **1952469** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3955	0.50	10	4147	-1920	80-120	0			SEO
Fluoride	3.554	0.10	2	1.563	99.6	80-120	0			
Nitrogen, Nitrate (As N)	1.573	0.10	2	0	78.6	80-120	0			S
Sulfate	1354	0.50	10	1421	-672	80-120	0			SEO
Surr: Selenate (surr)	*5.425*	0.10	*5*	0	*108*	*85-115*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005172
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90627** Instrument ID **ICS2100** Method: **E300**

MSD Sample ID: **1005172-01BMSD** Units: **mg/L** Analysis Date: **5/7/2010 12:09 PM**

Client ID: **MW-2 050610** Run ID: **ICS2100_100507A** SeqNo: **1952470** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3802	0.50	10	4147	-3450	80-120	3955	3.93	20	SEO
Fluoride	3.402	0.10	2	1.563	92	80-120	3.554	4.37	20	
Nitrogen, Nitrate (As N)	1.55	0.10	2	0	77.5	80-120	1.573	1.47	20	S
Sulfate	1303	0.50	10	1421	-1180	80-120	1354	3.83	20	SEO
Surr: Selenate (surr)	*5.235*	0.10	*5*	0	*105*	*85-115*	5.425	*3.56*	*20*	

The following samples were analyzed in this batch: 1005172-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005172
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90806** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R90806** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: Run ID: **BALANCE1_100511I** SeqNo: **1955584** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R90806** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: Run ID: **BALANCE1_100511I** SeqNo: **1955586** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	950	10	1000	0	95	85-115	0			

DUP Sample ID: **1005124-01BDUP** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: Run ID: **BALANCE1_100511I** SeqNo: **1955558** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	10250	10	0	0	0	0-0	10280	0.292	20	

DUP Sample ID: **1005172-01BDUP** Units: **mg/L** Analysis Date: **5/11/2010 05:00 PM**
Client ID: **MW-2 050610** Run ID: **BALANCE1_100511I** SeqNo: **1955568** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	8715	10	0	0	0	0-0	8675	0.46	20	

The following samples were analyzed in this batch: 1005172-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 1005172
Project: JR Phillips - 039126

QC BATCH REPORT

Batch ID: **R90988** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-51410-R90988** Units: **mg/L** Analysis Date: **5/14/2010 02:00 PM**
Client ID: Run ID: **WETCHEM_100514G** SeqNo: **1959510** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-51410-R90988** Units: **mg/L** Analysis Date: **5/14/2010 02:00 PM**
Client ID: Run ID: **WETCHEM_100514G** SeqNo: **1959511** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1005	5.0	1000	0	100	80-120	0			
Alkalinity, Total (As CaCO3)	1005	5.0	1000	0	100	80-120	0			

DUP Sample ID: **1005124-01BDUP** Units: **mg/L** Analysis Date: **5/14/2010 02:00 PM**
Client ID: Run ID: **WETCHEM_100514G** SeqNo: **1959522** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	482.4	5.0	0	0	0	0-0	482.4	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	482.4	5.0	0	0	0	0-0	482.4	0	20	

The following samples were analyzed in this batch: 1005172-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

Date: 21-May-10

Client: Conestoga-Rovers & Associates
Project: JR Phillips - 039126
WorkOrder: **1005172**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
mg/L	Milligrams per Liter

ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 1

☐ ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1005177

Customer Information

Purchase Order	
Work Order	
Company Name	Conestoga Rovers & Assoc.
Send Report To	Patricia Lynch/Todd Wells
Address	6320 Rothway Suite 100
City/State/Zip	Houston, TX 77040
Phone	(713) 734-3090
Fax	(713) 734-3391
e-Mail Address	twells@craworld.com

Project Information

Project Name	CEMC - J.R. Phillips
Project Number	039126
Bill To Company	Conestoga Rovers & Assoc.
Invoice Attn	Patricia Lynch
Address	6320 Rothway, Suite 100
City/State/Zip	Houston, TX 77040
Phone	(713) 734-3090
Fax	(713) 734-3090
e-Mail Address	twells@craworld.com

Parameter/Method Request for Analysis

A	Dissolved Metals Ca, Mg, Na, K
B	Anions (300) Cl, F, SO_4, NO_3
C	Alkalinity
D	TDS
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-2 050610	5-6-10	1200	Water	Neat	2	X	X	X	X							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Todd Wells Todd Wells

Shipment Method: Fed EX

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by: Todd Wells	Date: 5-6-10	Time: 1745	Received by:	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date: 5/7/10 Time: 0835
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other _____
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **CRA-HOU** Date/Time Received: **07-May-10 09:35**

Work Order: **1005172** Received by: **RDH**

Checklist completed by R. D. Haris (eSignature) 07-May-10 (Date) Reviewed by: S. L. Tyl (eSignature) 07-May-10 (Date)

Matrices: waters
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.7c	002	
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

100217

...n This portion can be removed for Recipient's records.

...te 5-6-10 FedEx Tracking Number 869809949812

...nder's ...me Todd Wells Phone 432 686-0086

Company CRA

Address 2135 S. Loop 250 W. Dept./Floor/Suite/Room

...y Midland State TX ZIP 79703

...ur Internal Billing Reference 039126

RT 723 1 A

ALS Laborato...
10450 Stancliff Rd., Suite 21...
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

...P CUSTODY SE...EAL

Date: 5-6-10 Time: ...1745

Name: Todd Wells

Company: CRA

Seal Broken By:

Date: 5/11/10

...ntrol