2010 ANNUAL GROUNDWATER MONITORING REPORT

COOPER-JAL UNIT SOUTH INJECTION STATION
CASE NO. 1R289
OGRID NO. 4323
NW/4, NW/4, SE/4, SECTION 24, T-24-S, R-36-E
LATITUDE: N 32° 12′ 7.3″ LONGITUDE: W 103° 12′ 59.9″
LEA COUNTY, NEW MEXICO

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1.0 INTRODUCTION

This Annual Groundwater Monitoring Report presents groundwater data collected during the 2010 reporting period by Conestoga-Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company (CEMC) at the Cooper-Jal Unit South Injection Station (hereafter referred to as the "Site"). Groundwater sampling events were performed on May 5-7, 2010 and on November 8-12, 2010.

The Site is located on Lea County Road J7, approximately 5.5 miles northwest of Jal, New Mexico and situated in Unit Letter J, northwest quarter (NW/4) of the northwest quarter (NW/4) of the southeast quarter (SE/4), Section 24, Township 24 South, Range 36 East, Lea County, New Mexico. The Site is relatively flat and improved with bermed above-ground storage tanks (ASTs), hardened caliche roadways, oil and gas production equipment that includes four production wells. Land use in the vicinity of the Site is undeveloped rangeland vegetated with indigenous grass, livestock ranching, oil and gas production. The topography slopes southeast toward Monument Draw located approximately 7.5 miles southeast of the Site. A Site Location Map is presented as FIGURE 1.

Site assessment activities were initiated in 1993 when Environmental Spill Control, Inc. (ESCI) of Hobbs, New Mexico performed a subsurface assessment of an unlined earthen emergency produced water overflow pit that was located adjacent to the west edge of the Site. During the investigation, five boreholes were installed to depths ranging from 15 feet to 100 feet below ground surface (bgs). The investigation revealed the presence of hydrocarbon-affected soil. In 1996, Texaco Exploration and Production, Inc. (Texaco) filed a notice of intent to close the pit with the New Mexico Oil Conservation Division (NMOCD). Approximately 1,248 cubic yards of hydrocarbon-affected material were removed from the pit. During the closure activities, the excavation was lined with approximately 1,091 cubic yards of imported clay and backfilled with 3,360 cubic yards of imported caliche. Texaco submitted the pit closure report to the NMOCD in December 1996.

In 1997, the NMOCD requested additional assessment activities to define the vertical extent of affected soil beneath the pit. Assessment activities performed by Highlander Environmental Corporation revealed elevated soil chloride concentrations. In October 1997, monitor well MW-1 was installed near the former pit. Groundwater samples collected from the well contained chloride concentrations above the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards for Groundwater. Subsequent assessment activities through May 1998 included the installation of 14 monitor wells. In 1998, electromagnetic (EM-34) terrain conductivity surveys were performed to identify areas of elevated soil chloride concentrations.

In June 1998, Texaco prepared a groundwater corrective action plan to mitigate chloride concentrations and to provide plume containment by extracting groundwater from the affected groundwater-bearing unit. Subsequent assessment activities performed in 1999 included the installation of wells MW-11, RW-1 and RW-2. Wells MW-12 and MW-13 were installed in 2001. Semi-annual groundwater monitoring activities have been performed by CRA since 2005 along with annual reporting to the NMOCD for this Site.

2.0 REGULATORY FRAMEWORK

2.1 NEW MEXICO OIL CONSERVATION DIVISION

The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the NMWQCC regulations. In addition, the NMWQCC regulations present the Human Health Standards for Groundwater and Other Standards for Domestic Water Supply. The constituent of concern (COC) in affected groundwater at the Site is chloride. In this report, 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

2.2 NEW MEXICO OFFICE OF THE STATE ENGINEER

The New Mexico Office of the State Engineer (NMOSE) governs water usage in the State of New Mexico. Applications for permit to appropriate groundwater were submitted by Texaco Exploration and Production, Inc. in October 1999 and were approved with specific conditions of approval June 2008. Both the applications and specific conditions of approval for CP-884 and CP-885 are provided in APPENDIX A. A total of 65 acre-feet (ac-ft) per annum from two onsite recovery wells (RW-1) and RW-2) was granted by the NMOSE for environmental remediation purposes. Usage of groundwater was granted by the NMOSE under well permits CP-884 (RW-2 - 32.5 ac-ft per annum) and CP-885 (RW-1 - 32.5 ac-ft per annum).

NMOSE Permit CP-884 and CP-884 POD2

On September 15, 2009 an Application for Permit to Change the Location of Well, RW-2 (CP-884), was submitted to the NMOSE (form wr-06) due to the compromised casing of the current well which found it to be non-functional as a recovery well. The application was approved for permit (CP-884 POD2) in correspondence dated April 22, 2010 with the condition that a Proof of Completion of Well or an Extension of Time be submitted to the NMOSE no later that April 30, 2012. The permit CP-884 POD2 supersedes the permit CP-884. Recovery well (RW-2) will be retained for monitoring uses only. The

NMOSE correspondence pertaining to the CP-884 and CP-884 POD2 permit applications and the specific conditions of approval are attached as APPENDIX B.

NMOSE Permit CP-885

On June 15, 2010 an Application for an Extension of Time in which to Perfect an Appropriation of Underground Water for permit CP-885 was submitted to the NMOSE (form wr-13). The application was requested because the well for the CP-885 was drilled but not yet equipped, and therefore needed the extension of time to fulfill the permit's original requirements. The extension was approved by the NMOSE in correspondence dated August 9, 2010 with the condition that a Proof of Completion of Well or an Extension of Time be submitted to the NMOSE no later than June 30, 2013. The NMOSE correspondence for permit CP-885 extension with specific conditions of approval and permit application are attached as APPENDIX C.

3.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater at the Site is monitored with a network of 17 monitor wells and two recovery wells in accordance with the *Work Plan for Plume Delineation and Modification to Proposed Groundwater Monitoring Schedule* (Larson & Associates, November 18, 1998). Five wells, MW-8, MW-9, MW-9A, MW-10 and MW-11 were sampled during the first semi-annual monitoring event performed in May 2010. All wells were sampled during the second semi-annual monitoring event performed in November 2010 except MW-6 in which damaged casing prevented sampling. A Site Details Map is presented as FIGURE 2. Groundwater sampling events were performed on May 5-7, 2010 and on November 8-12, 2010.

The stratification of chloride-impacted groundwater is monitored with selectively screened wells in the affected groundwater-bearing unit. Wells MW-1 through MW-5 and MW-7 through MW-13 are screened across the basal 10 to 20 feet of the groundwater-bearing unit. These wells were drilled and completed to the Chinle Formation "Red Beds" underlying the Ogallala Aquifer and are referred to as the "deep wells" in this report. Wells MW-2A, MW-4A, MW-5A and MW-9A are screened across the water table interface with approximately five feet of screen above the water table and 15 feet of screen below the water table. These wells are referenced as the "shallow wells." Wells MW-6, MW-11, RW-1 and RW-2 are screened across the entire saturated zone of the groundwater-bearing unit and are referred to as "fully penetrating" wells.

Prior to purging the monitor wells, static fluid levels were measured with an electric interface probe to the nearest hundredth of a foot and recorded. Purging was considered complete when three well volumes had been removed or the well was purged dry. Water quality 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 ALS Laboratory Group (ALS) in Houston, Texas for analysis of major cations, anions and TDS by various Environmental Protection Agency (EPA) Methods. The fluids recovered and generated during the sampling event were containerized in a dedicated polyethylene tank located onsite and subsequently managed at an NMOCD-permitted salt water disposal (SWD) facility by Nabors Well Services LTD. (Nabors).

3.1 POTENTIOMETRIC SURFACE AND GRADIENT

Groundwater elevation data are presented in TABLE I. Groundwater gradient maps for May 2010 and November 2010 are presented as FIGURES 3 and 4, respectively. Depth to

groundwater ranged from 130.43 feet to 144.39 feet below top of casing on May 5, 2010 and from 130.28 feet to 144.40 feet below top of casing on November 8, 2010. Although the Site's network of wells is completed at various intervals (shallow, deep and fully penetrating), the groundwater elevations appear to be consistent with historical levels with groundwater flow to the southeast. The gradient observed in 2010 was 0.003 feet/foot for both May and November events.

3.2 ANALYTICAL RESULTS

The 2010 analytical results generally fall within historical ranges for the two different sampling scenarios and are summarized in TABLE II. An isoconcentration map of the chloride concentrations for the May 2010 groundwater monitoring event is presented as FIGURE 5. Chloride isoconcentration maps for the shallow and deep wells for November 2010 are presented as FIGURES 6 and 7, respectively. Copies of the certified analytical reports and chain-of-custody documentation are attached in APPENDIX D.

During the May 2010 sampling event, one monitor well (MW-9A) exceeded the NMWQCC groundwater standards for chloride; two monitor wells (MW-9 & MW-11) exceeded the NMWQCC groundwater standard for fluoride; and one monitor well (MW-9A) exceeded the NMWQCC groundwater standards for TDS. No wells exceeded the NMWQCC groundwater standards for sulfate and nitrates.

During the November 2010, eleven wells (MW-1, MW-2, MW-4, MW-4A, MW-5, MW-7, MW-9A, MW-10, MW-13, RW-1 & RW-2) exceeded the NMWQCC groundwater standards for chloride; two wells (MW-1 & MW-9) exceeded the NMWQCC groundwater standard for fluoride; ten wells (MW-1, MW-2, MW-4, MW-4A, MW-5, MW-7, MW-9A, MW-13, RW-1 & RW-2) exceeded the NMWQCC groundwater standards for TDS; one well (MW-4) exceeded the NMWQCC groundwater standard for sulfate; and one well (MW-4) exceeded the NMWQCC groundwater standard for nitrate.

4.0 SUMMARY OF FINDINGS

Based on groundwater monitoring activities performed at the Site, CRA presents the following summary:

- Groundwater at the Site is monitored with a network of 17 monitor wells and two recovery wells. Five wells, MW-8, MW-9, MW-9A, MW-10 and MW-11 were sampled during the first semi-annual monitoring event in May 2010. All wells were sampled during the second semi-annual monitoring event performed in November 2010 except MW-6, in which damaged casing prevented sampling.

- Depth to groundwater ranged from 130.43 feet to 144.39 feet below top of casing on May 5, 2010 and from 130.28 feet to 144.40 feet below top of casing on November 8, 2010. Groundwater flow at the Site is to the southeast at a gradient of 0.003 feet/foot.

- The analytical results generally fall within historical ranges with higher chloride concentrations in the basal portion of the Ogallala aquifer. During the May 2010 sampling event, one monitor well (MW-9A) exceeded the NMWQCC groundwater standards for chloride; two monitor wells (MW-9 & MW-11) exceeded the NMWQCC groundwater standard for fluoride; one monitor well (MW-9A) exceeded the NMWQCC groundwater standards for TDS; and no wells exceeded the NMWQCC groundwater standards for sulfate and nitrates. During the November 2010, eleven wells (MW-1, MW-2, MW-4, MW-4A, MW-5, MW-7, MW-9A, MW-10, MW-13, RW-1 & RW-2) exceeded the NMWQCC groundwater standards for chloride; two wells (MW-1 & MW-9) exceeded the NMWQCC groundwater standard for fluoride; ten wells (MW-1, MW-2, MW-4, MW-4A, MW-5, MW-7, MW-9A, MW-13, RW-1 & RW-2) exceeded the NMWQCC groundwater standards for TDS; one well (MW-4) exceeded the NMWQCC groundwater standard for sulfate; and one well (MW-4) exceeded the NMWQCC groundwater standard for nitrate.

- The semi-annual 2011 groundwater monitoring events are scheduled for May and November 2011.

- The chloride plume appears stable with little migration since 1998.

5.0 PLANNED ACTIVITIES

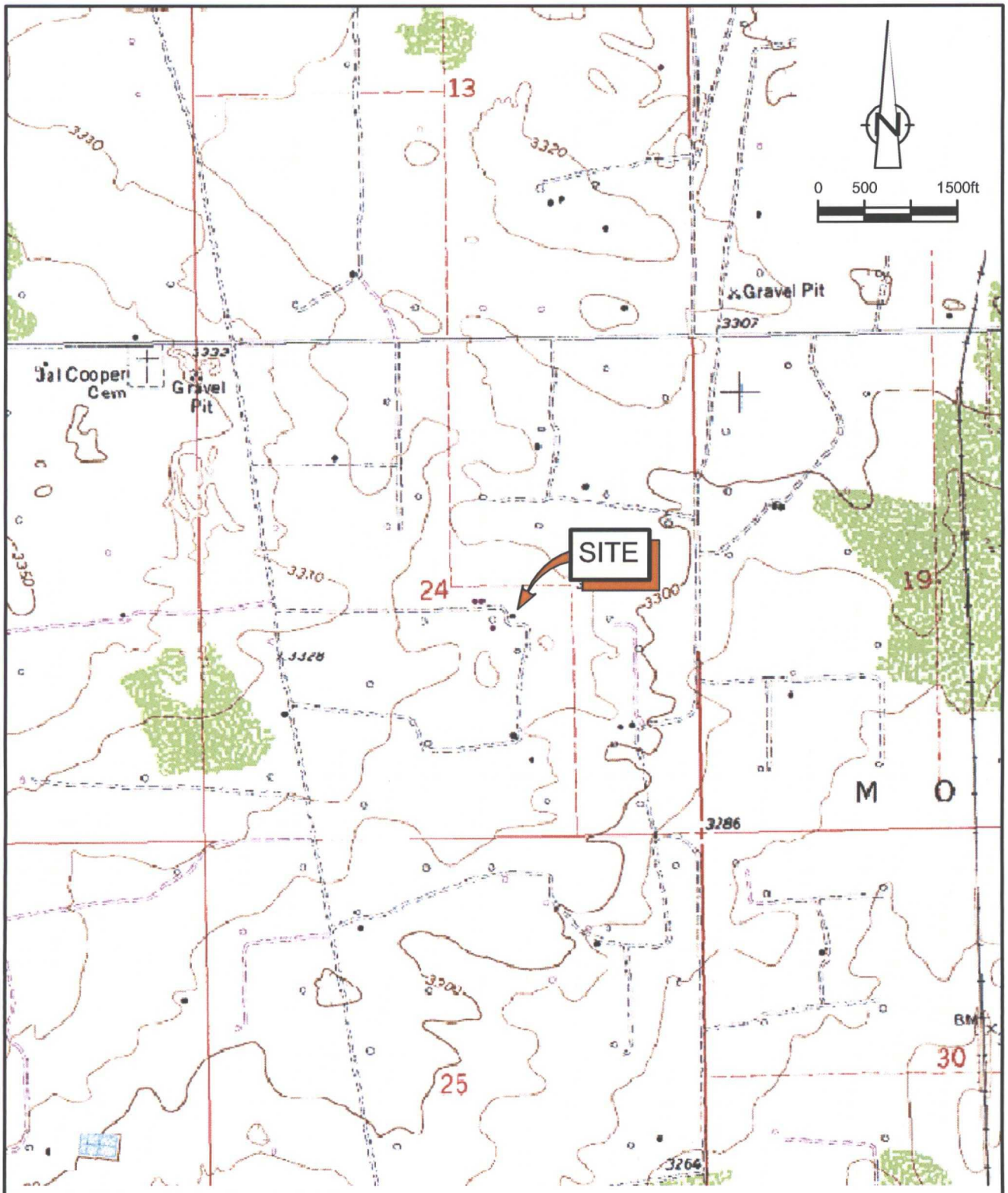
Based upon the summary and conclusions presented in this report, the following is recommended for the 2011 calendar year:

- Perform the 2011 semi-annual groundwater monitoring events that are scheduled for May and November 2011;
- Install replacement recovery wells for RW-1 and RW-2. The existing wells RW-1 and RW-2 will be retained for monitoring purposes; and
- Perform an aquifer evaluation pump test.

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

Todd Wells
Project Manager

Thomas C. Larson
Midland Office Manager



SOURCE: USGS 7.5 MINUTE QUADRANGLE;
JAL NW, NEW MEXICO (1977)

32° 12' 7.13" N, 103° 13' 4.36" W

figure 1

SITE LOCATION MAP
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

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LEGEND

- MONITOR WELL LOCATION (DEEP)
- MONITOR WELL LOCATION (SHALLOW)
- COOPER-JAL OIL WELL LOCATION
- RECOVERY WELL LOCATION (FULLY PENETRATING)
- MONITOR WELL LOCATION (FULLY PENETRATING)

BASEMAP ADAPTED FROM LARSON & ASSOCIATES, INC. (AUGUST 18, 2005).

figure 2

SITE DETAILS MAP
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

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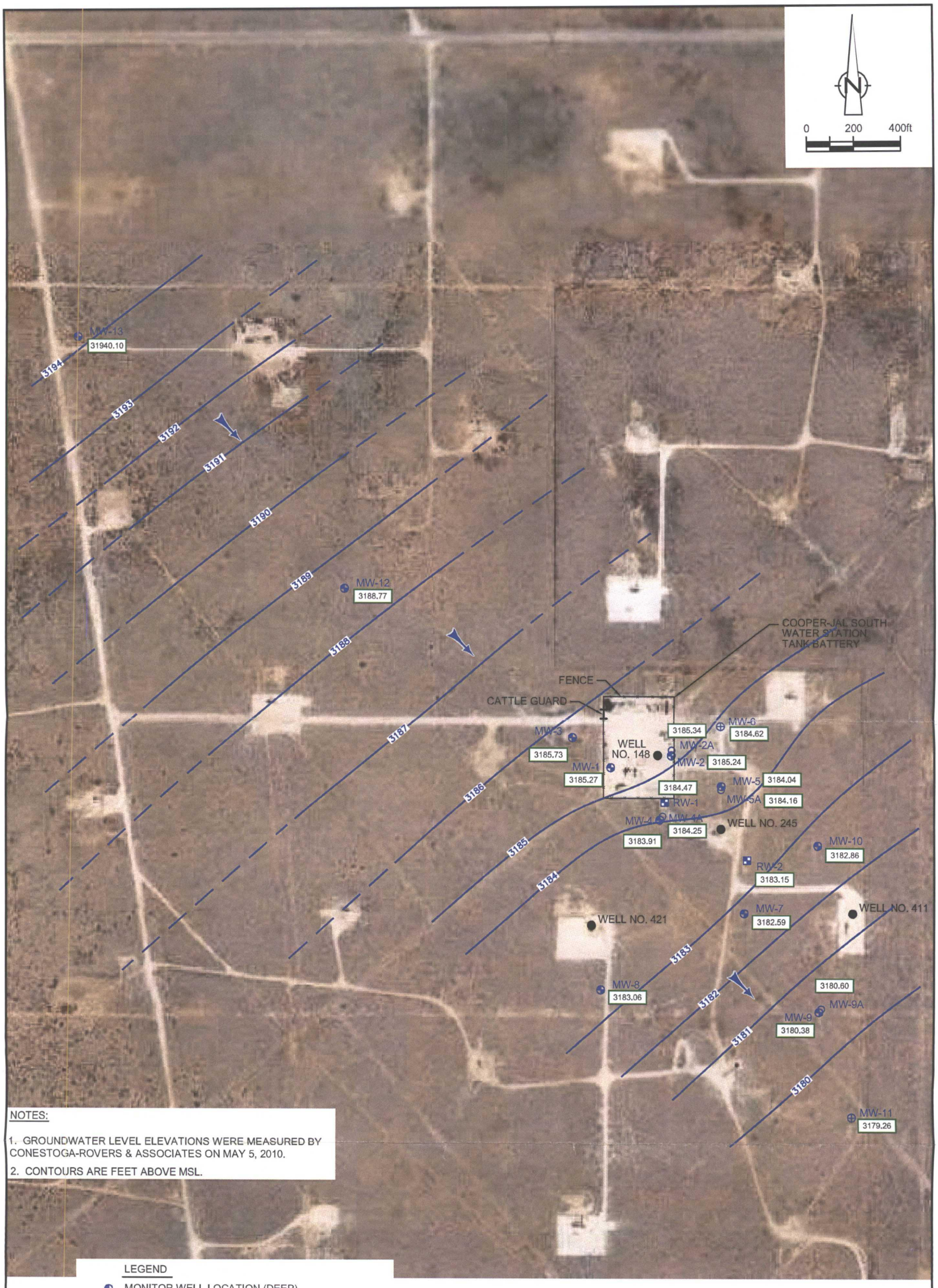

NOTES:

1. GROUNDWATER LEVEL ELEVATIONS WERE MEASURED BY CONESTOGA-ROVERS & ASSOCIATES ON MAY 5, 2010.
2. CONTOURS ARE FEET ABOVE MSL.

LEGEND

- MONITOR WELL LOCATION (DEEP)
- MONITOR WELL LOCATION (SHALLOW)
- COOPER-JAL OIL WELL LOCATION
- RECOVERY WELL LOCATION (FULLY PENETRATING)
- MONITOR WELL LOCATION (FULLY PENETRATING)
- 3183.17 GROUNDWATER LEVEL ELEVATION
- GROUNDWATER LEVEL ELEVATION CONTOUR (INTERVAL = 1 FT)
- DIRECTION OF GROUNDWATER FLOW

figure 3

GROUNDWATER GRADIENT MAP - MAY 2010
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

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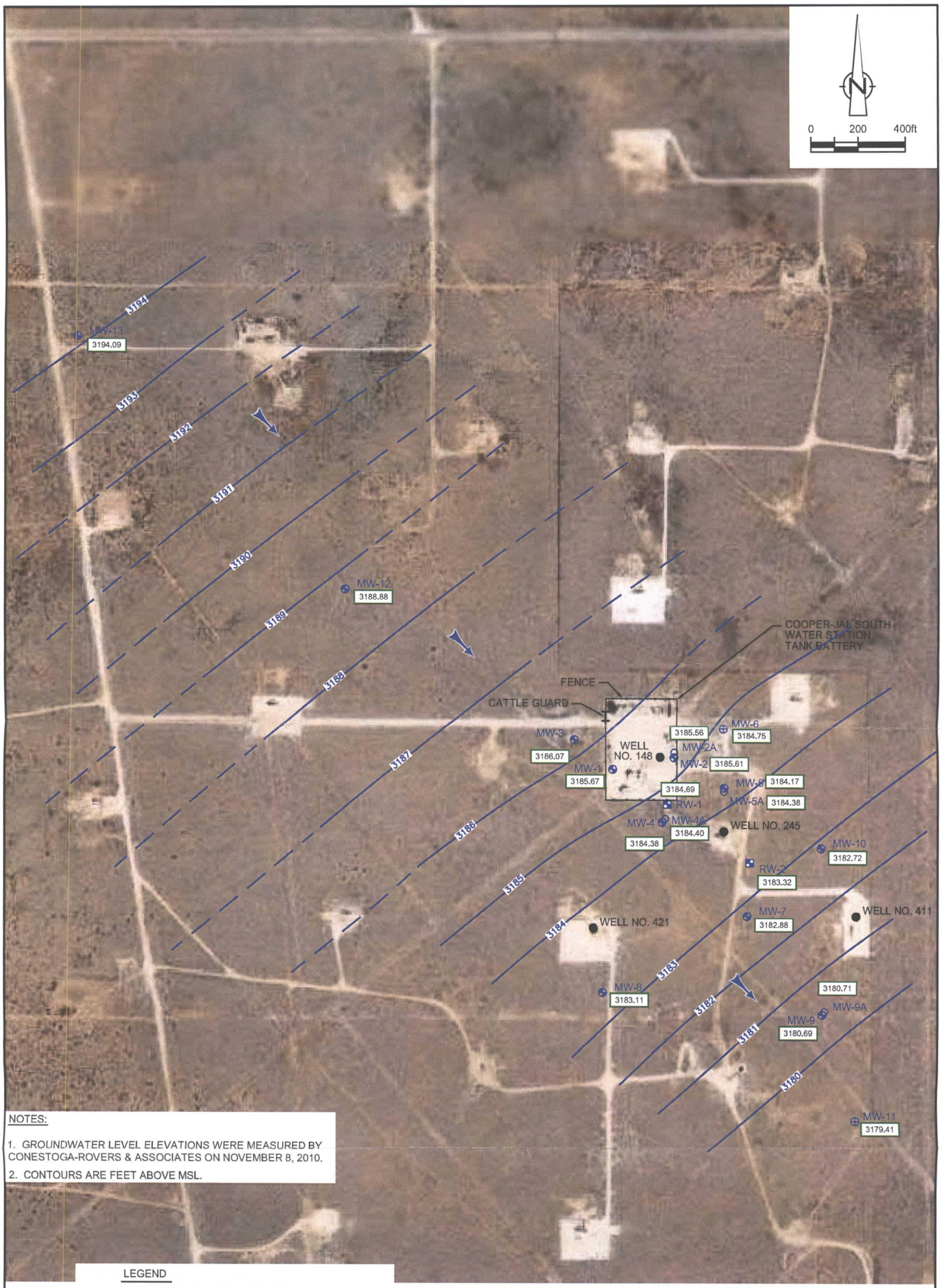

NOTES:

1. GROUNDWATER LEVEL ELEVATIONS WERE MEASURED BY CONESTOGA-ROVERS & ASSOCIATES ON NOVEMBER 8, 2010.
2. CONTOURS ARE FEET ABOVE MSL.

LEGEND

- MONITOR WELL LOCATION (DEEP)
- MONITOR WELL LOCATION (SHALLOW)
- COOPER-JAL OIL WELL LOCATION
- RECOVERY WELL LOCATION (FULLY PENETRATING)
- MONITOR WELL LOCATION (FULLY PENETRATING)
- 3179.29 GROUNDWATER LEVEL ELEVATION
- GROUNDWATER LEVEL ELEVATION CONTOUR (INTERVAL = 1 FT)
- DIRECTION OF GROUNDWATER FLOW

figure 4

GROUNDWATER GRADIENT MAP - NOVEMBER 2010
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

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NOTES:

1. GROUNDWATER SAMPLES WERE COLLECTED ON MAY 7, 2010.
2. CHLORIDE ANALYSIS BY EPA METHOD 300.0
3. INCLUDES SHALLOW, DEEP, AND FULLY PENETRATING/ SCREENED WELLS (5 TOTAL).

LEGEND

- MONITOR WELL LOCATION (DEEP)
- MONITOR WELL LOCATION (SHALLOW)
- COOPER-JAL OIL WELL LOCATION
- RECOVERY WELL LOCATION (FULLY PENETRATING)
- MONITOR WELL LOCATION (FULLY PENETRATING)
- 39 CHLORIDE CONCENTRATION (MG/L)
- CHLORIDE CONCENTRATION CONTOUR (INTERVAL = 250 MG/L)

figure 5

CHLORIDE ISOCONCENTRATION MAP - MAY 2010
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

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figure 6

SHALLOW GROUNDWATER CHLORIDE ISOCONCENTRATION MAP - NOVEMBER 2010
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

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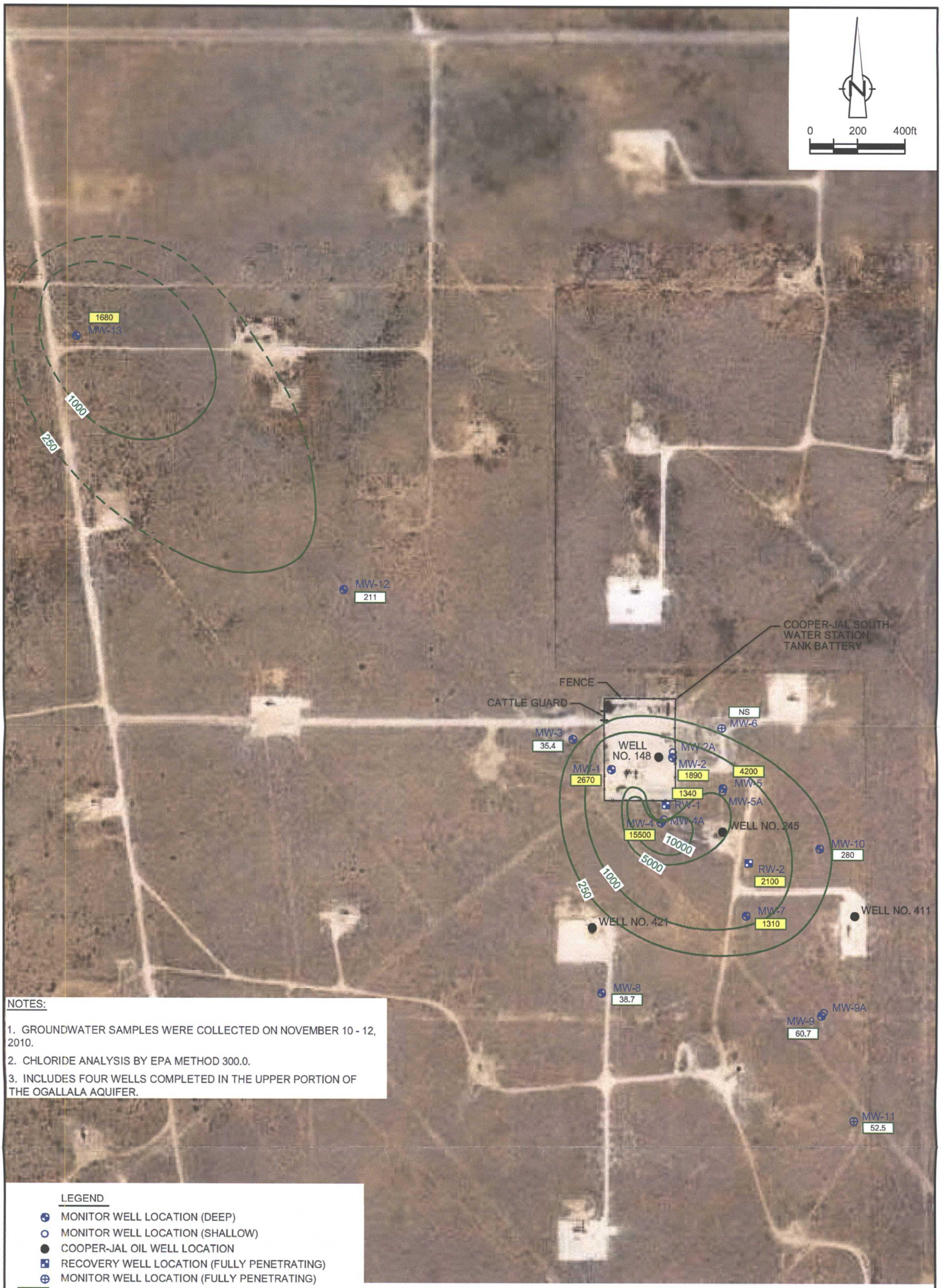

NOTES:

1. GROUNDWATER SAMPLES WERE COLLECTED ON NOVEMBER 10 - 12, 2010.
2. CHLORIDE ANALYSIS BY EPA METHOD 300.0.
3. INCLUDES FOUR WELLS COMPLETED IN THE UPPER PORTION OF THE OGALLALA AQUIFER.

LEGEND

- MONITOR WELL LOCATION (DEEP)
- MONITOR WELL LOCATION (SHALLOW)
- COOPER-JAL OIL WELL LOCATION
- RECOVERY WELL LOCATION (FULLY PENETRATING)
- MONITOR WELL LOCATION (FULLY PENETRATING)
- 41 CHLORIDE CONCENTRATION (MG/L)
- CHLORIDE CONCENTRATION CONTOUR (INTERVAL = VARIABLE MG/L)

figure 7

DEEP GROUNDWATER CHLORIDE ISOCONCENTRATION MAP - NOVEMBER 2010
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

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TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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	05/18/98	135.05	2	3185.12	172.38	153-173
3320.17	05/25/99	134.93	—	3185.24	—	—
	02/08/01	134.80	—	3185.37	—	—
	05/10/02	134.77	—	3185.40	—	—
	10/22/02	134.89	—	3185.28	—	—
	05/20/03	135.17	—	3185.00	—	—
	11/24/03	134.70	—	3185.47	—	—
	05/11/04	134.75	—	3185.42	—	—
	11/15/04	134.76	—	3185.41	—	—
	05/17/05	134.29	—	3185.88	—	—
	11/15/05	134.93	—	3185.24	—	—
	05/08/06	134.68	—	3185.49	—	—
	11/13/06	134.62	—	3185.55	—	—
	05/29/07	134.71	—	3185.46	—	—
	11/16/07	134.70	—	3185.47	—	—
	05/14/08	134.73	—	3185.44	—	—
	11/03/08	134.69	—	3185.48	—	—
	05/19/09	134.64	—	3185.53	—	—
	11/02/09	134.71	—	3185.46	—	—
	05/05/10	134.90	—	3185.27	172.2	—
	11/08/10	134.50	—	3185.67	172.2	—
MW-2	05/18/98	135.00	2	3184.86	170.60	163-173
3319.86	05/25/99	134.79	—	3185.07	—	—
	02/08/01	134.63	—	3185.23	—	—
	05/10/02	134.65	—	3185.21	—	—
	10/22/02	134.72	—	3185.14	—	—
	05/20/03	134.95	—	3184.91	—	—
	11/24/03	134.56	—	3185.30	—	—
	05/11/04	134.55	—	3185.31	—	—
	11/15/04	134.53	—	3185.33	—	—
	05/17/05	134.39	—	3185.47	—	—
	11/15/05	134.77	—	3185.09	—	—
	05/08/06	134.52	—	3185.34	—	—
	11/13/06	134.44	—	3185.42	—	—
	05/29/07	134.54	—	3185.32	—	—
	11/14/07	134.52	—	3185.34	—	—
	05/14/08	134.53	—	3185.33	—	—
	11/03/08	134.44	—	3185.42	—	—
	05/19/09	134.46	—	3185.40	—	—
	11/16/09	134.51	—	3185.35	—	—
	05/05/10	134.62	—	3185.24	170.5	—
	11/08/10	134.25	—	3185.61	170.5	—
MW-2A	05/18/98	134.80	2	3185.06	142.30	130-145
3319.86	05/25/99	134.73	—	3185.13	—	—
	02/08/01	134.58	—	3185.28	—	—
	05/10/02	134.50	—	3185.36	—	—
	10/22/02	134.66	—	3185.20	—	—
	05/20/03	135.80	—	3184.06	—	—
	11/24/03	134.60	—	3185.26	—	—
	05/11/04	134.53	—	3185.33	—	—
	11/15/04	134.58	—	3185.28	—	—
	05/17/05	134.47	—	3185.39	—	—
	11/15/05	134.74	—	3185.12	—	—
	05/08/06	134.46	—	3185.40	—	—
	11/13/06	134.39	—	3185.47	—	—
	05/29/07	134.50	—	3185.36	—	—
	11/14/07	134.48	—	3185.38	—	—
	05/14/08	134.49	—	3185.37	—	—
	11/03/08	134.46	—	3185.40	—	—
	05/19/09	134.42	—	3185.44	—	—
	11/02/09	134.45	—	3185.41	—	—
	05/05/10	134.52	—	3185.34	142.19	—
	11/08/10	134.30	—	3185.56	142.19	—

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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-3	05/18/98	132.65	2	3185.56	171.93	161-171
3318.21	05/25/99	132.52	---	3185.69	---	---
	02/08/01	132.40	---	3185.81	---	---
	05/10/02	132.40	---	3185.81	---	---
	10/22/02	132.49	---	3185.72	---	---
	05/20/03	132.75	---	3185.46	---	---
	11/24/03	132.29	---	3185.92	---	---
	05/11/04	132.38	---	3185.83	---	---
	11/15/04	132.46	---	3185.75	---	---
	05/17/05	132.32	---	3185.89	---	---
	11/15/05	132.55	---	3185.66	---	---
	05/08/06	132.32	---	3185.89	---	---
	11/13/06	132.27	---	3185.94	---	---
	05/29/07	132.36	---	3185.85	---	---
	11/16/07	132.34	---	3185.87	---	---
	05/14/08	132.36	---	3185.85	---	---
	11/03/08	132.31	---	3185.90	---	---
	05/19/09	132.25	---	3185.96	---	---
	11/02/09	132.37	---	3185.84	---	---
	05/05/10	132.48	---	3185.73	171.93	---
	11/08/10	132.14	---	3186.07	171.93	---
MW-4	05/18/98	136.01	2	3183.73	171.41	161-171
3319.74	05/25/99	135.57	---	3184.17	---	---
	02/08/01	135.87	---	3183.87	---	---
	05/10/02	135.67	---	3184.07	---	---
	10/22/02	135.90	---	3183.84	---	---
	05/20/03	136.00	---	3183.74	---	---
	11/24/03	135.70	---	3184.04	---	---
	05/11/04	135.34	---	3184.40	---	---
	11/15/04	135.76	---	3183.98	---	---
	05/17/05	135.69	---	3184.05	---	---
	11/15/05	135.85	---	3183.89	---	---
	05/08/06	135.60	---	3184.14	---	---
	11/13/06	135.59	---	3184.15	---	---
	05/29/07	135.75	---	3183.99	---	---
	11/14/07	135.62	---	3184.12	---	---
	05/14/08	135.76	---	3183.98	---	---
	11/03/08	135.66	---	3184.08	---	---
	05/19/09	135.67	---	3184.07	---	---
	11/02/09	135.68	---	3184.06	---	---
	05/05/10	135.83	---	3183.91	171.56	---
	11/08/10	135.36	---	3184.38	171.56	---
MW-4A	05/18/98	135.68	2	3183.90	146.00	128-143
3319.58	05/21/99	135.65	---	3183.93	---	---
	05/25/99	135.90	---	3183.68	---	---
	02/08/01	135.34	---	3184.24	---	---
	05/10/02	135.30	---	3184.28	---	---
	10/22/02	135.51	---	3184.07	---	---
	05/20/03	135.55	---	3184.03	---	---
	11/24/03	135.31	---	3184.27	---	---
	05/11/04	135.72	---	3183.86	---	---
	11/15/04	135.38	---	3184.20	---	---
	05/17/05	135.32	---	3184.26	---	---
	11/15/05	135.52	---	3184.06	---	---
	05/08/06	135.26	---	3184.32	---	---
	11/13/06	135.20	---	3184.38	---	---
	05/29/07	135.32	---	3184.26	---	---
	11/14/07	135.20	---	3184.38	---	---
	05/14/08	135.31	---	3184.27	---	---
	11/03/08	135.27	---	3184.31	---	---
	05/19/09	135.25	---	3184.33	---	---
	11/02/09	135.25	---	3184.33	---	---
	05/05/10	135.33	---	3184.25	145.95	---
	11/08/10	135.18	---	3184.40	145.95	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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-5	05/18/98	137.42	2	3183.68	173.65	161-171
3321.10	05/25/99	137.28	---	3183.82	---	---
	02/08/01	137.18	---	3183.92	---	---
	05/10/02	137.10	---	3184.00	---	---
	10/22/02	137.04	---	3184.06	---	---
	05/20/03	137.45	---	3183.65	---	---
	11/24/03	137.01	---	3184.09	---	---
	05/11/04	137.01	---	3184.09	---	---
	11/15/04	137.08	---	3184.02	---	---
	05/17/05	137.00	---	3184.10	---	---
	11/15/05	137.18	---	3183.92	---	---
	05/08/06	136.90	---	3184.20	---	---
	11/13/06	136.81	---	3184.29	---	---
	05/29/07	136.92	---	3184.18	---	---
	11/14/07	136.85	---	3184.25	---	---
	05/14/08	136.97	---	3184.13	---	---
	11/03/08	136.89	---	3184.21	---	---
	05/19/09	136.90	---	3184.20	---	---
	11/02/09	136.90	---	3184.20	---	---
	05/05/10	137.02	---	3184.08	173.6	---
	11/08/10	136.93	---	3184.17	173.6	---
MW-5A	05/18/98	137.20	2	3183.87	143.85	126-141
3321.07	05/25/99	137.11	---	3183.96	---	---
	02/08/01	136.99	---	3184.08	---	---
	05/10/02	136.90	---	3184.17	---	---
	10/22/02	137.17	---	3183.90	---	---
	05/20/03	137.24	---	3183.83	---	---
	11/24/03	136.91	---	3184.16	---	---
	05/11/04	136.88	---	3184.19	---	---
	11/15/04	136.92	---	3184.15	---	---
	05/17/05	136.83	---	3184.24	---	---
	11/15/05	137.06	---	3184.01	---	---
	05/08/06	136.80	---	3184.27	---	---
	11/13/06	136.74	---	3184.33	---	---
	05/29/07	136.82	---	3184.25	---	---
	11/14/07	136.88	---	3184.19	---	---
	05/14/08	136.83	---	3184.24	---	---
	11/03/08	136.81	---	3184.26	---	---
	05/19/09	136.78	---	3184.29	---	---
	11/02/09	136.80	---	3184.27	---	---
	05/05/10	136.91	---	3184.16	143.9	---
	11/08/10	136.69	---	3184.38	143.9	---
MW-6	05/18/98	136.73	2	3184.42	169.25	120-170
3321.15	05/25/99	136.61	---	3184.54	---	---
	02/08/01	136.50	---	3184.65	---	---
	05/10/02	136.40	---	3184.75	---	---
	10/22/02	136.57	---	3184.58	---	---
	05/20/03	136.85	---	3184.30	---	---
	11/24/03	136.38	---	3184.77	---	---
	05/11/04	136.41	---	3184.74	---	---
	11/15/04	136.08	---	3185.07	---	---
	05/17/05	136.58	---	3184.57	---	---
	11/15/05	136.82	---	3184.33	---	---
	05/08/06	136.58	---	3184.57	---	---
	11/13/06	136.49	---	3184.66	---	---
	05/29/07	136.61	---	3184.54	---	---
	11/15/07	136.59	---	3184.56	---	---
	05/14/08	136.58	---	3184.57	---	---
	11/03/08	136.52	---	3184.63	---	---
	05/19/09	136.52	---	3184.63	---	---
	11/02/09	136.51	---	3184.64	---	---
	05/05/10	136.53	---	3184.62	168.97	---
	11/08/10	136.4	---	3184.75	168.97	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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	05/18/98	136.19	2	3182.20	166.15	151-166
3318.39	05/25/99	135.98	---	3182.41	---	---
	02/08/01	135.87	---	3182.52	---	---
	05/10/02	135.67	---	3182.72	---	---
	10/22/02	135.89	---	3182.50	---	---
	05/20/03	136.12	---	3182.27	---	---
	11/24/03	135.71	---	3182.68	---	---
	05/11/04	135.74	---	3182.65	---	---
	11/15/04	135.78	---	3182.61	---	---
	05/17/05	135.68	---	3182.71	---	---
	11/15/05	135.90	---	3182.49	---	---
	05/08/06	135.64	---	3182.75	---	---
	11/13/06	135.58	---	3182.81	---	---
	05/29/07	135.73	---	3182.66	---	---
	11/15/07	135.64	---	3182.75	---	---
	05/14/08	135.68	---	3182.71	---	---
	11/03/08	135.66	---	3182.73	---	---
	05/19/09	135.63	---	3182.76	---	---
	11/02/09	135.65	---	3182.74	---	---
	05/05/10	135.80	---	3182.59	165.9	---
	11/08/10	135.51	---	3182.88	165.9	---
MW-8	05/18/98	134.36	2	3182.78	171.92	155-170
3317.14	05/25/99	134.21	---	3182.93	---	---
	02/08/01	134.08	---	3183.06	---	---
	05/10/02	133.95	---	3183.19	---	---
	10/22/02	134.18	---	3182.96	---	---
	05/20/03	134.38	---	3182.76	---	---
	11/24/03	133.99	---	3183.15	---	---
	05/11/04	134.02	---	3183.12	---	---
	11/15/04	134.11	---	3183.03	---	---
	05/17/05	133.97	---	3183.17	---	---
	11/15/05	134.21	---	3182.93	---	---
	05/08/06	133.94	---	3183.20	---	---
	11/13/06	133.9	---	3183.24	---	---
	05/29/07	134.02	---	3183.12	---	---
	11/15/07	133.76	---	3183.38	---	---
	05/15/08	133.98	---	3183.16	---	---
	11/03/08	134.01	---	3183.13	---	---
	05/19/09	133.97	---	3183.17	---	---
	11/02/09	134.00	---	3183.14	---	---
	05/05/10	134.08	---	3183.06	171.94	---
	11/08/10	134.03	---	3183.11	171.94	---
MW-9	05/18/98	132.89	2	3179.90	161.40	149-164
3312.79	05/25/99	132.68	---	3180.11	---	---
	02/08/01	132.52	---	3180.27	---	---
	05/10/02	137.20	---	3175.59	---	---
	10/22/02	132.56	---	3180.23	---	---
	05/20/03	132.75	---	3180.04	---	---
	11/24/03	132.35	---	3180.44	---	---
	05/11/04	132.39	---	3180.40	---	---
	11/15/04	132.43	---	3180.36	---	---
	05/17/05	132.26	---	3180.53	---	---
	11/15/05	132.60	---	3180.19	---	---
	05/08/06	132.26	---	3180.53	---	---
	11/13/06	132.19	---	3180.60	---	---
	05/29/07	132.32	---	3180.47	---	---
	11/14/07	132.34	---	3180.45	---	---
	05/15/08	132.29	---	3180.50	---	---
	11/03/08	132.33	---	3180.46	---	---
	05/19/09	132.21	---	3180.58	---	---
	11/02/09	132.35	---	3180.44	---	---
	05/05/10	132.41	---	3180.38	161.32	---
	11/08/10	132.10	---	3180.69	161.32	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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-9A	05/18/98	132.65	2	3179.91	144.15	127-142
3312.56	05/25/99	132.43	---	3180.13	---	---
	02/08/01	132.37	---	3180.19	---	---
	05/10/02	137.20	---	3175.36	---	---
	10/22/02	132.35	---	3180.21	---	---
	05/20/03	132.55	---	3180.01	---	---
	11/24/03	132.10	---	3180.46	---	---
	05/11/04	132.14	---	3180.42	---	---
	11/15/04	132.19	---	3180.37	---	---
	05/17/05	132.06	---	3180.50	---	---
	11/15/05	132.35	---	3180.21	---	---
	05/08/06	132.02	---	3180.54	---	---
	11/13/06	131.09	---	3181.47	---	---
	05/29/07	132.08	---	3180.48	---	---
	11/14/07	132.06	---	3180.50	---	---
	05/15/08	132.03	---	3180.53	---	---
	11/03/08	131.98	---	3180.58	---	---
	05/19/09	132.00	---	3180.56	---	---
	11/02/09	131.90	---	3180.66	---	---
	05/05/10	131.96	---	3180.60	143.85	---
	11/08/10	131.85	---	3180.71	143.85	---
MW-10	05/18/98	137.18	2	3182.12	164.15	151-166
3319.30	05/25/99	137.04	---	3182.26	---	---
	02/08/01	136.88	---	3182.42	---	---
	05/10/02	136.80	---	3182.50	---	---
	10/22/02	136.91	---	3182.39	---	---
	05/20/03	137.13	---	3182.17	---	---
	11/24/03	136.71	---	3182.59	---	---
	05/11/04	136.77	---	3182.53	---	---
	11/15/04	136.82	---	3182.48	---	---
	05/17/05	136.34	---	3182.96	---	---
	11/15/05	136.95	---	3182.35	---	---
	05/08/06	136.65	---	3182.65	---	---
	11/13/06	136.59	---	3182.71	---	---
	05/29/07	136.68	---	3182.62	---	---
	11/15/07	136.61	---	3182.69	---	---
	05/15/08	136.65	---	3182.65	---	---
	11/03/08	136.60	---	3182.70	---	---
	05/19/09	136.60	---	3182.70	---	---
	11/02/09	136.60	---	3182.70	---	---
	05/05/10	136.44	---	3182.86	163.98	---
	11/08/10	136.58	---	3182.72	163.98	---
MW-11	03/23/99	131.12	4	3178.57	165.71	125-165
3309.69	05/25/99	130.91	---	3178.78	---	---
	02/08/01	130.11	---	3179.58	---	---
	05/10/02	135.60	---	3174.09	---	---
	10/22/02	130.76	---	3178.93	---	---
	05/20/03	131.03	---	3178.66	---	---
	11/24/03	130.57	---	3179.12	---	---
	05/11/04	130.61	---	3179.08	---	---
	11/15/04	130.65	---	3179.04	---	---
	05/17/05	131.56	---	3178.13	---	---
	11/15/05	130.70	---	3178.99	---	---
	05/08/06	130.41	---	3179.28	---	---
	11/13/06	130.42	---	3179.27	---	---
	05/29/07	130.52	---	3179.17	---	---
	11/14/07	130.42	---	3179.27	---	---
	05/15/08	130.46	---	3179.23	---	---
	11/03/08	130.41	---	3179.28	---	---
	05/19/09	130.40	---	3179.29	---	---
	11/02/09	130.40	---	3179.29	---	---
	05/05/10	130.43	---	3179.26	165.75	---
	11/08/10	130.28	---	3179.41	165.75	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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-12	05/10/02	139.57	2	3188.86	165.50	156.68-171.65
3328.43	10/22/02	139.73	---	3188.70	---	---
	05/20/03	139.72	---	3188.71	---	---
	11/24/03	139.69	---	3188.74	---	---
	05/11/04	139.64	---	3188.79	---	---
	11/15/04	139.68	---	3188.75	---	---
	05/17/05	139.58	---	3188.85	---	---
	11/15/05	139.83	---	3188.60	---	---
	05/08/06	139.55	---	3188.88	---	---
	11/13/06	139.53	---	3188.90	---	---
	05/29/07	139.65	---	3188.78	---	---
	11/16/07	139.05	---	3189.38	---	---
	05/14/08	139.69	---	3188.74	---	---
	11/03/08	139.61	---	3188.82	---	---
	05/19/09	139.59	---	3188.84	---	---
	11/02/09	139.62	---	3188.81	---	---
	05/05/10	139.66	---	3188.77	165.85	---
	11/08/10	139.55	---	3188.88	165.85	---
MW-13	05/10/02	144.45	2	3194.04	167.40	156.68-171.65
3338.49	10/22/02	144.49	---	3194.00	---	---
	05/20/03	144.9	---	3193.59	---	---
	11/24/03	144.37	---	3194.12	---	---
	05/11/04	144.47	---	3194.02	---	---
	11/15/04	144.56	---	3193.93	---	---
	05/17/05	144.36	---	3194.13	---	---
	11/15/05	144.60	---	3193.89	---	---
	05/08/06	144.29	---	3194.20	---	---
	11/13/06	144.38	---	3194.11	---	---
	05/29/07	144.54	---	3193.95	---	---
	11/16/07	144.54	---	3193.95	---	---
	05/14/08	144.45	---	3194.04	---	---
	11/03/08	144.36	---	3194.13	---	---
	05/19/09	144.51	---	3193.98	---	---
	11/02/09	144.35	---	3194.14	---	---
	05/05/10	144.39	---	3194.10	166.41	---
	11/08/10	144.40	---	3194.09	166.41	---
RW-1	05/21/99	134.32	5	3184.18	171.25	130.41-174.37
3318.50	05/25/99	134.24	---	3184.26	---	---
	02/08/01	134.15	---	3184.35	---	---
	05/10/02	134.00	---	3184.50	---	---
	10/22/02	134.17	---	3184.33	---	---
	05/20/03	134.40	---	3184.10	---	---
	11/24/03	134.02	---	3184.48	---	---
	05/11/04	134.01	---	3184.49	---	---
	11/15/04	134.06	---	3184.44	---	---
	05/17/05	133.97	---	3184.53	---	---
	11/15/05	134.20	---	3184.30	---	---
	05/08/06	133.93	---	3184.57	---	---
	11/13/06	133.92	---	3184.58	---	---
	05/29/07	134.00	---	3184.50	---	---
	11/15/07	133.88	---	3184.62	---	---
	05/14/08	133.98	---	3184.52	---	---
	11/03/08	133.99	---	3184.51	---	---
	05/19/09	133.92	---	3184.58	---	---
	11/02/09	134.00	---	3184.50	---	---
	05/05/10	134.03	---	3184.47	161.7	---
	11/08/10	133.81	---	3184.69	161.7	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
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)
RW-2	02/08/01	135.58	5	3183.04	154.63	134.22-172.73
3318.62	05/10/02	135.55	---	3183.07	---	---
	10/22/02	135.55	---	3183.07	---	---
	05/20/03	135.58	---	3183.04	---	---
	11/24/03	135.54	---	3183.08	---	---
	05/11/04	135.48	---	3183.14	---	---
	11/15/04	135.43	---	3183.19	---	---
	05/17/05	135.46	---	3183.16	---	---
	11/15/05	135.65	---	3182.97	---	---
	05/08/06	135.42	---	3183.20	---	---
	11/13/06	135.47	---	3183.15	---	---
	05/29/07	135.54	---	3183.08	---	---
	11/15/07	135.48	---	3183.14	---	---
	05/14/08	135.48	---	3183.14	---	---
	11/03/08	135.44	---	3183.18	---	---
	05/19/09	135.44	---	3183.18	---	---
	11/02/09	135.45	---	3183.17	---	---
	05/05/10	135.47	---	3183.15	154.71	---
	11/08/10	135.3	---	3183.32	154.71	---

Notes:

1. TOC - Top of Casing.
2. bgs - below ground surface.
3. A - Indicates shallow groundwater monitor well.

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - N[1]	Sulfate[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-1	9/16/97	--	--	280	8,500	--	--	1,100	520.0	630.0	50.00	4,300.0	15,000
	2/25/98	--	--	280	5,600	--	--	570	285.0	520.0	116.00	2,900.0	9,300
	2/14/01	<1.0	306	306	11,000	4.40	7.70	1,000	374.0	780.0	236.00	5,236.0	20,000
	5/17/02	<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
	5/21/03	<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
	5/12/04	<1.00	264	264	504	7.31	2.70	136	17.2	23.1	22.40	355.0	1,328
	11/16/04	<1.00	232	232	384	4.94	3.30	103	29.2	22.7	25.40	373.0	952
	11/16/05	<10.0	262	262	1,210 D1	3.0	2.4	215 D1	85.400	92.600	23.000	847.000	2,640 N
	11/14/06	<10	200	200	96	4.2	2.0	76	13.200	6.490	15.600	172.000	624
	11/16/07	<10.0	255	255	4,250 D1	3.7	3.90 D1	602 D1	154.000	187.000	54.000	2100.000 D1	10,900
	11/4/08	<5.0	190	190	110	6.3	1.6	83	10	5.8	7.9	180	590
	11/3/09	<10	270	270	4,100	4.1	2.8	640	190	250	61	2300	8,000
	11/10/10	<10	223	223	2,670	1.92	2.62	373	138	196	21.5	1480	5,020
MW-2	2/25/98	--	--	210	5,900	--	--	760	840.0	380.0	30.00	2,650.0	9,400
	4/9/98	--	--	290	8,200	--	--	990	1,100.0	490.0	29.00	3,430.0	15,000
	2/14/01	<1.0	184	184	7,400	2.30	4.10	870	1,025.0	488.0	48.50	3,189.0	15,000
	5/17/02	<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
	5/22/03	<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
	5/12/04	<1.00	146	146	1,750	<2.00	2.78	246	308.0	112.0	29.70	549.0	3,965
	11/16/04	<1.00	120	120	430	<1.00	2.13	56.9	104.0	29.4	22.40	158.0	832
	11/16/05	<10.0	171	171	4,720 D1	0.72	2.6	645 D1	594.000	209.000	20.800	3,290.000	10,000 N
	11/14/06	<10	160	160	3,500	0.78 N	2.1	470	535.000	212.000	21.000	1,5400.000	8,260
	11/14/07	<10.0	178	178	3,280 D1	0.76	1.93	462 D1	449.000	152.000	16.200	1310.000 D1	9,110
	11/4/08	<5.0	150	150	2,900	<1.0	1.1	430	380	160	26	1,200	5,600
	11/16/09	<10	150	150	2,000	1.1	1.6	340	290	120	20	750	4,300
	11/12/10	<10	186	186	1,890	0.726	1.86	327	326	120	9.80	795	3680
MW-2A	2/26/98	--	--	190	280	--	--	330	144.0	36.0	5.70	215.0	1,200
	2/14/01	<1.0	162	162	44	1.30	2.30	76	64.4	16.7	7.02	45.5	390
	5/15/02	<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
	5/22/03	<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
	5/12/04	<1.00	176	176	44.8	<1.00	2.24	76.5	62.9	15.0	3.66	43.6	440
	11/16/04	<1.00	164	164	52.5	1.22	2.78	75.4	68.8	15.3	3.98	49.1	428
	11/16/05	<10.0	151	151	56.8	0.60	2.3	75.1 D1	157.000	18.000	4.200	49.800	630 N
	11/14/06	<10	180	180	49	0.55	1.6	76	69.800	15.600	3.470	49.900	488
	11/14/07	<10.0	170	170	74.6	0.58	1.51	66.8 D1	666.00	15.300	<5.000	45.400	504
	11/4/08	<5.0	220	220	68	0.49	1.4	74	67	15	3.2	42	470
	11/3/09	<10	230	230	62	0.59	1.6	81	66	15	3.4	50	480
	11/11/10	<10	158	158	86.1	0.453	1.73	74.0	53.9	14.9	2.86	42.8	474
MW-3	2/27/98	--	--	190	452	--	--	406	200.0	50.0	11.00	237.0	1,500
	2/14/01	<1.0	158	158	34	1.60	2.40	100	54.5	19.0	7.61	48.6	440
	5/17/02	<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
	5/22/03	<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
	5/12/04	<1.00	164	164	32.3	1.20	2.38	101	52.2	16.8	4.77	47.5	448
	11/16/04	<1.00	166	166	35.1	1.53	2.77	95.4	56.3	23.6	12.70	58.9	424
	11/17/05	<10.0	171	171	96.3	0.97	2.2	108 D1	89.200	22.100	8.870	93.400	840 N
	11/15/06	<10	170	170	30	0.92 N	1.7	96	51.300	17.300	4.300	57.200	505
	11/16/07	<10.0	170	170	39.7	0.93	1.58	88.2 D1	50.800	16.300	<5.000	50.600	570
	11/6/08	<5.0	150	150	36	1.1	1.4	97	50	17	4.0	48	430
	11/3/09	<10	160	160	35	1.1	1.6	110	49	17	4.2	56	410
	11/10/10	<10	164	164	35.4	0.836	1.77	99.9	48.8	15.2	3.42	45.1	380
MW-4	2/27/98	--	--	230	12,000	--	--	1,300	1,700.0	880.0	48.00	5,300.0	22,000
	4/9/98	--	--	240	13,000	--	--	1,500	1,740.0	840.0	42.00	5,400.0	23,000
	2/14/01	<1.0	232	232	15,000	1.80	6.80	1,500	--	--	--	--	29,000
	5/17/02	<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
	5/22/03	<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
	5/11/04	<1.00	214	214	14,200	<8.00	8.97	1,560	1800.0	829.0	60.70	4,850.0	65,450
	11/17/04	<1.00	222	222	13,600	<20.00	31.50	1,410	2020.0	972.0	73.60	5,900.0	25,200

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - N[1]	Sulfate[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-4	11/17/05	<10.0	181	181	9,440 D1	0.82	0.20	45.8 D1	849.000	387.000	28.100	3,880.000	24,300 N
(Cont.)	11/15/06	<10	260	260	14,000	<5.0 C	5.2	1,400	1,760.000	897.000	58.800	6,150.000	28,700
	11/14/07	<10.0	255	255	14,800 D1	0.54	7.15 D1	1,410 D1	1170.000	382.000	48.000	4760.000 D1	36,300
	11/12/08	<5.0	200	200	12,000	1.2	0.33	1,300	1,500	840	82	4,800	22,000
	11/4/09	<5.0	250	250	15,000	1.1	5.3	1,600	1,500	1,000	65	5,800	30,000
	11/11/10	<5.0	294	294	15500	<1.00	10.2	1270	1380	904	40.4	5450	25500
MW-4A	2/27/98	--	--	180	1,600	--	--	410	470.0	130.0	11.00	620.0	3,300
	2/14/01	<1.0	154	154	1,600	1.40	2.80	210	--	--	--	--	4,000
	5/15/02	<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
	5/22/03	<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
	5/11/04	<1.00	156	156	984	<2.00	3.30	179	297.0	66.5	11.50	279.0	2,300
	11/17/04	<1.00	164	164	1,110	<2.00	4.62	186	369.0	75.4	14.90	413.0	2,235
	11/16/05	<10.0	181	181	827 D1	<0.5	2.2	160 D1	335.000	64.400	9.230	382.000	2,340 N
	11/15/06	<10	620	620	960	<0.50	2.6	170	227.000	53.500	8.100	406.000	2,870
	11/14/07	<10.0	311	311	845 D1	0.35	3.60 D1	167 D1	205.000	44.900	7.330	334.000	2,650
	11/12/08	<5.0	640	640	650	0.32	2.2	170	160	37	9.9	290	1,700
	11/4/09	<5.0	670	670	670	0.56	2.6	150	110	27	7.4	300	1,600
	11/11/10	<5.0	217	217	663	0.505	2.58	125	65.9	15.6	4.42	317	1760
MW-5	2/26/98	--	--	180	6,600	--	--	910	1,400.0	470.0	31.00	2,400.0	12,000
	2/14/01	<1.0	166	166	7,700	1.80	4.10	910	--	--	--	--	18,000
	5/17/02	<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	--	--	--	3,900	--	--	94.8	--	--	--	--	422
	5/22/03	<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
	5/11/04	<1.00	160	160	6,760	<3.00	4.65	1,030	1,180.0	417.0	40.30	2,120.0	20,380
	11/17/04	<1.00	172	172	6,750	<10	16.60	786	1,210.0	486.0	40.60	2,300.0	11,980
	11/17/05	<10.0	161	161	2,140 D1	0.79	0.16	334 D1	339.000	126.000	10.800	791.000	7,120 N
	11/14/06	<10	160	160	2,000	0.60	1.5	300	437.000	173.000	14.200	918.000	4,420
	11/14/07	<10.0	161	161	5,790 D1	0.37	4.01 D1	668 D1	812.000	240.000	23.300	1850.000 D1	16,300
	11/6/08	<5.0	160	160	4,900	0.78	0.32	540	660	310	35	1,600	9,700
	11/3/09	<10	160	160	5,100	0.51	2.3	710	860	320	<13	1,800	11,000
	11/11/10	<5.0	176	176	4200	0.159	2.37	554	687	250	17.3	1,400	8890
MW-5A	2/26/98	--	--	170	190	--	--	180	107.0	23.0	3.50	117.0	740
	2/15/01	<1.0	164	164	140	1.20	2.10	130	90.2	27.9	8.70	74.6	670
	5/15/02	<1.0	182	182	53.5	<1.00	2.23	84.4	63.2	16.1	4.69	43.6	475
	10/23/02	--	--	--	50	--	--	616	--	--	--	--	8,670
	5/22/03	<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
	5/11/04	<1.00	164	164	38.8	<1.00	2.25	75.8	60.9	15.0	3.40	43.2	484
	11/17/04	<1.00	152	152	39.6	1.37	2.66	74.3	58.1	13.6	3.83	48.5	430
	11/16/05	<10.0	191	191	40.2	0.82	2.1	75.2 D1	176.000	17.800	4.220	45.300	570 N
	11/14/06	<10	240	240	47	0.64	1.5	79	90.400	16.100	3.580	51.400	588
	11/14/07	<10.0	227	227	54.4	0.66	1.45	68.7 D1	73.700	14.000	<5.000	44.200	528
	11/6/08	<5.0	350	350	53	0.70	1.3	72	76	15	3.4	43	450
	11/3/09	<10	710	710	47	0.72	1.5	79	65	14	3.3	50	440
	11/11/10	<5.00	182	182	49.6	0.568	1.61	73.6	55.7	12.9	2.79	42.0	606
MW-6	2/26/98	--	--	200	260	--	--	400	180.0	44.0	6.20	205.0	1,200
	2/14/01	<1.0	158	158	59	1.70	2.20	99	67.5	22.1	7.67	52.3	470
	5/17/02	<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
	5/22/03	<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
	5/11/04	<1.00	156	156	54.4	1.23	2.19	97	59.0	18.1	4.22	47.8	506
	11/16/04	<1.00	162	162	57.9	1.64	2.68	99.8	66.6	19.6	5.16	57.0	464
	11/17/05	<10.0	201	201	101	0.97	0.35	97.8 D1	103.000	20.200	4.100	59.100	730 N
	11/15/06	<10	750	750	68	0.99	1.5	93	64.600	20.400	4.230	57.100	507
	11/15/07	<10.0	284	284	162	51	1.35	96.3 D1	84.100	25.200	<5.000	62.100	630
	11/6/08	<5.0	220	220	84	1.2	1.2	95	67	21	4.3	53	490
	11/3/09	<10	190	190	81	1.2	1.4	100	66	20	4.5	59	550
	11/8/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	5/14/98	--	--	230	430	--	--	340	214.0	66.0	13.00	165.0	1,200
	2/14/01	<1.0	150	150	510	1.70	2.40	150	--	--	--	--	1,500
	5/16/02	<1.0	150	150	75.7	1.59	2.27	97.4	68.6	23.2	6.63	54.3	501

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COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - N[1]	Sulfate[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-7	10/22/02	--	--	--	88.6	--	--	109	--	--	--	--	490
(Cont.)	5/22/03	<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
	5/13/04	<1.00	130	130	267	1.11	2.18	94.7	107.0	34.7	6.59	62.9	914
	11/16/04	<1.00	130	130	367	1.49	2.72	97.3	142.0	49.3	8.61	87.9	870
	11/17/05	<10.0	121	121	456 D1	0.53	0.28	106 D1	412.000	64.700	12.100	100.000	1,440 N
	11/15/06	<10	240	240	550	0.63	1.5	110	202.000	70.300	7.400	102.000	2,100
	11/15/07	<10.0	189	189	458 D1	1.20	1.39	176 D1	144.000	59.500	9.950	148.000	1,880
	11/12/08	<5.0	110	110	650	0.84	1.2	140	210	76	12	120	1,600
	11/4/09	<5.0	110	110	1,100	0.63	1.5	160	310	120	11	130	2,800
	11/10/10	<5.0	111	111	1310	0.372	1.64	173	415	149	10.0	150	3,130
MW-8	5/13/98	--	--	200	270	--	--	390	190.0	60.0	12.00	170.0	1,200
	2/14/01	<1.0	156	156	49	1.80	2.50	100	59.9	21.5	7.84	52.9	400
	5/16/02	<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
	5/22/03	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
	5/12/04	<1.00	154	154	36.3	1.39	2.38	101	53.0	17.3	4.56	48.1	435
	11/16/04	<1.00	170	170	39.8	1.94	2.94	103	57.8	18.6	5.63	56.4	435
	5/17/05	4	152	156	41	1.64	2.94	105	61.0	18.6	5.78	47.3	434
	11/17/05	<10.0	171	171	113	1.1	<0.05	115 D1	83.400	21.700	5.740	102.000	750 N
	5/9/06	<10	160	160	210	0.89	1.4	200	72.700	33.300	7.120	125.000	896
	11/14/06	<10	150	150	230	1.1	1.2	200	74.200	38.300	9.610	162.000	912
	5/30/07	<10	141	141	62	1.2	1.74	120	54.100	19.100	<5	59.300	500
	11/15/07	<10.0	159	159	43.1	1.33	1.56	94.2 D1	52.100	17.200	<5.000	49.800	540
	5/15/08	<1.53	151	151	40.7	1.40	1.78	99.6 D1	51.7	16.8	4.10	54.8 D1	427
	11/12/08	<5.0	140	140	39	1.4	1.5	97	52	17	<2.6	46	350
	5/20/09	<5.0	140	140	39	1.3	1.6	110	50	17	4.3	49	430
	11/4/09	<5.0	150	150	41	1.4	1.7	110	46	16	3.3	47	450
	5/7/10	<5.0	<5.00	172	34.9	1.09	1.70	97.8	49.5	15.7	3.52	45.5	426
DUP	5/7/10	<5.0	<5.00	157	34.9	1.09	1.71	98.0	51.0	14.5	3.21	43.6	466
	11/12/10	<5.0	172	172	38.7	1.10	1.77	98.2	48.9	15.7	3.40	45.4	410
DUP	11/12/10	<5.0	160	160	38.7	1.10	1.76	98.3	50.5	15.3	3.44	44.8	398
MW-9	5/14/98	--	--	190	350	--	--	470	207.0	61.0	12.00	200.0	1,300
	2/15/01	<1.0	156	156	35	2.60	2.40	110	60.4	19.8	7.47	47.0	430
	5/16/02	<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
	5/22/03	<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
	5/12/04	<1.00	164	164	33.6	1.79	2.29	99.2	54.8	16.0	4.27	43.5	467
	11/16/04	8	154	162	367	1.49	2.72	97.3	63.2	17.8	5.59	55.5	433
	5/17/05	4	154	154	44.2	2.43	3.05	117	58.8	16.7	5.94	44.1	434
	11/17/05	<10.0	161	161	83.5	1.3	0.14	111 D1	149.000	26.200	7.430	80.400	790 N
	5/9/06	<10	170	170	37	1.8	1.8	99	52.700	15.000	3.210	45.500	428
	11/15/06	<10	150	150	210	1.1	1.2	190	70.500	35.800	8.640	152.000	905
	5/30/07	<10	153	153	35	2.1	1.69	110	52.200	15.800	<5	44.700	464
	11/14/07	<10.0	151	151	186	1.49	1.48	156 D1	74.100	39.400	8.730	141.000	808
	5/15/08	<1.53	174	174	42.5	2.38	1.72	105 D1	55.6	17.0	3.99	54.1 D1	467
	11/4/08	<5.0	160	160	39	2.1	1.4	98	54	16	3.7	47	440
	5/20/09	<5.0	320	320	69	2.1	1.5	120	58	19	4.6	58	520
	11/4/09	<5.0	160	160	42	2.2	1.6	110	50	15	3.0	43	460
	5/7/10	<5.0	<5.00	162	50.2	2.02	1.66	97.5	53.6	15.7	3.32	43.5	442
	11/9/10	<5.0	186	186	60.7	1.97	1.74	98.0	59.2	18.1	3.64	50.0	446
MW-9A	5/14/98	--	--	280	600	--	--	770	338.0	96.0	12.00	334.0	2,200
	2/15/01	<1.0	142	142	85	1.40	2.20	71	71.6	19.2	6.94	46.0	400
	5/15/02	<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
	5/22/03	<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
	5/12/04	<1.00	122	122	242	<1.00	2.10	64.7	105.0	26.2	5.11	26.2	950
	11/16/04	<1.00	114	114	296	1.24	2.74	67.5	130.0	33.1	6.24	70.3	826
	5/17/05	<1.00	112	112	354	1.04	2.85	77.1	131.0	31.7	6.39	60.5	828
	11/17/05	<10.0	121	121	310 D1	0.82	0.31	74.7 D1	337.000	41.400	8.080	74.500	1,520 N
	5/9/06	<10	670	670	270	0.67	1.6	78	111.000	27.100	3.880	58.700	992
	11/15/06	<10	1,600	1,600	290	0.62	1.6	72	126.000	33.400	4.740	68.400	1,280
	5/30/07	<10	586	586	400	0.7	1.69	83	153.000	36.900	<5	71.800	1,450
	11/14/07	<10.0	605	605	285 D1	0.62	1.52	64.7 D1	153.000	35.400	5.030	70.700	1,430

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - N[1]	Sulfate[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-9A	5/15/08	<1.53	738	738	380 D1	0.45	1.62	86.8 D1	146	35.5	5.45	77.2 D1	1,390
(Cont.)	11/4/08	<5.0	370	370	330	<1.0	1.2	84	130	32	5.1	66	1,000
	5/20/09	<5.0	600	600	480	0.49	1.5	86	170	43	6.4	76	1,600
	11/4/09	<5.0	110	110	430	0.49	1.6	82	160	41	5.3	71	1,500
	5/7/10	<5.0	<5.00	121	510	0.210	1.62	80.5	188	44.9	4.90	73.6	1,680
	11/9/10	<5.0	115	115	529	0.328	1.72	86.0	159	44.3	5.00	76.1	1,660
MW-10	5/14/98	--	--	240	360	--	--	450	211.0	62.0	11.00	190.0	1,400
	2/15/01	<1.0	140	140	190	2.00	2.30	97	108.0	32.3	8.20	61.0	660
	5/17/02	<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
	5/22/03	<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
	5/13/04	<1.00	158	158	232	1.39	2.23	102	114.0	31.6	5.95	57.2	802
	11/17/04	<1.00	170	170	245	1.73	2.78	104	121.0	35.7	7.07	70.3	764
	5/17/05	<1.00	150	150	233	1.77	2.80	106	113.0	32.3	6.83	60.2	776
	11/17/05	<10.0	151	151	205 D1	1.2	0.26	111 D1	482.000	47.400	13.100	82.400	970 N
	5/9/06	<10	190	190	180	1.4	1.6	98	93.300	27.100	4.310	60.400	724
	11/16/06	<10	320	320	190	1.2	1.6	92	101.000	30.000	4.750	64.100	900
	5/30/07	<10	340	340	200	1.4	1.68	110	101.000	28.600	<5	62.400	820
	11/15/07	<10.0	189	189	251 D1	1.44	1.44	152 D1	104.000	33.400	6.010	84.700	1,010
	5/15/08	<1.53	374	374	342 D1	1.47	1.28	257 D1	106	52.9	11.7	165 D1	1,140
	11/6/08	<5.0	150	150	210	1.5	1.3	89	110	32	5.4	64	730
	5/20/09	<5.0	240	240	270	1.3	1.5	120	110	35	6.2	72	960
	11/4/09	<5.0	150	150	240	1.5	1.3	130	100	35	5.4	78	1,000
	5/7/10	<5.0	<5.00	157	236	1.18	1.62	106	111	30.7	4.59	60.3	940
	11/10/10	<5.0	166	166	280	1.16	1.61	112	98.4	36.9	5.63	81.0	812
MW-11	1/22/99	30	<1.0	30	46	2.30	4.20	94	33.0	7.0	9.10	58.0	370
	2/15/01	<1.0	156	156	37	2.40	2.40	120	64.0	19.1	7.83	50.1	360
	5/16/02	<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
	5/22/03	12	154	166	32.3	1.74	2.28	96.7	62.3	0.0	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
	5/12/04	<1.00	164	164	34.6	1.71	2.38	97.7	54.8	15.7	4.28	46.2	457
	11/16/04	<1.00	160	160	39	2.17	2.81	100	65.2	16.8	5.14	54.3	454
	5/17/05	4	158	162	43.1	1.87	2.82	94.6	68.4	16.9	6.45	44.0	429
	11/17/05	<10.0	161	161	58.1	1.5	2.1	91.3 D1	75.000	17.700	4.550	64.700	700 N
	5/9/06	<10	180	180	37	1.8	1.7	100	54.100	16.200	3.260	46.900	456
	11/14/06	<10	170	170	34	1.8	1.8	110	58.000	18.200	4.130	53.400	532
	5/30/07	<10	142	142	36	1.9	1.79	120	54.000	16.700	<5	50.800	456
	11/14/07	<10.0	189	189	42.3	1.98	1.54	95.6 D1	57.200	17.400	<5.000	52.400	452
	5/15/08	<1.53	177	177	72.4 D1	1.86	1.71	141	58.0	19.4	4.93	66.5 D1	544
	11/4/08	<5.0	170	170	49	1.5	1.3	90	60	16	3.6	47	440
	5/20/09	<5.0	360	360	40	2.2	1.7	130	51	17	4.5	53	450
	11/4/09	<5.0	150	150	43	1.6	1.6	100	52	15	2.9	42	470
	5/7/10	<5.0	<5.00	167	36.5	1.97	1.78	117	49.7	14.9	3.42	44.7	494
	11/9/10	<5.0	269	269	52.5	1.45	1.79	95.4	61.0	16.7	3.56	50.0	438
MW-12	5/15/02	<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
	5/22/03	<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
	5/12/04	<1.00	458	458	72.9	1.04	2.35	86.7	58.1	19.0	5.92	51.8	489
	11/15/04	<1.00	184	184	79.8	1.39	2.83	88.8	59.7	21.5	16.50	77.4	512
	11/17/05	<10.0	151	151	109	0.93	0.12	94.6 D1	193.000	26.600	13.400	87.500	700 N
	11/16/06	<10	270	270	120	0.71	1.7	84	82.300	27.000	4.820	62.200	620
	11/16/07	<10.0	170	170	258 D1	1.21	1.55	191 D1	77.200	42.700	11.000	154.000	1,270
	11/6/08	<5.0	130	130	110	0.89	1.4	79	61	20	4.5	52	460
	11/3/09	<25	2,000	2,000	120	0.87	1.6	98	68	24	6.0	79	600
	11/9/10	<5.0	144	144	211	0.566	1.76	89.8	75.6	27.8	4.60	60.6	712
MW-13	5/13/02	<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
	5/22/03	<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
	5/12/04	<1.00	234	234	1,550	<4.00	4.58	369	384.0	114.0	18.60	485.0	4,240
	11/15/04	<1.00	226	226	1,870	<2.00	4.92	384	510.0	164.0	16.50	627.0	3,600
	11/17/05	<10.0	201	201	722 D1	1.0	2.5	206 D1	786.000	91.600	19.700	276.000	2,350 N
	11/16/06	<10	1,500	1,500	2,000	<0.50 N	2.7	500 N	529.000	176.000	14.200	493.000	5,060

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[2]	Fluoride[1]	Nitrate - N[1]	Sulfate[2]	Calcium	Magnesium	Potassium	Sodium	TDS[2]
New Mexico Water Quality Control Commission Groundwater Standard					250	1.60	10	600					1,000
MW-13	11/16/07	<10.0	236	236	2,000 D1	0.33	3.05 D1	312 D1	361.000	105.000	11.400	553.000 D1	6,320
(Cont.)	11/6/08	<5.0	180	180	970	0.98	1.8	280	240	96	17	370	2,400
	11/3/09	<25	15,000	15,000	2,200	<0.50	2.6	440	490	180	22	490	5,600
	11/9/10	<5.0	267	267	1680	0.217	2.82	405	400	120	10.4	540	4270
RW-1	5/27/99	0	224	224	8,700	2.70	7.00	840	679.0	521.0	34.00	3,290	14,000
	5/22/03	<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
	5/11/04	<1.00	148	148	491	1.32	2.65	109	66.3	23.4	11.20	252.0	1,224
	11/17/04	<1.00	160	160	633	1.65	3.23	121	89.7	43.5	18.00	382.0	1,314
	11/17/05	<10.0	221	221	895 D1	1.0	1.4	166 D1	122.000	70.900	8.400	493.000	2,380 N
	11/16/06	<10	380	380	11,000	<0.50	<20 HC	1,100	539.000	694.000	43.300	5,580.000	22,000
	11/15/07	<10.0	359	359	2,380 D1	1.26	3.74 D1	252 D1	141.000	137.000	16.000	1100.000 D1	5,280
DUP	11/15/07	<10.0	208	208	2,620 D1	1.24	3.85 D1	316 D1	136.000	133.000	15.500	1040.000 D1	5,360
	11/12/08	<5.0	210	210	370	0.82	1.9	97	66	34	5.0	190	920
	11/4/09	<5.0	170	170	1,700	1.1	2.6	250	110	120	22	750	3,800
	11/11/10	<5.0	192	192	1340	0.716	2.72	204	95.5	104	12.6	792	2,830
RW-2	5/22/03	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
	5/13/04	36.0	<4.00	578	1,770	<3.00	3.19	67	898.0	<0.500	21.60	260.0	4,175
	11/17/04	104.0	<4.00	692	2,280	<10.0	<10.0	116	1180.0	<0.500	18.50	415.0	3,915
	11/17/05	281	<10.0	422	1,770 D1	0.89	0.60	175 D1	861.000	16.600	13.100	361.000	7,350 N
	11/16/06	49	150	199	2,500	0.57	1.9	370	978.000	48.800	18.000	437.000	5,270
	11/15/07	170	37.8	208	1,680 D1	0.49	1.52	166 D1	586.000	<5.000	11.200	245.000	5,590
	11/12/08	150	<5.0	390	2,500	<0.50	0.24	250	1,200	<0.38	6.0	400	4,800
	11/4/09	34	<5.0	220	2,200	<0.50	1.7	240	940	0.18	16	420	6,300
	11/11/10	113	<5.0	172	2100	<0.10	2.03	233	967	4.06	8.86	426	4,550

Notes:

1. Shaded cells indicate New Mexico Water Quality Control Commission (NMWQCC) exceedance.
2. **Bold** value indicates a laboratory detection.
3. Results shown in mg/L.
4. N - See narrative in laboratory report for a detailed explanation.
5. D1 - The analysis was performed at a dilution due to the high analyte concentration.
6. H - The analysis was performed past holding time.
7. C - Elevated detection limit due to matrix effect.
8. [1]Human Health Standards for Groundwater.
9. [2]Other Standards for Domestic Water Supply.

STATE OF NEW MEXICO

OFFICE OF THE STATE ENGINEER

JOHN R. D'ANTONIO, JR. P.E.
State Engineer

ROSWELL

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
(505) 622-6521

June 18, 2008

Texaco Exploration and Production, Inc.
% Mark Larson
P.O. Box 730
Hobbs, NM 88240-0730

REF: CP-884

Greetings:

Enclosed is your copy of the above numbered permit, which has been approved subject to the conditions set forth on the approval page thereof.

Proof of Completion of Well(s) will be filed in this office after completion and installation of equipment, but in no event later than 06/30/2010. Proof of Completion of Well forms shall be mailed upon request.

Your rights under this permit will expire on 06/30/2010, unless Proof of Completion of Well(s) is filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

mjw

for Andy Morley
(575) 622-6521, ext 113

Enclosure

cc: Santa Fe Office

NEW MEXICO STATE ENGINEER
APPLICATION TO DIVERT (GROUND)

SPECIFIC CONDITIONS OF APPROVAL

PCW Proof of Completion of Works must be filed on or before 6/30/2010

1. This application is approved as follows:

Permit Number: CP-884

Water Source: Capitan Shallow Groundwater

Point(s) of Diversion:

Well No.	Subdivision	Section	Township	Range
CP-884	NW1/4NW1/4SE1/4	24	24 S.	36 E.

Purpose of Use: Environmental Remediation

Place of Use:

Subdivision	Section	Township	Range
NW1/4NW1/4SE1/4	24	24 S.	36 E.

Amount of Water: Up to 32.5 acre-feet per annum (consumptive use)

2. The diversion of water under this permit shall be limited to a maximum of 32.5 acre-feet per annum, consumptive use, for Environmental Remediation purposes measured at the well.

3. Depth of well shall not exceed the thickness of the Capitan Reef formation.

4. The proposed new well CP-884 shall be drilled at least 660 feet from all wells of other ownership.

5. A totalizing meter of a type approved by and installed in a manner and at a location acceptable to the Office of the State Engineer shall be installed before the first branch of the discharge line from well CP-884. The District II Office shall be advised of the make, model, serial number, installation date and initial reading of the meter prior to any appropriation of water under this permit.

6. Records of the total amount of water diverted from all wells shall be submitted to the State Engineer Office in Roswell on or before the 10th day of January, April, July and October of each year.

7. Upon completion of the remediation or monitoring operation purposes, the well shall be plugged (Article 4) or otherwise maintained so that no water may be diverted from said well unless a permit authorizing the use of the well is approved by the State Engineer in accordance with the other articles of these Rules and Regulations.

8. A driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon Request.

9. The permittee shall utilize the highest technology available to ensure conservation of water to the maximum extent practical.

10. The diversion of water specified under this permit for pollution control shall not establish a water right or relieve the permittee of any liability for detriment to or impairment of existing water rights.

11. This permit shall not be exercised to the detriment of valid existing water rights, shall not be contrary to the conservation of water within the State of New Mexico, and shall not be detrimental to the public welfare of the State of New Mexico.

NEW MEXICO STATE ENGINEER
APPLICATION TO DIVERT (GROUND)

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 11/09/1999 Pub. of Notice Ordered: 01/19/2000
Date Returned - Correction: Affidavit of Pub. Filed: 03/14/2000

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 18th day of Jun A.D., 2008

John R. D Antonio, Jr., P.E., State Engineer

By: Ken Fresquez, District II Supervisor

File Number: CP-884

STATE OF NEW MEXICO

OFFICE OF THE STATE ENGINEER

JOHN R. D'ANTONIO, JR. P.E.
State Engineer

ROSWELL

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
(505) 622-6521

June 18, 2008

Texaco Exploration and Production, Inc.
% Mark Larson
P.O. Box 730
Hobbs, NM 88240-0730

REF: CP-885

Greetings:

Enclosed is your copy of the above numbered permit, which has been approved subject to the conditions set forth on the approval page thereof.

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Your rights under this permit will expire on 06/30/2010, unless Proof of Completion of Well(s) is filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

mjw

for Andy Morley
(575) 622-6521, ext 113

Enclosure

cc: Santa Fe Office

Revised August 1967

IMPORTANT—READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM

2-09704
75.

APPLICATION FOR PERMIT

To ~~Appropriate~~ Divert the Underground Waters of the State of New Mexico

Date Received 11-9-99 File No. CP-884

1. Name of applicant Texaco Exploration and Production, Inc.
   Mailing address P. O. Box 730
   City and State Hobbs, NM 88240-0370
2. Source of water supply Shallow Water Aquifer, located in Capitan
   (artesian or shallow water aquifer) (name of underground basin)
3. The well is to be located in the NW ¼ NW ¼ SE ¼, Section 24 Township 24 South
   Range 36 East N.M.P.M., or Tract No. ____ of Map No. ____ of the ____ District,
   on land owned by ~~Xxxxxxxxxxxxxxx~~ Ludean Cantrell.
4. Description of well: name of driller RW-2, Scarborough Drilling, Inc., Lamesa, Texas;
   Outside Diameter of casing 5" inches; Approximate depth to be drilled 175' feet;
5. Quantity of water to be appropriated and beneficially used ~~32.5~~ acre feet,
   (consumptive use, diversion)
   for Environmental Remediation purposes.
6. Acreage to be irrigated or place of use ____ acres.

Subdivision	Section	Township	Range	Acres	Owner

7. Additional statements or explanations Pursuant to New Mexico Oil Conservation Division (NMOCD), Environmental Bureau direction, and after correspondence between applicant and the Bureau, a plan has been approved to initiate corrective action. The action will include recovering water from said well, equipped with pumping equipment, and disposal of produced water in applicant's disposal system.

I, Mark J. Larson (for Applicant), affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Texaco Exploration and Production, ~~Inc~~ Inc.,

By: _____.

VICKIE A. INMAN
Notary Public, State of Texas
My Comm. Expires 4-14-2002

Subscribed and sworn to before me this 26th day of October, A.D., 1999.

My commission expires 4-14-2002

_____
Notary Public

T# 172258

Number of this permit _____

ACTION OF STATE ENGINEER

After notice pursuant to statute and by authority vested in me, this application is approved provided it is not exercised to the detriment of any others having existing rights; further provided that all rules and regulations of the State Engineer pertaining to the drilling of shallow wells be complied with; and further subject to the following conditions: _____

see attached conditions of approval

Proof of completion of well shall be filed on or before June 30, 2010 _____, ~~XX~~_____

Proof of application of water to beneficial use shall be filed on or before N/A , ~~XX~~

Witness my hand and seal this 18th day of June _____, A.D., ~~19~~ 2008

John R. D'Antonio, Jr., P.E., State Engineer

By: Kenneth M. Fresquez.

Kenneth M. Fresquez, District II Manager

INSTRUCTIONS

This form shall be executed, preferably typewritten, in triplicate and shall be accompanied by a filing fee of $25.00. Each of triplicate copies must be properly signed and attested.

A separate application for permit must be filed for each well used.

Secs. 1–4—Fill out all blanks fully and accurately.

Sec. 5—Irrigation use shall be stated in acre feet of water per acre per annum to be applied on the land. If for municipal or other purposes, state total quantity in acre feet to be used annually.

Sec. 6—Describe only the lands to be irrigated or where water will be used. If on unsurveyed lands describe by legal subdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily located natural object.

Sec. 7—If lands are irrigated from any other source, explain in this section. Give any other data necessary to fully describe water right sought.

NEW MEXICO STATE ENGINEER
APPLICATION TO DIVERT (GROUND)

SPECIFIC CONDITIONS OF APPROVAL

PCW Proof of Completion of Works must be filed on or before 6/30/2010

1. This application is approved as follows:

Permit Number: CP-885

Water Source: Capitan Shallow Groundwater

Point(s) of Diversion:

Well No.	Subdivision	Section	Township	Range
CP-885	NW1/4NW1/4SE1/4	24	24 S.	36 E.

Purpose of Use: Environmental Remediation

Place of Use:

Subdivision	Section	Township	Range
NW1/4NW1/4SE1/4	24	24 S.	36 E.

Amount of Water: Up to 32.5 acre-feet per annum (consumptive use)

2. The diversion of water under this permit shall be limited to a maximum of 32.5 acre-feet per annum, consumptive use, for Environmental Remediation purposes measured at the well.

3. Depth of well shall not exceed the thickness of the Capitan Reef formation.

4. The proposed new well CP-885 shall be drilled at least 660 feet from all wells of other ownership.

5. A totalizing meter of a type approved by and installed in a manner and at a location acceptable to the Office of the State Engineer shall be installed before the first branch of the discharge line from well CP-885. The District II Office shall be advised of the make, model, serial number, installation date and initial reading of the meter prior to any appropriation of water under this permit.

6. Records of the total amount of water diverted from all wells shall be submitted to the State Engineer Office in Roswell on or before the 10th day of January, April, July and October of each year.

7. Upon completion of the remediation or monitoring operation purposes, the well shall be plugged (Article 4) or otherwise maintained so that no water may be diverted from said well unless a permit authorizing the use of the well is approved by the State Engineer in accordance with the other articles of these Rules and Regulations.

8. A driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon Request.

9. The permittee shall utilize the highest technology available to ensure conservation of water to the maximum extent practical.

10. The diversion of water specified under this permit for pollution control shall not establish a water right or relieve the permittee of any liability for detriment to or impairment of existing water rights.

11. This permit shall not be exercised to the detriment of valid existing water rights, shall not be contrary to the conservation of water within the State of New Mexico, and shall not be detrimental to the public welfare of the State of New Mexico.

NEW MEXICO STATE ENGINEER
APPLICATION TO DIVERT (GROUND)

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: | Date Rcvd. Corrected:
Formal Application Rcvd: 11/09/1999 | Pub. of Notice Ordered: 01/19/2000
Date Returned - Correction: | Affidavit of Pub. Filed: 03/14/2000

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 16th day of Jun A.D., 2008

John R. D'Antonio, Jr., P.E., State Engineer

By: [signature]
Ken Fresquez, District II Supervisor

File Number: CP-885

Revised August 1967

IMPORTANT—READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM

2-09704
75.

APPLICATION FOR PERMIT

To ~~Appropriate~~ Divert the Underground Waters of the State of New Mexico

Date Received 11-9-99 File No. CP-885

1. Name of applicant Texaco Exploration and Production, Inc.
   Mailing address P. O. Box 730
   City and State Hobbs, NM 88240-0730
2. Source of water supply Shallow Water Aquifer, located in Capitan
   (artesian or shallow water aquifer) (name of underground basin)
3. The well is to be located in the NW ¼ NW ¼ SE ¼, Section 24 Township 24 South
   Range 36 East N.M.P.M., or Tract No. ____ of Map No. ____ of the ~~Capitan~~ District,
   on land owned by ~~XXXXXXXXXXXXX~~ Ludean Cantrell.
4. Description of well: name of driller RW-1, Scarborough Drilling, Inc., Lamesa, Texas;
   Outside Diameter of casing 5" inches; Approximate depth to be drilled 175' feet;
5. Quantity of water to be appropriated and beneficially used 32.5 acre feet,
   (consumptive use, diversion)
   for Environmental Remediation purposes.
6. Acreage to be irrigated or place of use ____ acres.

Subdivision	Section	Township	Range	Acres	Owner

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
1999 DEC 13 AM 11:10

7. Additional statements or explanations Pursuant to New Mexico Oil Conservation Division (NMOCD), Environmental Bureau direction and after correspondence between applicant and the Bureau, a plan has been approved to initiate corrective action. The action will include recovering water from said well, equipped with pumping equipment, and disposal of produced water in applicant's injection system.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
1999 NOV -9 AM 11:17

I, Mark J. Larson (for Applicant), affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Texaco Exploration and Production, Inc., Permittee,

By: _____.

VICKIE A. INMAN
Notary Public, State of Texas
My Comm. Expires 4-14-2002

Subscribed and sworn to before me this 26th day of October, A.D., 19 99.

My commission expires 4-14-2002

Vickie A. Inman
Notary Public

T#172263

Number of this permit _____

ACTION OF STATE ENGINEER

After notice pursuant to statute and by authority vested in me, this application is approved provided it is not exercised to the detriment of any others having existing rights; further provided that all rules and regulations of the State Engineer pertaining to the drilling of shallow wells be complied with; and further subject to the following conditions: _____

see attached conditions of approval

Proof of completion of well shall be filed on or before June 30, 2010 , XX

Proof of application of water to beneficial use shall be filed on or before N/A , XX

Witness my hand and seal this 16th day of June , A.D., XX 2008 .

John R. D'Antonio, Jr., P.E., State Engineer

By: _____

Kenneth M. Fresquez, District II Manager

INSTRUCTIONS

This form shall be executed, preferably typewritten, in triplicate and shall be accompanied by a filing fee of $25.00. Each of triplicate copies must be properly signed and attested.

A separate application for permit must be filed for each well used.

Secs. 1–4—Fill out all blanks fully and accurately.

Sec. 5—Irrigation use shall be stated in acre feet of water per acre per annum to be applied on the land. If for municipal or other purposes, state total quantity in acre feet to be used annually.

Sec. 6—Describe only the lands to be irrigated or where water will be used. If on unsurveyed lands describe by legal subdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily located natural object.

Sec. 7—If lands are irrigated from any other source, explain in this section. Give any other data necessary to fully describe water right sought.

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
District 2 Office, Roswell, NM

John R. D'Antonio, Jr., P.E.
State Engineer

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623-8559

April 22, 2010

Chevron USA, Inc.
% Todd Wells
2135 S. Loop 250 W.
Midland, TX 79703

REF: CP-884 POD2

Greetings:

Enclosed is your copy of the above numbered permit, which has been approved subject to the conditions set forth on the approval page thereof.

Proof of Completion of Well will be filed in this office after completion and installation of equipment, but in no event later than 04/30/2012. Proof of Completion of Well forms shall be mailed upon request.

Your rights under this permit will expire on 04/30/2012, unless Proof of Completion of Well is filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

Margaret Wolf
Water Resource Tech

Enclosure

cc: Santa Fe
File

NEW MEXICO STATE ENGINEER
APPLICATION TO CHANGE LOCATION OF WELL

SPECIFIC CONDITIONS OF APPROVAL

PCW Proof of Completion of Well must be filed on or before 4/30/2012

1. This application is approved as follows:

Permit Number: CP-884 POD2

Water Source: Capitan Shallow Groundwater

Point(s) of Diversion:

Well No.	Subdivision	Section	Township	Range
CP-884	NW1/4NW1/4SE1/4	24	24 S.	36 E.

Proposed:

CP-884 POD2	NW1/4NW1/4SE1/4	24	24 S	36 E

Purpose of Use: Environmental Remediation

Place of Use:

Subdivision	Section	Township	Range
NW1/4NW1/4SE1/4	24	24 S.	36 E.

Amount of Water: Up to 32.5 acre-feet per annum (consumptive use)

2. The diversion of water under this permit shall be limited to a maximum of 32.5 acre-feet per annum, consumptive use, for Environmental Remediation purposes measured at the well.

3. Depth of well shall not exceed the thickness of the Capitan Reef formation.

4. The proposed new well CP-884 POD2 shall be drilled at least 660 feet from all wells of other ownership.

5. A totalizing meter of a type approved by and installed in a manner and at a location acceptable to the Office of the State Engineer shall be installed before the first branch of the discharge line from well CP-884 POD2. The District II Office shall be advised of the make, model, serial number, installation date and initial reading of the meter prior to any appropriation of water under this permit.

6. Records of the total amount of water diverted from well No. CP-884 POD2 shall be submitted to the State Engineer Office in Roswell on or before the 10th day of January, April, July and October of each year.

NEW MEXICO STATE ENGINEER
APPLICATION TO CHANGE LOCATION OF WELL

7. Upon completion of the remediation or monitoring operation purposes, the well shall be plugged (Article 4) or otherwise maintained so that no water may be diverted from said well unless a permit authorizing the use of the well is approved by the State Engineer in accordance with the other articles of these Rules and Regulations.

8. The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.

9. A driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon Request.

10. If the old well CP-884 is not retained for any other purpose, then it shall be plugged in a manner acceptable to the State Engineer. A plugging plan must be filed and approved by the State Engineer prior to the plugging of the well. The well driller shall file a complete plugging report with the District II Office and permit holder no later than 20 days after completion of the plugging.

11. The permittee shall utilize the highest technology available to ensure conservation of water to the maximum extent practical.

12. The diversion of water specified under this permit for pollution control shall not establish a water right or relieve the permittee of any liability for detriment to or impairment of existing water rights.

13. This permit shall not be exercised to the detriment of valid existing water rights, shall not be contrary to the conservation of water within the State of New Mexico, and shall not be detrimental to the public welfare of the State of New Mexico.

NEW MEXICO STATE ENGINEER
APPLICATION TO CHANGE LOCATION OF WELL

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 09/14/2009	Pub. of Notice Ordered: 09/16/2009
Date Returned - Correction:	Affidavit of Pub. Filed: 01/25/2010

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 21st day of April A.D., 2010

John R. D Antonio, Jr., P.E., State Engineer

By: [signature]
Ken Fresquez, District II Manager

File Number: CP-884

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO CHANGE LOCATION OF WELL

02-27404
25

1. WATER RIGHT OWNER

Name: Chevron U.S.A. Inc. Work Phone: (432)686-0086
Contact: Matt Hudson Home Phone: (432)553-7757
Address: c/o Todd Wells
2135 S. Loop 250 W.
City: Midland State: TX Zip: 79703

2. PURPOSE OF USE

Domestic: ___ Livestock: ___ Irrigation: ___ Municipal: ___ Industrial: ___
Commercial: _x_ Other (specify): Environmental Remediation
Specific use: Groundwater Remediation

3. QUANTITY

Consumptive Use: 32.5 acre-feet per annum
Diversion Amount: 32.5 acre-feet per annum

4. PLACE OF USE

N/A acres of land described as follows:

Subdivision of Section (District or Hydrographic Survey)	Section (Map No.)	Township (Tract No.)	Range	Acres
NW 1/4 NW 1/4 SE 1/4	24	24S	36E	N/A

Who is the owner of the land? Ludean Cantrell

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2009 SEP 14 P 2:28

Do Not Write Below This Line

File Number: CP-884 POD2 Trn Number: _____
Form: wr-06 page 1 of 4

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO CHANGE LOCATION OF WELL

5. CHANGE FROM

A. LOCATION OF WELL (Location a, b, c, d required, e or f if known)

a. _NW_1/4 _NW_1/4 _SE_1/4 Section: _24_ Township: _24S Range: 36E N.M.P.M. in _Lea_____ County.

b. X = _____ feet, Y = _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant. U.S.G.S. Quad Map _____

c. Latitude: _____d _____m _____s Longitude: _____d _____m _____s

d. East _____ (m), North _____ (m), UTM Zone 13, NAD __ (27 or 83)

e. Tract No. _____, Map No. _____ of the _____ Hydrographic Survey

f. Lot No. _____, Block No. _____ of Unit/Tract _____ of the _____ Subdivision recorded in _____ County.

g. Other: _____

h. Give State Engineer File Number of existing well: _CP-884_____

i. On land owned by (required): _Ludean Cantrell_____

j. Is well to be plugged or capped? _No_ If not, state for what use retained: _The well will be retained for monitoring use. Only water samples will be taken from the retained well.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2009 SEP 14 P 2:28

Do Not Write Below This Line

File Number: CP-884 POD2 Trn Number: _____

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO CHANGE LOCATION OF WELL

6. CHANGE TO

A. LOCATION OF WELL (Location a, b, c, d required, e or f if known)

a. _NW_1/4 _NW_1/4 _SE_1/4 Section: _24_ Township: _24S Range: 36E N.M.P.M. in _Lea_____ County.

b. X = _____ feet, Y = _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant. U.S.G.S. Quad Map _____

c. Latitude: _____d _____m _____s Longitude: _____d _____m _____s

d. East _____ (m), North _____ (m), UTM Zone 13, NAD __ (27 or 83)

e. Tract No. _____, Map No. _____ of the _____ Hydrographic Survey

f. Lot No. _____, Block No. _____ of Unit/Tract _____ of the _____ Subdivision recorded in _____ County

g. Other: _____

h. Give State Engineer File Number of existing well: _____

i. On land owned by (required): _Ludean Cantrell_____

j. If new well, give approximate depth (if known) _175 feet; Outside diameter of casing _6_ inches. Name of driller and license number (if known) _Straub Corporation WD1478_____.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2009 SEP 14 P 2:29

7. REASON FOR CHANGE

Application is made to change location of well for the following reasons:
_The casing for the current well, RW-2, is compromised and not _____
_functional as a recovery well._____

8. ADDITIONAL STATEMENTS OR EXPLANATIONS:

_The new location of the well will be within 100 feet of the existing _____
_recovery well, RW-2. We request emergency authorization of this permit and _____
_the Affidavit to accompany emergency groundwater application is attached _____
_for your review._____

Do Not Write Below This Line

File Number: CP-884 POD2 Trn Number: _____

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO CHANGE LOCATION OF WELL

ACKNOWLEDGEMENT

(I, We) Thomas Wells affirm that the
(Please Print)
foregoing statements are true to the best of (my, our) knowledge and belief.

Thomas Wells _____.
Applicant Signature Applicant Signature

ACTION OF STATE ENGINEER

This application is approved~~xxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare; and further subject to the following conditions: _____

see attached conditions of approval

Witness my hand and seal this 21st day of April, 20 10

John R. D'Antonio, Jr., P.E. State Engineer

By: _____
Kenneth M. Fresquez, District II Manager

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2009 SEP 14 P 2:29

Do Not Write Below This Line

File Number: CP-884 POD2 Trn Number: _____
Form: wr-06 page 4 of 4

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – ROSWELL OFFICE

OFFICIAL RECEIPT NUMBER: 02-27406 DATE: 9-15-2009 FILE NO.: CP-884

TOTAL: 25.00 RECEIVED: Twenty-five and 00/100 DOLLARS M.O CHECK NO.: C-02720046491 CASH: ____

PAYOR: Chevron USA ADDRESS: 2135 S. Loop 250 W. CITY: Midland STATE: TX

ZIP: 79703 RECEIVED BY: NSpivey

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; **yellow** copy to Water Rights, Santa Fe Office, and **goldenrod** copy for district file. If you make a mistake, void original and all copies and submit to Program Support/ASD along with valid receipts.

A. Ground Water Rights Filing Fees

___ 1.	Declaration of Water Right	$ 1.00
___ 2.	Application to Appropriate: Domestic (72-12-1.1)	$125.00
___ 3.	Application for Stock Well	$ 5.00
___ 4.	Application to Repair or Deepen (72-12-1.1)	$ 75.00
___ 5.	Application for Replacement 72-12-1.1 Well	$ 75.00
___ 6.	Application for Supplemental 72-12-1 Well	$ 125.00
___ 7.	Application to Change Purpose of Use of 72-12-1 Well	$ 75.00
___ 8.	Application to Appropriate Irrig., Mun., Ind., or Comm. Use	$ 25.00
___ 9.	Application for Supplemental Well	$ 25.00
X 10.	Application to Change Location of Non 72-12-1 Well	$ 25.00
___11.	Application to Change Place or Purpose of Use	$ 25.00
___12.	Application to Change Location of Well and Place and/or Purpose of Use	$ 50.00
___13.	Application to Combine Wells and/or Use	$ 25.00
___14.	Application for Extension of Time	$ 25.00
___15.	Proof of Completion of Well	$ 25.00
___16.	Proof of Application to Beneficial Use	$ 25.00
___17.	Application for Plan of Replacement	$ 25.00
___18.	Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	$ 50.00
___19.	Application for Test, Exploratory, or Observation Well	$ 5.00
___20.	Change of Ownership	$ 2.00

B. Surface Water Rights Filing Fees

___ 1.	Declaration of Water Right	$ 10.00
___ 2.	Amended Declaration	$ 25.00
___ 3.	Declaration of Livestock Water Impoundment	$ 10.00
___ 4.	Application for Livestock Water Impoundment	$ 10.00
___ 5.	Application to Appropriate	$ 25.00
___ 6.	Notice of Intent to Appropriate	$ 25.00
___ 7.	Application to Change Point of Diversion	$ 100.00
___ 8.	Application to Change Place and/or Purpose of Use	$ 100.00
___ 9.	Application to Change Point of Diversion and Place and/or Purpose of Use	$ 200.00
___10.	Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	$ 200.00
___11.	Application for Extension of Time	$ 50.00
___12.	Supplemental Well to a Surface Right	$ 100.00
___13.	Return Flow Credit	$ 100.00
___14.	Proof of Completion of Works	$ 25.00
___15.	Proof of Application of Water to Beneficial Use	$ 25.00
___16.	Water Development Plan	$100.00
___17.	Change of Ownership	$ 5.00

C. Miscellaneous Fees

___ 1.	Application for Well Driller's License	$50.00
___ 2.	Application for Renewal of Well Driller's License	$50.00
___ 3.	Application to Amend Well Driller's License	$50.00

D. Reproduction of Documents

_____ @ 0.20¢/copy $_____

_____ Map(s) $_____

E. Certification $_____

E. Other $_____

G. Comments:

_____

_____

_____

_____

_____

_____

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

John R. D'Antonio, Jr., P.E.
State Engineer

1900 West Second Street
Roswell, NM 88201-1712
(575) 622-6521
FAX: (575) 623-8559

August 9, 2010

Chevron U.S.A. Inc.
% Todd Wells
2135 S. Loop 250 West
Midland, TX 79703

File Nbr: CP-885

Greetings:

Enclosed is your copy of Extension of Time for the above numbered permit, which has been granted.

Proof of Completion of Well(s) will be filed in this office after completion and installation of equipment, but in no event later than 06/30/2013.

Your rights under this permit will expire on 06/30/2013, unless Proof of Completion of Well(s) is filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

Margaret Wolf
Water Resource Tech

Enclosure

cc: Santa Fe Office

File Number: CP-885
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR EXTENSION OF TIME IN WHICH TO PERFECT AN APPROPRIATION OF UNDERGROUND WATER

02-28403
75=

1. PERMITTEE

Name: Chevron U.S.A. Inc. Work Phone: (432) 686-0086
Contact: Matt Hudson Home Phone: (432) 553-7757
Address: c/o Todd Wells
2135 S. Loop 250 West
City: Midland State: TX Zip: 79703

2. HEREBY APPLIES FOR AN EXTENSION OF TIME IN WHICH TO

Complete the well for file number CP-885
(complete the well, apply water to beneficial use or both)

3. REASON

The period of time is insufficient and additional time is requested for the following reasons (state reasons in detail if desirable or necessary, submit affidavits, photographs, etc., as evidence in support of statement:
The well for file number CP-885 is drilled but not equipped. Therefore, an extension of time in which to complete the well is requested.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2010 JUN 15 P 2:01

The State Engineer is hereby requested to extend the time previously granted by extending the limiting date to 06/30/2013.
mm/dd/year

Do Not Write Below This Line

File Number: CP-885 Trn Number:

File Number: CP-885
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR EXTENSION OF TIME IN WHICH TO PERFECT AN APPROPRIATION OF UNDERGROUND WATER

ACKNOWLEDGEMENT

(I, We) Chevron U.S.A. Inc. affirm that the
(Please Print)
foregoing statements are true to the best of (my, our) knowledge and belief.

Todd Wells
Permittee Signature

Permittee Signature

ACTION OF STATE ENGINEER

By authority vested in me, this application for additional time is approved and I do hereby grant the permittee an extention of time to the following dates:

Complete the well on or before June 30, 20 13

Apply Water to Beneficial Use on or before N/A, 20 ____

Witness my hand and seal this 6th day of August, 20 10

John R. D'Antonio, Jr., P.E. State Engineer

By: Andy Morley
Andy Morley, Staff Manager

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2010 JUN 15 P 2:01

Do Not Write Below This Line

File Number: CP-885 Trn Number: ____

Form: wr-13 page 2 of 2

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

24-May-2010

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

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

Re: CEMC Cooper-JAL - 039123 Work Order: **1005203**

Dear Patricia,

ALS Laboratory Group received 6 samples on 08-May-2010 09:05 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 19.

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: 24-May-10

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: **1005203**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1005203-01	MW-9A	Water		5/7/2010 11:33	5/8/2010 09:05	☐
1005203-02	MW-9	Water		5/7/2010 11:40	5/8/2010 09:05	☐
1005203-03	MW-08	Water		5/7/2010 12:50	5/8/2010 09:05	☐
1005203-04	MW-10	Water		5/7/2010 11:55	5/8/2010 09:05	☐
1005203-05	MW-11	Water		5/7/2010 11:15	5/8/2010 09:05	☐
1005203-06	DUP	Water		5/7/2010	5/8/2010 09:05	☐

ALS Laboratory Group

Date: 24-May-10

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: 1005203

Case Narrative

Batch R90630, Anions, Sample MW-9A: MS/MSD recoveries for Chloride and Fluoride were outside control limits due to matrix interference. The results for Chloride were "E" and "O" qualified.

Batch R90714, Anions, Sample MW-11: MS/MSD recoveries were outside control limits for Sulfate due to matrix interference, and the results are "E" and "O" qualified. In addition, MS recovery was outside control limits for Chloride due to matrix inteference.

ALS Laboratory Group

Date: *24-May-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: 1005203
Sample ID: MW-9A
Lab ID: 1005203-01
Collection Date: 5/7/2010 11:33 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**188**		**2.50**	**mg/L**	5	5/14/2010	5/18/2010 09:02 PM
Magnesium	**44.9**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:02 PM
Potassium	**4.90**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:02 PM
Sodium	**73.6**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:02 PM
ANIONS			**E300**				Analyst: **IGF**
Chloride	**510**		**5.00**	**mg/L**	10		5/10/2010 12:36 PM
Fluoride	**0.210**		**0.100**	**mg/L**	1		5/8/2010 12:33 PM
Nitrogen, Nitrate (As N)	**1.62**		**0.100**	**mg/L**	1		5/8/2010 12:33 PM
Sulfate	**80.5**		**0.500**	**mg/L**	1		5/8/2010 12:33 PM
Surr: Selenate (surr)	*94.3*		*85-115*	*%REC*	1		5/8/2010 12:33 PM
Surr: Selenate (surr)	*96.9*		*85-115*	*%REC*	10		5/10/2010 12:36 PM
ALKALINITY			**SM2320B**				Analyst: **IGF**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Total (As CaCO3)	**121**		**5.00**	**mg/L**	1		5/19/2010
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,680**		**10.0**	**mg/L**	1		5/11/2010 05:00 PM

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

ALS Laboratory Group

Date: *24-May-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: 1005203
Sample ID: MW-9
Lab ID: 1005203-02
Collection Date: 5/7/2010 11:40 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**53.6**		**2.50**	**mg/L**	5	5/14/2010	5/18/2010 09:07 PM
Magnesium	**15.7**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:07 PM
Potassium	**3.32**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:07 PM
Sodium	**43.5**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:07 PM
ANIONS			**E300**				Analyst: **RPM**
Chloride	**50.2**		**0.500**	**mg/L**	1		5/8/2010 01:37 PM
Fluoride	**2.02**		**0.100**	**mg/L**	1		5/8/2010 01:37 PM
Nitrogen, Nitrate (As N)	**1.66**		**0.100**	**mg/L**	1		5/8/2010 01:37 PM
Sulfate	**97.5**		**5.00**	**mg/L**	10		5/10/2010 12:51 PM
Surr: Selenate (surr)	*93.7*		*85-115*	*%REC*	1		5/8/2010 01:37 PM
Surr: Selenate (surr)	*96.2*		*85-115*	*%REC*	10		5/10/2010 12:51 PM
ALKALINITY			**SM2320B**				Analyst: **IGF**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Total (As CaCO3)	**162**		**5.00**	**mg/L**	1		5/19/2010
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**442**		**10.0**	**mg/L**	1		5/11/2010 05:00 PM

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

ALS Laboratory Group

Date: *24-May-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: 1005203
Sample ID: MW-08
Lab ID: 1005203-03
Collection Date: 5/7/2010 12:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**49.5**		**2.50**	**mg/L**	5	5/14/2010	5/18/2010 09:13 PM
Magnesium	**15.7**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:13 PM
Potassium	**3.52**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:13 PM
Sodium	**45.5**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:13 PM
ANIONS			**E300**				Analyst: **RPM**
Chloride	**34.9**		**0.500**	**mg/L**	1		5/8/2010 01:58 PM
Fluoride	**1.09**		**0.100**	**mg/L**	1		5/8/2010 01:58 PM
Nitrogen, Nitrate (As N)	**1.70**		**0.100**	**mg/L**	1		5/8/2010 01:58 PM
Sulfate	**97.8**		**0.500**	**mg/L**	1		5/8/2010 01:58 PM
Surr: Selenate (surr)	*93.5*		*85-115*	*%REC*	1		5/8/2010 01:58 PM
ALKALINITY			**SM2320B**				Analyst: **IGF**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Total (As CaCO3)	**172**		**5.00**	**mg/L**	1		5/19/2010
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**426**		**10.0**	**mg/L**	1		5/11/2010 05:00 PM

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

ALS Laboratory Group

Date: *24-May-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: 1005203
Sample ID: MW-10
Lab ID: 1005203-04
Collection Date: 5/7/2010 11:55 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**111**		**2.50**	**mg/L**	5	5/14/2010	5/18/2010 09:23 PM
Magnesium	**30.7**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:23 PM
Potassium	**4.59**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:23 PM
Sodium	**60.3**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:23 PM
ANIONS			**E300**				Analyst: **IGF**
Chloride	**236**		**5.00**	**mg/L**	10		5/10/2010 01:05 PM
Fluoride	**1.18**		**0.100**	**mg/L**	1		5/8/2010 02:19 PM
Nitrogen, Nitrate (As N)	**1.62**		**0.100**	**mg/L**	1		5/8/2010 02:19 PM
Sulfate	**106**		**5.00**	**mg/L**	10		5/10/2010 01:05 PM
Surr: Selenate (surr)	*91.9*		*85-115*	*%REC*	1		5/8/2010 02:19 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		5/10/2010 01:05 PM
ALKALINITY			**SM2320B**				Analyst: **IGF**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Total (As CaCO3)	**157**		**5.00**	**mg/L**	1		5/19/2010
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**940**		**10.0**	**mg/L**	1		5/11/2010 05:00 PM

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

ALS Laboratory Group

Date: *24-May-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Work Order: 1005203
Sample ID: MW-11
Lab ID: 1005203-05
Collection Date: 5/7/2010 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**49.7**		**2.50**	**mg/L**	5	5/14/2010	5/18/2010 09:28 PM
Magnesium	**14.9**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:28 PM
Potassium	**3.42**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:28 PM
Sodium	**44.7**		**1.00**	**mg/L**	5	5/14/2010	5/18/2010 09:28 PM
ANIONS			**E300**				Analyst: **RPM**
Chloride	**36.5**		**0.500**	**mg/L**	1		5/8/2010 02:41 PM
Fluoride	**1.97**		**0.100**	**mg/L**	1		5/8/2010 02:41 PM
Nitrogen, Nitrate (As N)	**1.78**		**0.100**	**mg/L**	1		5/8/2010 02:41 PM
Sulfate	**117**		**5.00**	**mg/L**	10		5/10/2010 01:20 PM
Surr: Selenate (surr)	*93.2*		*85-115*	*%REC*	1		5/8/2010 02:41 PM
Surr: Selenate (surr)	*92.6*		*85-115*	*%REC*	10		5/10/2010 01:20 PM
ALKALINITY			**SM2320B**				Analyst: **IGF**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Total (As CaCO3)	**167**		**5.00**	**mg/L**	1		5/19/2010
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**494**		**10.0**	**mg/L**	1		5/11/2010 05:00 PM

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

ALS Laboratory Group

Date: *24-May-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
Sample ID: DUP
Collection Date: 5/7/2010

Work Order: 1005203
Lab ID: 1005203-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**51.0**		**0.500**	**mg/L**	1	5/14/2010	5/18/2010 05:37 PM
Magnesium	**14.5**		**0.200**	**mg/L**	1	5/14/2010	5/18/2010 05:37 PM
Potassium	**3.21**		**0.200**	**mg/L**	1	5/14/2010	5/18/2010 05:37 PM
Sodium	**43.6**		**0.200**	**mg/L**	1	5/14/2010	5/18/2010 05:37 PM
ANIONS			**E300**				Analyst: **RPM**
Chloride	**34.9**		**0.500**	**mg/L**	1		5/8/2010 03:02 PM
Fluoride	**1.09**		**0.100**	**mg/L**	1		5/8/2010 03:02 PM
Nitrogen, Nitrate (As N)	**1.71**		**0.100**	**mg/L**	1		5/8/2010 03:02 PM
Sulfate	**98.0**		**0.500**	**mg/L**	1		5/8/2010 03:02 PM
Surr: Selenate (surr)	*93.8*		*85-115*	*%REC*	1		5/8/2010 03:02 PM
ALKALINITY			**SM2320B**				Analyst: **IGF**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		5/19/2010
Alkalinity, Total (As CaCO3)	**157**		**5.00**	**mg/L**	1		5/19/2010
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**466**		**10.0**	**mg/L**	1		5/11/2010 05:00 PM

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

ALS Laboratory Group

Date: 24-May-10

Client: Conestoga-Rovers & Associates

Work Order: 1005203

Project: CEMC Cooper-JAL - 039123

QC BATCH REPORT

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: **DUP** 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: **DUP** 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: 1005203
Project: CEMC Cooper-JAL - 039123

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: **DUP** 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:

1005203-01A	1005203-02A	1005203-03A
1005203-04A	1005203-05A	1005203-06A

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

Client: Conestoga-Rovers & Associates
Work Order: 1005203
Project: CEMC Cooper-JAL - 039123

QC BATCH REPORT

Batch ID: **R90630** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-050810-R90630** Units: **mg/L** Analysis Date: **5/8/2010 11:50 AM**
Client ID: Run ID: **ICS3000_100508A** SeqNo: **1952528** 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)	0.045	0.10								J
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.884*	0.10	*5*	0	*97.7*	*85-115*	0			

LCS Sample ID: **WLCSW1-050810-R90630** Units: **mg/L** Analysis Date: **5/8/2010 12:11 PM**
Client ID: Run ID: **ICS3000_100508A** SeqNo: **1952529** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.71	0.50	20	0	98.5	90-110	0			
Fluoride	4.185	0.10	4	0	105	90-110	0			
Nitrogen, Nitrate (As N)	3.918	0.10	4	0	98	90-110	0			
Sulfate	19.77	0.50	20	0	98.9	90-110	0			
Surr: Selenate (surr)	*4.939*	0.10	*5*	0	*98.8*	*85-115*	0			

MS Sample ID: **1005203-01BMS** Units: **mg/L** Analysis Date: **5/8/2010 12:54 PM**
Client ID: **MW-9A** Run ID: **ICS3000_100508A** SeqNo: **1952531** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	504.2	0.50	10	505	-8.85	80-120	0			SEO
Fluoride	2.64	0.10	2	0.21	122	80-120	0			S
Nitrogen, Nitrate (As N)	3.819	0.10	2	1.618	110	80-120	0			
Sulfate	90	0.50	10	80.49	95.1	80-120	0			O
Surr: Selenate (surr)	*5.046*	0.10	*5*	0	*101*	*85-115*	0			

MSD Sample ID: **1005203-01BMSD** Units: **mg/L** Analysis Date: **5/8/2010 01:15 PM**
Client ID: **MW-9A** Run ID: **ICS3000_100508A** SeqNo: **1952532** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	503.8	0.50	10	505	-12.8	80-120	504.2	0.0782	20	SEO
Fluoride	2.63	0.10	2	0.21	121	80-120	2.64	0.38	20	S
Nitrogen, Nitrate (As N)	3.817	0.10	2	1.618	110	80-120	3.819	0.0524	20	
Sulfate	89.98	0.50	10	80.49	94.9	80-120	90	0.0267	20	O
Surr: Selenate (surr)	*5.047*	0.10	*5*	0	*101*	*85-115*	5.046	*0.0198*	*20*	

The following samples were analyzed in this batch:

1005203-01B	1005203-02B	1005203-03B
1005203-04B	1005203-05B	1005203-06B

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

Client: Conestoga-Rovers & Associates
Work Order: 1005203
Project: CEMC Cooper-JAL - 039123

QC BATCH REPORT

Batch ID: **R90714** Instrument ID **ICS2100** Method: **E300**

MBLK Sample ID: **WBLKW3-051010-R90714** Units: **mg/L** Analysis Date: **5/10/2010 10:51 AM**
Client ID: Run ID: **ICS2100_100510A** SeqNo: **1954210** 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								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.844*	0.10	*5*	0	*96.9*	*85-115*	0			

LCS Sample ID: **WLCSW3-051010-R90714** Units: **mg/L** Analysis Date: **5/10/2010 11:06 AM**
Client ID: Run ID: **ICS2100_100510A** SeqNo: **1954211** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.76	0.50	20	0	93.8	90-110	0			
Sulfate	20.32	0.50	20	0	102	90-110	0			
Surr: Selenate (surr)	*5.002*	0.10	*5*	0	*100*	*85-115*	0			

LCSD Sample ID: **WLCSDW3-051010-R90714** Units: **mg/L** Analysis Date: **5/10/2010 11:20 AM**
Client ID: Run ID: **ICS2100_100510A** SeqNo: **1954212** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.04	0.50	20	0	90.2	90-110	18.76	3.91	20	
Sulfate	19.7	0.50	20	0	98.5	90-110	20.32	3.12	20	
Surr: Selenate (surr)	*4.833*	0.10	*5*	0	*96.7*	*85-115*	5.002	*3.44*	*20*	

MS Sample ID: **1005203-05BMS** Units: **mg/L** Analysis Date: **5/10/2010 12:07 PM**
Client ID: **MW-11** Run ID: **ICS2100_100510A** SeqNo: **1954214** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	46.06	0.50	10	38.75	73	80-120	0			S
Sulfate	134.2	0.50	10	133.4	8.23	80-120	0			SEO
Surr: Selenate (surr)	*4.921*	0.10	*5*	0	*98.4*	*85-115*	0			

MSD Sample ID: **1005203-05BMSD** Units: **mg/L** Analysis Date: **5/10/2010 12:22 PM**
Client ID: **MW-11** Run ID: **ICS2100_100510A** SeqNo: **1954215** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	47.81	0.50	10	38.75	90.6	80-120	46.06	3.74	20	
Sulfate	138.4	0.50	10	133.4	50.4	80-120	134.2	3.09	20	SEO
Surr: Selenate (surr)	*5.082*	0.10	*5*	0	*102*	*85-115*	4.921	*3.22*	*20*	

The following samples were analyzed in this batch: 1005203-01B, 1005203-02B, 1005203-04B, 1005203-05B

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

Client: Conestoga-Rovers & Associates
Work Order: 1005203
Project: CEMC Cooper-JAL - 039123

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: 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:

1005203-01B	1005203-02B	1005203-03B
1005203-04B	1005203-05B	1005203-06B

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

Client: Conestoga-Rovers & Associates
Work Order: 1005203
Project: CEMC Cooper-JAL - 039123

QC BATCH REPORT

Batch ID: **R91204** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-051910-R91204** Units: **mg/L** Analysis Date: **5/19/2010**
Client ID: Run ID: **WETCHEM_100519H** SeqNo: **1964435** 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: **WLCSW1-051910-R91204** Units: **mg/L** Analysis Date: **5/19/2010**
Client ID: Run ID: **WETCHEM_100519H** SeqNo: **1964436** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	959.5	5.0	1000	0	96	80-120	0			

DUP Sample ID: **1005379-03FDUP** Units: **mg/L** Analysis Date: **5/19/2010**
Client ID: Run ID: **WETCHEM_100519H** SeqNo: **1964468** 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	0	0	0	0-0	0	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)	469.7	5.0	0	0	0	0-0	464.6	1.09	20	

The following samples were analyzed in this batch:

1005203-01B	1005203-02B	1005203-03B
1005203-04B	1005203-05B	1005203-06B

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

ALS Laboratory Group

Date: 24-May-10

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - 039123
WorkOrder: **1005203**

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 #: 1005203

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	CEMC Cooper-Jal	A	Dissolved Metals (6020/7000) Ca,Mg, Na, K
Work Order		Project Number	39123	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	Invoice Attn	Patricia Lynch	D	TDS
Address	6320 Rothway, Suite 100	Address	6320 Rothway, Suite 100	E	TEMP
				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		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-9A	05-07-10	1133	W	None	2	X	X	X	X							
2	~~MW-9~~	05-07-10	1140	W		2	X	X	X	X							
3	MW-08	05-07-10	1250	W		2	X	X	X	X							
4	MW-10	05-07-10	1155	W		2	X	X	X	X							
5	MW-11	05-07-10	1115	W		2	X	X	X	X							
6	DUP	05-07-10	—	W		2	X	X	X	X							
7	TEMP	05-07-10	—	W	None	1					X						
8																	
9																	
10																	

Sampler(s) Please Print & Sign: JUSTIN TRIMOOR

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:	Notes:
	05-07-10	1524		10 Day TAT. Chevron Site
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID / Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check One Box Below)
- ☑ 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

Sample Receipt Checklist

Client Name: **CRA-HOU** Date/Time Received: **08-May-10 09:05**

Work Order: **1005203** Received by: **RDH**

Checklist completed by RobertD. Harris (eSignature) 08-May-10 (Date) Reviewed by: SharonL. Tyler (eSignature) 11-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):	1.9c	002	
Cooler(s)/Kit(s):	3413		
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:

1005L05

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

...te 05-07-10 FedEx Tracking Number 869809949797

...nder's Name Justin J. Pramota Phone 432 686-0086

Company CRA

Address 2135 Loop 250 West

Dept/Floor/Suite/Room

...y Midland State TX ZIP 79703

...ur Internal Billing Reference 039123 Goodel Jal

ALS Laboratory Group

10450 Stancliff Rd., Suite 210
Houston, Texas 77093
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date:
Name:
Company

CUSTODY SEAL

5-7-10 Time: 1530

Cory Coleman

CRA

Seal Broken By:

Date: 5/8/10

07-Dec-2010

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

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

Re: CEMC Cooper-JAL - SSOW - 039123 Work Order: **1011569**

Dear Patricia,

ALS Environmental received 19 samples on 13-Nov-2010 11:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental 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 Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 44.

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

Sincerely,

Electronically approved by: Mary K. Knowles

Hector Coronado
Project Manager

Certificate No: T104704231-09A-TX

ALS Environmental

Date: 07-Dec-10

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: **1011569**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1011569-01	MW-1 111010	Water		11/10/2010 14:45	11/13/2010 11:30	☐
1011569-02	MW-2 111210	Water		11/12/2010 13:45	11/13/2010 11:30	☐
1011569-03	MW-2A 111110	Water		11/11/2010 15:20	11/13/2010 11:30	☐
1011569-04	MW-3 111010	Water		11/10/2010 11:00	11/13/2010 11:30	☐
1011569-05	MW-4 111110	Water		11/11/2010 13:45	11/13/2010 11:30	☐
1011569-06	MW-4A 111110	Water		11/11/2010 14:00	11/13/2010 11:30	☐
1011569-07	MW-5 111110	Water		11/11/2010 12:45	11/13/2010 11:30	☐
1011569-08	MW-5A 111110	Water		11/11/2010 13:00	11/13/2010 11:30	☐
1011569-09	MW-7 111010	Water		11/10/2010 11:40	11/13/2010 11:30	☐
1011569-10	MW-8 111210	Water		11/12/2010 13:00	11/13/2010 11:30	☐
1011569-11	MW-9 110910	Water		11/9/2010 16:00	11/13/2010 11:30	☐
1011569-12	MW-9A 110910	Water		11/9/2010 15:40	11/13/2010 11:30	☐
1011569-13	MW-10 111010	Water		11/10/2010 13:15	11/13/2010 11:30	☐
1011569-14	MW-11 110910	Water		11/9/2010 15:20	11/13/2010 11:30	☐
1011569-15	MW-12 110910	Water		11/9/2010 14:20	11/13/2010 11:30	☐
1011569-16	MW-13 110910	Water		11/9/2010 13:00	11/13/2010 11:30	☐
1011569-17	RW-1 111110	Water		11/11/2010 14:30	11/13/2010 11:30	☐
1011569-18	RW-2 111110	Water		11/11/2010 14:00	11/13/2010 11:30	☐
1011569-19	Dup 111210	Water		11/12/2010	11/13/2010 11:30	☐

Client:	Conestoga-Rovers & Associates
Project:	CEMC Cooper-JAL - SSOW - 039123
Work Order:	1011569

Case Narrative

Batch 48153, Metals, (sample MW-9A 110910), MS/MSD recoveries were outside the control limits.

Batch R101839, Anions by E300, (sample MW-1 111010 & MW-2 111210), MS/MSD recoveries were outside the control limits.

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-1 111010
Lab ID: 1011569-01
Collection Date: 11/10/2010 02:45 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**138**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 03:33 AM
Magnesium	**196**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:11 PM
Potassium	**21.5**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 03:33 AM
Sodium	**1,480**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:11 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**2,670**		**50.0**	**mg/L**	100		12/1/2010 11:42 PM
Fluoride	**1.92**		**0.100**	**mg/L**	1		11/30/2010 04:45 PM
Sulfate	**373**		**5.00**	**mg/L**	10		12/1/2010 06:25 PM
Nitrate/Nitrite (as N)	**2.62**		**0.100**	**mg/L**	1		12/1/2010 05:36 AM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	100		12/1/2010 11:42 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		12/1/2010 05:36 AM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	10		12/1/2010 06:25 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		11/30/2010 04:45 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**223**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**223**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**5,020**		**10.0**	**mg/L**	1		11/17/2010 01:00 PM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-2 111210 **Lab ID:** 1011569-02
Collection Date: 11/12/2010 01:45 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**326**		**50.0**	**mg/L**	100	11/23/2010	11/30/2010 08:16 PM
Magnesium	**120**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:16 PM
Potassium	**9.80**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 03:38 AM
Sodium	**795**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:16 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**1,890**		**50.0**	**mg/L**	100		12/2/2010 12:03 AM
Fluoride	**0.726**		**0.100**	**mg/L**	1		11/30/2010 06:00 PM
Sulfate	**327**		**5.00**	**mg/L**	10		12/1/2010 06:46 PM
Nitrate/Nitrite (as N)	**1.86**		**0.100**	**mg/L**	1		12/1/2010 07:22 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	100		12/2/2010 12:03 AM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	1		12/1/2010 07:22 AM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	10		12/1/2010 06:46 PM
Surr: Selenate (surr)	*105*		*85-115*	*%REC*	1		11/30/2010 06:00 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**186**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**186**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**3,680**		**10.0**	**mg/L**	1		11/18/2010 10:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-2A 111110
Lab ID: 1011569-03
Collection Date: 11/11/2010 03:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**53.9**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 03:43 AM
Magnesium	**14.9**		**2.00**	**mg/L**	10	11/23/2010	11/30/2010 08:21 PM
Potassium	**2.86**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 03:43 AM
Sodium	**42.8**		**2.00**	**mg/L**	10	11/23/2010	11/30/2010 08:21 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**86.1**		**0.500**	**mg/L**	1		12/1/2010 07:38 PM
Fluoride	**0.453**		**0.100**	**mg/L**	1		11/30/2010 07:03 PM
Sulfate	**74.0**		**0.500**	**mg/L**	1		11/30/2010 07:03 PM
Nitrate/Nitrite (as N)	**1.73**		**0.100**	**mg/L**	1		12/1/2010 08:25 AM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	1		12/1/2010 07:38 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		12/1/2010 08:25 AM
Surr: Selenate (surr)	*105*		*85-115*	*%REC*	1		11/30/2010 07:03 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**158**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**158**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**474**		**10.0**	**mg/L**	1		11/18/2010 10:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-3 111010
Lab ID: 1011569-04
Collection Date: 11/10/2010 11:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**48.8**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 03:49 AM
Magnesium	**15.2**		**2.00**	**mg/L**	10	11/23/2010	11/30/2010 08:27 PM
Potassium	**3.42**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 03:49 AM
Sodium	**45.1**		**2.00**	**mg/L**	10	11/23/2010	11/30/2010 08:27 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**35.4**		**0.500**	**mg/L**	1		12/1/2010 07:59 PM
Fluoride	**0.836**		**0.100**	**mg/L**	1		11/30/2010 07:25 PM
Sulfate	**99.9**		**0.500**	**mg/L**	1		11/30/2010 07:25 PM
Nitrate/Nitrite (as N)	**1.77**		**0.100**	**mg/L**	1		12/1/2010 08:46 AM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	1		12/1/2010 07:59 PM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	1		12/1/2010 08:46 AM
Surr: Selenate (surr)	*105*		*85-115*	*%REC*	1		11/30/2010 07:25 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**164**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**164**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**380**		**10.0**	**mg/L**	1		11/16/2010 12:00 PM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-4 111110 **Lab ID:** 1011569-05
Collection Date: 11/11/2010 01:45 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**1,380**		**50.0**	**mg/L**	100	11/23/2010	11/30/2010 08:32 PM
Magnesium	**904**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:32 PM
Potassium	**40.4**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 03:54 AM
Sodium	**5,450**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:32 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**15,500**		**500**	**mg/L**	1000		12/2/2010 02:16 PM
Fluoride	ND		1.00	mg/L	10		12/1/2010 07:07 PM
Sulfate	**1,270**		**50.0**	**mg/L**	100		12/2/2010 12:24 AM
Nitrate/Nitrite (as N)	**10.2**		**10.0**	**mg/L**	100		12/1/2010 03:41 PM
Surr: Selenate (surr)	*105*		*85-115*	*%REC*	1000		12/2/2010 02:16 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	100		12/1/2010 03:41 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	100		12/2/2010 12:24 AM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	10		12/1/2010 07:07 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**294**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**294**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**25,500**		**10.0**	**mg/L**	1		11/18/2010 08:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-4A 111110 **Lab ID:** 1011569-06
Collection Date: 11/11/2010 02:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**65.9**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 03:59 AM
Magnesium	**15.6**		**2.00**	**mg/L**	10	11/23/2010	11/30/2010 08:37 PM
Potassium	**4.42**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 03:59 AM
Sodium	**317**		**2.00**	**mg/L**	10	11/23/2010	11/30/2010 08:37 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**663**		**5.00**	**mg/L**	10		12/1/2010 07:28 PM
Fluoride	**0.505**		**0.100**	**mg/L**	1		11/30/2010 08:07 PM
Sulfate	**125**		**5.00**	**mg/L**	10		12/1/2010 07:28 PM
Nitrate/Nitrite (as N)	**2.58**		**0.100**	**mg/L**	1		12/1/2010 09:29 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		12/1/2010 07:28 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 09:29 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		11/30/2010 08:07 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**217**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**217**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**1,760**		**10.0**	**mg/L**	1		11/18/2010 08:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-5 111110
Lab ID: 1011569-07
Collection Date: 11/11/2010 12:45 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**687**		**50.0**	**mg/L**	100	11/23/2010	11/30/2010 08:43 PM
Magnesium	**250**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:43 PM
Potassium	**17.3**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:19 AM
Sodium	**1,400**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 08:43 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**4,200**		**50.0**	**mg/L**	100		12/2/2010 12:45 AM
Fluoride	**0.159**		**0.100**	**mg/L**	1		11/30/2010 09:10 PM
Sulfate	**554**		**5.00**	**mg/L**	10		12/1/2010 07:49 PM
Nitrate/Nitrite (as N)	**2.37**		**0.100**	**mg/L**	1		12/1/2010 09:50 AM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	100		12/2/2010 12:45 AM
Surr: Selenate (surr)	*88.6*		*85-115*	*%REC*	1		12/1/2010 09:50 AM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	10		12/1/2010 07:49 PM
Surr: Selenate (surr)	*92.2*		*85-115*	*%REC*	1		11/30/2010 09:10 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**176**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**176**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**8,890**		**10.0**	**mg/L**	1		11/18/2010 08:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-5A 111110 **Lab ID:** 1011569-08
Collection Date: 11/11/2010 01:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**55.7**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 05:24 AM
Magnesium	**12.9**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:24 AM
Potassium	**2.79**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:24 AM
Sodium	**42.0**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:24 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**49.6**		**0.500**	**mg/L**	1		12/1/2010 08:21 PM
Fluoride	**0.568**		**0.100**	**mg/L**	1		11/30/2010 09:31 PM
Sulfate	**73.6**		**0.500**	**mg/L**	1		11/30/2010 09:31 PM
Nitrate/Nitrite (as N)	**1.61**		**0.100**	**mg/L**	1		12/1/2010 10:11 AM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	1		12/1/2010 08:21 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1		12/1/2010 10:11 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		11/30/2010 09:31 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**182**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**182**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**606**		**10.0**	**mg/L**	1		11/18/2010 08:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-7 111010
Lab ID: 1011569-09
Collection Date: 11/10/2010 11:40 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**415**		**50.0**	**mg/L**	100	11/23/2010	11/30/2010 08:58 PM
Magnesium	**149**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:29 AM
Potassium	**10.0**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:29 AM
Sodium	**150**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:29 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**1,310**		**50.0**	**mg/L**	100		12/2/2010 01:06 AM
Fluoride	**0.372**		**0.100**	**mg/L**	1		11/30/2010 09:52 PM
Sulfate	**173**		**5.00**	**mg/L**	10		12/1/2010 08:11 PM
Nitrate/Nitrite (as N)	**1.64**		**0.100**	**mg/L**	1		12/1/2010 10:32 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	100		12/2/2010 01:06 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		12/1/2010 10:32 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		12/1/2010 08:11 PM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	1		11/30/2010 09:52 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**111**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**111**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**3,130**		**10.0**	**mg/L**	1		11/16/2010 12:00 PM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-8 111210 **Lab ID:** 1011569-10
Collection Date: 11/12/2010 01:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**48.9**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 05:35 AM
Magnesium	**15.7**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:35 AM
Potassium	**3.40**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:35 AM
Sodium	**45.4**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:35 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**38.7**		**0.500**	**mg/L**	1		12/1/2010 08:43 PM
Fluoride	**1.10**		**0.100**	**mg/L**	1		11/30/2010 10:13 PM
Sulfate	**98.2**		**0.500**	**mg/L**	1		11/30/2010 10:13 PM
Nitrate/Nitrite (as N)	**1.77**		**0.100**	**mg/L**	1		12/1/2010 11:35 AM
Surr: Selenate (surr)	*107*		*85-115*	*%REC*	1		12/1/2010 08:43 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1		12/1/2010 11:35 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1		11/30/2010 10:13 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**172**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**172**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**410**		**10.0**	**mg/L**	1		11/18/2010 10:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-9 110910
Lab ID: 1011569-11
Collection Date: 11/9/2010 04:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**59.2**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 05:40 AM
Magnesium	**18.1**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:40 AM
Potassium	**3.64**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:40 AM
Sodium	**50.0**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:40 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**60.7**		**0.500**	**mg/L**	1		12/1/2010 09:04 PM
Fluoride	**1.97**		**0.100**	**mg/L**	1		12/1/2010 09:04 PM
Sulfate	**98.0**		**5.00**	**mg/L**	10		12/1/2010 08:32 PM
Nitrate/Nitrite (as N)	**1.74**		**0.100**	**mg/L**	1		12/1/2010 12:25 PM
Surr: Selenate (surr)	*107*		*85-115*	*%REC*	1		12/1/2010 09:04 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 12:25 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	10		12/1/2010 08:32 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**186**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**186**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**446**		**10.0**	**mg/L**	1		11/16/2010 09:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-9A 110910 **Lab ID:** 1011569-12
Collection Date: 11/9/2010 03:40 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**159**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 02:40 AM
Magnesium	**44.3**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 02:40 AM
Potassium	**5.00**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 02:40 AM
Sodium	**76.1**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 02:40 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**529**		**5.00**	**mg/L**	10		12/1/2010 08:53 PM
Fluoride	**0.328**		**0.100**	**mg/L**	1		11/30/2010 10:56 PM
Sulfate	**86.0**		**0.500**	**mg/L**	1		11/30/2010 10:56 PM
Nitrate/Nitrite (as N)	**1.72**		**0.100**	**mg/L**	1		12/1/2010 12:46 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		12/1/2010 08:53 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1		12/1/2010 12:46 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		11/30/2010 10:56 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**115**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**115**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**1,660**		**10.0**	**mg/L**	1		11/16/2010 09:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-10 111010 **Lab ID:** 1011569-13
Collection Date: 11/10/2010 01:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**98.4**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 05:45 AM
Magnesium	**36.9**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:45 AM
Potassium	**5.63**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:45 AM
Sodium	**81.0**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 05:45 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**280**		**5.00**	**mg/L**	10		12/1/2010 09:14 PM
Fluoride	**1.16**		**0.100**	**mg/L**	1		11/30/2010 11:17 PM
Sulfate	**112**		**5.00**	**mg/L**	10		12/1/2010 09:14 PM
Nitrate/Nitrite (as N)	**1.61**		**0.100**	**mg/L**	1		12/1/2010 01:07 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	10		12/1/2010 09:14 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1		12/1/2010 01:07 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		11/30/2010 11:17 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**166**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**166**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**812**		**10.0**	**mg/L**	1		11/16/2010 12:00 PM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-11 110910 **Lab ID:** 1011569-14
Collection Date: 11/9/2010 03:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**61.0**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 06:01 AM
Magnesium	**16.7**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:01 AM
Potassium	**3.56**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:01 AM
Sodium	**50.0**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:01 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**52.5**		**0.500**	**mg/L**	1		12/1/2010 04:22 PM
Fluoride	**1.45**		**0.100**	**mg/L**	1		12/1/2010 04:22 PM
Sulfate	**95.4**		**5.00**	**mg/L**	10		12/2/2010 05:45 PM
Nitrate/Nitrite (as N)	**1.79**		**0.100**	**mg/L**	1		12/2/2010 05:19 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 04:22 PM
Surr: Selenate (surr)	*97.8*		*85-115*	*%REC*	1		12/2/2010 05:19 AM
Surr: Selenate (surr)	*105*		*85-115*	*%REC*	10		12/2/2010 05:45 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**269**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**269**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**438**		**10.0**	**mg/L**	1		11/16/2010 09:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: MW-12 110910
Lab ID: 1011569-15
Collection Date: 11/9/2010 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**75.6**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 06:07 AM
Magnesium	**27.8**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:07 AM
Potassium	**4.60**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:07 AM
Sodium	**60.6**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:07 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**211**		**5.00**	**mg/L**	10		12/1/2010 09:35 PM
Fluoride	**0.566**		**0.100**	**mg/L**	1		11/30/2010 11:38 PM
Sulfate	**89.8**		**0.500**	**mg/L**	1		11/30/2010 11:38 PM
Nitrate/Nitrite (as N)	**1.76**		**0.100**	**mg/L**	1		12/1/2010 01:28 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		12/1/2010 09:35 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 01:28 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1		11/30/2010 11:38 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**144**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**144**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**712**		**10.0**	**mg/L**	1		11/16/2010 09:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123 **Work Order:** 1011569
Sample ID: MW-13 110910 **Lab ID:** 1011569-16
Collection Date: 11/9/2010 01:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**400**		**50.0**	**mg/L**	100	11/23/2010	11/30/2010 09:04 PM
Magnesium	**120**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:12 AM
Potassium	**10.4**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:12 AM
Sodium	**540**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 09:04 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**1,680**		**50.0**	**mg/L**	100		12/2/2010 01:27 AM
Fluoride	**0.217**		**0.100**	**mg/L**	1		11/30/2010 11:59 PM
Sulfate	**405**		**5.00**	**mg/L**	10		12/1/2010 10:38 PM
Nitrate/Nitrite (as N)	**2.82**		**0.100**	**mg/L**	1		12/1/2010 01:49 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	100		12/2/2010 01:27 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 01:49 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		12/1/2010 10:38 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1		11/30/2010 11:59 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**267**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/20/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**267**		**5.00**	**mg/L**	1		11/20/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**4,270**		**10.0**	**mg/L**	1		11/16/2010 09:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: RW-1 111110
Lab ID: 1011569-17
Collection Date: 11/11/2010 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**95.5**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 06:17 AM
Magnesium	**104**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:17 AM
Potassium	**12.6**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:17 AM
Sodium	**792**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 09:09 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**1,340**		**50.0**	**mg/L**	100		12/2/2010 01:48 AM
Fluoride	**0.716**		**0.100**	**mg/L**	1		12/1/2010 12:20 AM
Sulfate	**204**		**5.00**	**mg/L**	10		12/1/2010 10:59 PM
Nitrate/Nitrite (as N)	**2.72**		**0.100**	**mg/L**	1		12/1/2010 02:11 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	100		12/2/2010 01:48 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 02:11 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10		12/1/2010 10:59 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1		12/1/2010 12:20 AM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**192**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**192**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**2,830**		**10.0**	**mg/L**	1		11/18/2010 10:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: RW-2 111110
Lab ID: 1011569-18
Collection Date: 11/11/2010 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**967**		**50.0**	**mg/L**	100	11/23/2010	11/30/2010 09:14 PM
Magnesium	**4.06**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:23 AM
Potassium	**8.86**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:23 AM
Sodium	**426**		**20.0**	**mg/L**	100	11/23/2010	11/30/2010 09:14 PM
ANIONS			**E300**				Analyst: **DM**
Chloride	**2,100**		**50.0**	**mg/L**	100		12/2/2010 02:52 AM
Fluoride	ND		0.100	mg/L	1		12/1/2010 01:23 AM
Sulfate	**233**		**5.00**	**mg/L**	10		12/1/2010 11:21 PM
Nitrate/Nitrite (as N)	**2.03**		**0.100**	**mg/L**	1		12/1/2010 02:32 PM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	100		12/2/2010 02:52 AM
Surr: Selenate (surr)	*99.9*		*85-115*	*%REC*	1		12/1/2010 02:32 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	10		12/1/2010 11:21 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1		12/1/2010 01:23 AM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	**113**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	**58.7**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**172**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**4,550**		**10.0**	**mg/L**	1		11/18/2010 08:00 AM

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

ALS Environmental

Date: *07-Dec-10*

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
Work Order: 1011569
Sample ID: Dup 111210
Lab ID: 1011569-19
Collection Date: 11/12/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
DISSOLVED METALS			**SW6020**				Analyst: **ALR**
Calcium	**50.5**		**0.500**	**mg/L**	1	11/23/2010	11/30/2010 06:28 AM
Magnesium	**15.3**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:28 AM
Potassium	**3.44**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:28 AM
Sodium	**44.8**		**0.200**	**mg/L**	1	11/23/2010	11/30/2010 06:28 AM
ANIONS			**E300**				Analyst: **DM**
Chloride	**38.7**		**0.500**	**mg/L**	1		12/1/2010 01:44 AM
Fluoride	**1.10**		**0.100**	**mg/L**	1		12/1/2010 01:44 AM
Sulfate	**98.3**		**0.500**	**mg/L**	1		12/1/2010 01:44 AM
Nitrate/Nitrite (as N)	**1.76**		**0.100**	**mg/L**	1		12/1/2010 02:53 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1		12/1/2010 01:44 AM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1		12/1/2010 02:53 PM
ALKALINITY			**SM2320B**				Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3	**160**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1		11/24/2010 10:00 AM
Alkalinity, Total (As CaCO3)	**160**		**5.00**	**mg/L**	1		11/24/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**				Analyst: **JLC**
Total Dissolved Solids (Residue, Filterable)	**398**		**10.0**	**mg/L**	1		11/18/2010 10:00 AM

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

Batch ID: **48153** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW5-112310-48153** Units: **mg/L** Analysis Date: **11/30/2010 02:29 AM**

Client ID: Run ID: **ICPMS03_101129A** SeqNo: **2192820** Prep Date: **11/23/2010** 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: **MLCSW5-112310-48153** Units: **mg/L** Analysis Date: **11/30/2010 02:34 AM**

Client ID: Run ID: **ICPMS03_101129A** SeqNo: **2192821** Prep Date: **11/23/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	4.947	0.50	5	0	98.9	80-120	0			
Magnesium	4.979	0.20	5	0	99.6	80-120	0			
Potassium	4.962	0.20	5	0	99.2	80-120	0			
Sodium	4.97	0.20	5	0	99.4	80-120	0			

MS Sample ID: **1011569-12BMS** Units: **mg/L** Analysis Date: **11/30/2010 02:56 AM**

Client ID: **MW-9A 110910** Run ID: **ICPMS03_101129A** SeqNo: **2192825** Prep Date: **11/23/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	162.1	0.50	5	158.7	68	75-125	0			SO
Magnesium	48.68	0.20	5	44.33	87	75-125	0			O
Potassium	9.792	0.20	5	5.003	95.8	75-125	0			
Sodium	83.05	0.20	5	76.1	139	75-125	0			SO

MSD Sample ID: **1011569-12BMSD** Units: **mg/L** Analysis Date: **11/30/2010 03:01 AM**

Client ID: **MW-9A 110910** Run ID: **ICPMS03_101129A** SeqNo: **2192826** Prep Date: **11/23/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	157.8	0.50	5	158.7	-18	75-125	162.1	2.69	25	SO
Magnesium	46	0.20	5	44.33	33.4	75-125	48.68	5.66	25	SO
Potassium	9.632	0.20	5	5.003	92.6	75-125	9.792	1.65	25	
Sodium	76.78	0.20	5	76.1	13.6	75-125	83.05	7.85	25	SO

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **48153** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1011569-12BDUP** Units: **mg/L** Analysis Date: **11/30/2010 02:45 AM**

Client ID: **MW-9A 110910** Run ID: **ICPMS03_101129A** SeqNo: **2192823** Prep Date: **11/23/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	166.7	0.50	0	0	0	0-0	158.7	4.92	25	
Magnesium	46.17	0.20	0	0	0	0-0	44.33	4.07	25	
Potassium	5.217	0.20	0	0	0	0-0	5.003	4.19	25	
Sodium	78.27	0.20	0	0	0	0-0	76.1	2.81	25	

The following samples were analyzed in this batch:

1011569-01B	1011569-02B	1011569-03B
1011569-04B	1011569-05B	1011569-06B
1011569-07B	1011569-08B	1011569-09B
1011569-10B	1011569-11B	1011569-12B
1011569-13B	1011569-14B	1011569-15B
1011569-16B	1011569-17B	1011569-18B
1011569-19B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101009** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R101009** Units: **mg/L** Analysis Date: **11/16/2010 09:00 AM**
Client ID: Run ID: **BALANCE1_101116F** SeqNo: **2174983** 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, Fil	ND	10								

LCS Sample ID: **LCS-R101009** Units: **mg/L** Analysis Date: **11/16/2010 09:00 AM**
Client ID: Run ID: **BALANCE1_101116F** SeqNo: **2174984** 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, Fil	992	10	1000	0	99.2	85-115	0			

DUP Sample ID: **1011432-14FDUP** Units: **mg/L** Analysis Date: **11/16/2010 09:00 AM**
Client ID: Run ID: **BALANCE1_101116F** SeqNo: **2174960** 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, Fil	1170	10	0	0	0	0-0	1154	1.38	20	

DUP Sample ID: **1011569-16CDUP** Units: **mg/L** Analysis Date: **11/16/2010 09:00 AM**
Client ID: **MW-13 110910** Run ID: **BALANCE1_101116F** SeqNo: **2174982** 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, Fil	4432	10	0	0	0	0-0	4270	3.72	20	

The following samples were analyzed in this batch:

1011569-11C	1011569-12C	1011569-14C
1011569-15C	1011569-16C	

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101015** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R101015** Units: **mg/L** Analysis Date: **11/16/2010 12:00 PM**
Client ID: Run ID: **BALANCE1_101116I** SeqNo: **2175232** 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, Fil	ND	10								

LCS Sample ID: **LCS-R101015** Units: **mg/L** Analysis Date: **11/16/2010 12:00 PM**
Client ID: Run ID: **BALANCE1_101116I** SeqNo: **2175233** 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, Fil	1000	10	1000	0	100	85-115	0			

DUP Sample ID: **1011497-08DDUP** Units: **mg/L** Analysis Date: **11/16/2010 12:00 PM**
Client ID: Run ID: **BALANCE1_101116I** SeqNo: **2175222** 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, Fil	18680	10	0	0	0	0-0	18670	0.0321	20	

DUP Sample ID: **1011569-09CDUP** Units: **mg/L** Analysis Date: **11/16/2010 12:00 PM**
Client ID: **MW-7 111010** Run ID: **BALANCE1_101116I** SeqNo: **2175230** 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, Fil	2986	10	0	0	0	0-0	3132	4.77	20	

The following samples were analyzed in this batch: 1011569-04C 1011569-09C 1011569-13C

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101016** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R101016** Units: **mg/L** Analysis Date: **11/17/2010 01:00 PM**
Client ID: Run ID: **BALANCE1_101117B** SeqNo: **2175246** 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, Fil	ND	10								

LCS Sample ID: **LCS-R101016** Units: **mg/L** Analysis Date: **11/17/2010 01:00 PM**
Client ID: Run ID: **BALANCE1_101117B** SeqNo: **2175247** 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, Fil	988	10	1000	0	98.8	85-115	0			

DUP Sample ID: **1011397-06DDUP** Units: **mg/L** Analysis Date: **11/17/2010 01:00 PM**
Client ID: Run ID: **BALANCE1_101117B** SeqNo: **2175235** 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, Fil	1256	10	0	0	0	0-0	1208	3.9	20	

The following samples were analyzed in this batch: 1011569-01C

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101147** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R101147** Units: **mg/L** Analysis Date: **11/18/2010 08:00 AM**
Client ID: Run ID: **BALANCE1_101118D** SeqNo: **2178589** 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, Fil	ND	10								

LCS Sample ID: **LCS-R101147** Units: **mg/L** Analysis Date: **11/18/2010 08:00 AM**
Client ID: Run ID: **BALANCE1_101118D** SeqNo: **2178590** 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, Fil	972	10	1000	0	97.2	85-115	0			

DUP Sample ID: **1011485-01ADUP** Units: **mg/L** Analysis Date: **11/18/2010 08:00 AM**
Client ID: Run ID: **BALANCE1_101118D** SeqNo: **2178562** 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, Fil	4862	10	0	0	0	0-0	4724	2.88	20	

The following samples were analyzed in this batch:

1011569-05C	1011569-06C	1011569-07C
1011569-08C	1011569-18C	

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101172** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R101172** Units: **mg/L** Analysis Date: **11/18/2010 10:00 AM**
Client ID: Run ID: **BALANCE1_101118E** SeqNo: **2179446** 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, Fil	ND	10								

LCS Sample ID: **LCS-R101172** Units: **mg/L** Analysis Date: **11/18/2010 10:00 AM**
Client ID: Run ID: **BALANCE1_101118E** SeqNo: **2179447** 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, Fil	944	10	1000	0	94.4	85-115	0			

DUP Sample ID: **1011569-17CDUP** Units: **mg/L** Analysis Date: **11/18/2010 10:00 AM**
Client ID: **RW-1 111110** Run ID: **BALANCE1_101118E** SeqNo: **2179443** 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, Fil	2848	10	0	0	0	0-0	2834	0.493	20	

The following samples were analyzed in this batch:

1011569-02C	1011569-03C	1011569-10C
1011569-17C	1011569-19C	

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101401** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-112010-R101401** Units: **mg/L** Analysis Date: **11/20/2010 11:00 AM**
Client ID: Run ID: **WETCHEM_101120A** SeqNo: **2183539** 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: **WLCSW1-112010-R101401** Units: **mg/L** Analysis Date: **11/20/2010 11:00 AM**
Client ID: Run ID: **WETCHEM_101120A** SeqNo: **2183540** 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)	1012	5.0	1000	0	101	80-120	0			
Alkalinity, Total (As CaCO3)	1012	5.0	1000	0	101	80-120	0			

DUP Sample ID: **1011338-01GDUP** Units: **mg/L** Analysis Date: **11/20/2010 11:00 AM**
Client ID: Run ID: **WETCHEM_101120A** SeqNo: **2183558** 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)	267.2	5.0	0	0	0	0-0	267.2	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)	267.2	5.0	0	0	0	0-0	267.2	0	20	

The following samples were analyzed in this batch:

1011569-11C	1011569-12C	1011569-14C
1011569-15C	1011569-16C	

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101596** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-112410-R101596** Units: **mg/L** Analysis Date: **11/24/2010 10:00 AM**
Client ID: Run ID: **WETCHEM_101124I** SeqNo: **2189756** 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: **WLCSW1-112410-R101596** Units: **mg/L** Analysis Date: **11/24/2010 10:00 AM**
Client ID: Run ID: **WETCHEM_101124I** SeqNo: **2189757** 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)	1012	5.0	1000	0	101	80-120	0			
Alkalinity, Total (As CaCO3)	1012	5.0	1000	0	101	80-120	0			

DUP Sample ID: **1011536-03FDUP** Units: **mg/L** Analysis Date: **11/24/2010 10:00 AM**
Client ID: Run ID: **WETCHEM_101124I** SeqNo: **2189773** 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)	382.6	5.0	0	0	0	0-0	382.6	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)	382.6	5.0	0	0	0	0-0	382.6	0	20	

The following samples were analyzed in this batch:

1011569-01C	1011569-02C	1011569-03C
1011569-04C	1011569-05C	1011569-06C
1011569-07C	1011569-08C	1011569-09C
1011569-10C	1011569-13C	1011569-17C
1011569-18C	1011569-19C	

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101839** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-113010-R101839** Units: **mg/L** Analysis Date: **11/30/2010 11:28 AM**
Client ID: Run ID: **ICS3000_101130A** SeqNo: **2194695** 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	0	0	0	0-0	0			
Fluoride	ND	0.10	0	0	0	0-0	0			
Sulfate	ND	0.50	0	0	0	0-0	0			
Surr: Selenate (surr)	*5.01*	0.10	*5*	0	*100*	*85-115*	0			

LCS Sample ID: **WLCSW1-113010-R101839** Units: **mg/L** Analysis Date: **11/30/2010 11:49 AM**
Client ID: Run ID: **ICS3000_101130A** SeqNo: **2194696** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.12	0.50	20	0	106	90-110	0			
Fluoride	3.899	0.10	4	0	97.5	90-110	0			
Sulfate	19.26	0.50	20	0	96.3	90-110	0			
Surr: Selenate (surr)	*5.182*	0.10	*5*	0	*104*	*85-115*	0			

LCSD Sample ID: **WLCSDW1-113010-R101839** Units: **mg/L** Analysis Date: **12/1/2010 02:05 AM**
Client ID: Run ID: **ICS3000_101130A** SeqNo: **2194637** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.71	0.50	20	0	109	90-110	21.12	2.77	20	
Fluoride	3.917	0.10	4	0	97.9	90-110	3.899	0.461	20	
Sulfate	19	0.50	20	0	95	90-110	19.26	1.39	20	
Surr: Selenate (surr)	*5.114*	0.10	*5*	0	*102*	*85-115*	5.182	*1.32*	*20*	

MS Sample ID: **1011569-01CMS** Units: **mg/L** Analysis Date: **11/30/2010 05:18 PM**
Client ID: **MW-1 111010** Run ID: **ICS3000_101130A** SeqNo: **2194604** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2674	0.50	10	2715	-407	80-120	0			SEO
Fluoride	3.776	0.10	2	1.924	92.6	80-120	0			
Sulfate	344.9	0.50	10	340.5	44.5	80-120	0			SEO
Surr: Selenate (surr)	*5.227*	0.10	*5*	0	*105*	*85-115*	0			

MS Sample ID: **1011569-02CMS** Units: **mg/L** Analysis Date: **11/30/2010 06:21 PM**
Client ID: **MW-2 111210** Run ID: **ICS3000_101130A** SeqNo: **2194610** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1857	0.50	10	1894	-363	80-120	0			SEO
Fluoride	2.479	0.10	2	0.726	87.6	80-120	0			
Sulfate	306.6	0.50	10	303.7	28.6	80-120	0			SEO
Surr: Selenate (surr)	*5.275*	0.10	*5*	0	*106*	*85-115*	0			

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101839** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **1011569-01CMSD** Units: **mg/L** Analysis Date: **11/30/2010 05:39 PM**
Client ID: **MW-1 111010** Run ID: **ICS3000_101130A** SeqNo: **2194607** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2680	0.50	10	2715	-349	80-120	2674	0.216	20	SEO
Fluoride	3.781	0.10	2	1.924	92.8	80-120	3.776	0.132	20	
Sulfate	345.6	0.50	10	340.5	50.8	80-120	344.9	0.184	20	SEO
Surr: Selenate (surr)	*5.251*	0.10	*5*	0	*105*	*85-115*	5.227	*0.458*	*20*	

MSD Sample ID: **1011569-02CMSD** Units: **mg/L** Analysis Date: **11/30/2010 06:42 PM**
Client ID: **MW-2 111210** Run ID: **ICS3000_101130A** SeqNo: **2194613** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1870	0.50	10	1894	-239	80-120	1857	0.669	20	SEO
Fluoride	2.492	0.10	2	0.726	88.3	80-120	2.479	0.523	20	
Sulfate	308.6	0.50	10	303.7	49.1	80-120	306.6	0.667	20	SEO
Surr: Selenate (surr)	*5.311*	0.10	*5*	0	*106*	*85-115*	5.275	*0.68*	*20*	

The following samples were analyzed in this batch:

1011569-01C	1011569-02C	1011569-03C
1011569-04C	1011569-05C	1011569-06C
1011569-07C	1011569-08C	1011569-09C
1011569-10C	1011569-11C	1011569-12C
1011569-13C	1011569-14c	1011569-15C
1011569-16C	1011569-17C	1011569-18C
1011569-19C		

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101852** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-113010-2-R101852** Units: **mg/L** Analysis Date: **12/1/2010 03:09 AM**
Client ID: Run ID: **ICS3000_101130B** SeqNo: **2194850** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Selenate (surr)	*5.333*	0.10	*5*	0	*107*	*85-115*	0			

LCS Sample ID: **WLCSW1-113010-2-R101852** Units: **mg/L** Analysis Date: **12/1/2010 03:30 AM**
Client ID: Run ID: **ICS3000_101130B** SeqNo: **2194852** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.842	0.10	8	0	98	90-110	0			
Surr: Selenate (surr)	*5.096*	0.10	*5*	0	*102*	*85-115*	0			

LCSD Sample ID: **WLCSDW1-113010-2-R101852** Units: **mg/L** Analysis Date: **12/1/2010 03:51 AM**
Client ID: Run ID: **ICS3000_101130B** SeqNo: **2194854** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.934	0.10	8	0	99.2	90-110	7.842	1.17	20	
Surr: Selenate (surr)	*5.364*	0.10	*5*	0	*107*	*85-115*	5.096	*5.12*	*20*	

MS Sample ID: **1011569-01AMS** Units: **mg/L** Analysis Date: **12/1/2010 05:58 AM**
Client ID: **MW-1 111010** Run ID: **ICS3000_101130B** SeqNo: **2194864** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	6.471	0.10	4	2.623	96.2	80-120	0			
Surr: Selenate (surr)	*5.222*	0.10	*5*	0	*104*	*85-115*	0			

MS Sample ID: **1011569-02AMS** Units: **mg/L** Analysis Date: **12/1/2010 07:43 AM**
Client ID: **MW-2 111210** Run ID: **ICS3000_101130B** SeqNo: **2194874** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.725	0.10	4	1.865	96.5	80-120	0			
Surr: Selenate (surr)	*5.227*	0.10	*5*	0	*105*	*85-115*	0			

MSD Sample ID: **1011569-01AMSD** Units: **mg/L** Analysis Date: **12/1/2010 06:19 AM**
Client ID: **MW-1 111010** Run ID: **ICS3000_101130B** SeqNo: **2194866** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	6.414	0.10	4	2.623	94.8	80-120	6.471	0.885	20	
Surr: Selenate (surr)	*5.179*	0.10	*5*	0	*104*	*85-115*	5.222	*0.827*	*20*	

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101852** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **1011569-02AMSD** Units: **mg/L** Analysis Date: **12/1/2010 08:04 AM**

Client ID: **MW-2 111210** Run ID: **ICS3000_101130B** SeqNo: **2194876** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.764	0.10	4	1.865	97.5	80-120	5.725	0.679	20	
Surr: Selenate (surr)	*5.26*	0.10	*5*	0	*105*	*85-115*	5.227	*0.629*	*20*	

The following samples were analyzed in this batch:

1011569-01A	1011569-02A	1011569-03A
1011569-04A	1011569-05A	1011569-06A
1011569-07A	1011569-08A	1011569-09A
1011569-10A	1011569-11A	1011569-12A
1011569-13A	1011569-15A	1011569-16A
1011569-17A	1011569-18A	1011569-19A

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101862** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2-120110-R101862** Units: **mg/L** Analysis Date: **12/1/2010 09:52 AM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195209** 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								
Surr: Selenate (surr)	*5.123*	0.10	*5*	0	*102*	*85-115*	0			

LCS Sample ID: **WLCSW2-120110-R101862** Units: **mg/L** Analysis Date: **12/1/2010 10:13 AM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195210** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.26	0.50	20	0	106	90-110	0			
Fluoride	3.948	0.10	4	0	98.7	90-110	0			
Surr: Selenate (surr)	*5.164*	0.10	*5*	0	*103*	*85-115*	0			

LCSD Sample ID: **WLCSDW2-120110-R101862** Units: **mg/L** Analysis Date: **12/1/2010 10:35 AM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195211** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.28	0.50	20	0	106	90-110	21.26	0.0846	20	
Fluoride	3.96	0.10	4	0	99	90-110	3.948	0.303	20	
Surr: Selenate (surr)	*5.147*	0.10	*5*	0	*103*	*85-115*	5.164	*0.33*	*20*	

MS Sample ID: **1011965-01BMS** Units: **mg/L** Analysis Date: **12/1/2010 02:34 PM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195222** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	72.57	0.50	10	63.06	95.1	80-120	0			O
Fluoride	5.465	0.10	2	3.577	94.4	80-120	0			
Surr: Selenate (surr)	*5.611*	0.10	*5*	0	*112*	*85-115*	0			

MS Sample ID: **1011638-01DMS** Units: **mg/L** Analysis Date: **12/1/2010 05:06 PM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195228** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	165.5	0.50	10	156.7	87.8	80-120	0			EO
Fluoride	2.254	0.10	2	0.199	103	80-120	0			
Surr: Selenate (surr)	*5.347*	0.10	*5*	0	*107*	*85-115*	0			

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101862** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **1011965-01BMSD** Units: **mg/L** Analysis Date: **12/1/2010 02:55 PM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195223** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	72.82	0.50	10	63.06	97.5	80-120	72.57	0.341	20	O
Fluoride	5.475	0.10	2	3.577	94.9	80-120	5.465	0.183	20	
Surr: Selenate (surr)	*5.626*	0.10	*5*	0	*113*	*85-115*	5.611	*0.267*	*20*	

MSD Sample ID: **1011638-01DMSD** Units: **mg/L** Analysis Date: **12/1/2010 05:27 PM**
Client ID: Run ID: **ICS3K2_101201A** SeqNo: **2195229** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	165	0.50	10	156.7	82.8	80-120	165.5	0.303	20	EO
Fluoride	2.245	0.10	2	0.199	102	80-120	2.254	0.4	20	
Surr: Selenate (surr)	*5.336*	0.10	*5*	0	*107*	*85-115*	5.347	*0.206*	*20*	

The following samples were analyzed in this batch:

1011569-03C	1011569-04C	1011569-08C
1011569-10C	1011569-11C	1011569-14C

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

Client: Conestoga-Rovers & Associates
Work Order: 1011569
Project: CEMC Cooper-JAL - SSOW - 039123

QC BATCH REPORT

Batch ID: **R101877** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-120110-R101877** Units: **mg/L** Analysis Date: **12/2/2010 03:55 AM**
Client ID: Run ID: **ICS3000_101201B** SeqNo: **2195744** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Selenate (surr)	*5.064*	0.10	*5*	0	*101*	*85-115*	0			

LCS Sample ID: **WLCSW1-120110-R101877** Units: **mg/L** Analysis Date: **12/2/2010 04:37 AM**
Client ID: Run ID: **ICS3000_101201B** SeqNo: **2195745** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.858	0.10	8	0	98.2	90-110	0			
Surr: Selenate (surr)	*5.129*	0.10	*5*	0	*103*	*85-115*	0			

LCSD Sample ID: **WLCSDW1-120110-R101877** Units: **mg/L** Analysis Date: **12/2/2010 04:58 AM**
Client ID: Run ID: **ICS3000_101201B** SeqNo: **2195746** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.868	0.10	8	0	98.4	90-110	7.858	0.127	20	
Surr: Selenate (surr)	*5.138*	0.10	*5*	0	*103*	*85-115*	5.129	*0.175*	*20*	

MS Sample ID: **1011569-14AMS** Units: **mg/L** Analysis Date: **12/2/2010 05:40 AM**
Client ID: **MW-11 110910** Run ID: **ICS3000_101201B** SeqNo: **2195748** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.596	0.10	4	1.793	95.1	80-120	0			
Surr: Selenate (surr)	*4.82*	0.10	*5*	0	*96.4*	*85-115*	0			

MSD Sample ID: **1011569-14AMSD** Units: **mg/L** Analysis Date: **12/2/2010 10:15 AM**
Client ID: **MW-11 110910** Run ID: **ICS3000_101201B** SeqNo: **2195751** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.575	0.10	4	1.793	94.6	80-120	5.596	0.376	20	
Surr: Selenate (surr)	*4.807*	0.10	*5*	0	*96.1*	*85-115*	4.82	*0.27*	*20*	

The following samples were analyzed in this batch: 1011569-14A

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

Client: Conestoga-Rovers & Associates
Project: CEMC Cooper-JAL - SSOW - 039123
WorkOrder: 1011569

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
DCS	Detectability Check Study
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 Quantitation 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

Page 1 of ____

ALS Project Manager: | **ALS Work Order #:** 10 | 5069

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	CEMC Cooper-Jal	A	Dissolved Metals (6020/7000) Ca, Mg, Na, K (Field Filtered)
Work Order		Project Number	39123	B	Anions (300) Cl, F, SO4
Company Name	Conestoga-Rovers & Associates	Bill To Company	Conestoga-Rovers & Associates	C	Nitrate (300)
Send Report To	Patricia Lynch	Invoice Attn	Patricia Lynch	D	Alkalinity
Address	6320 Rothway, Suite 100	Address	6320 Rothway, Suite 100	E	TDS
				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		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-1 111010	11-10-10	1445	H_2O	2,3,7	3	X	X	X	X	X						
2	MW-2 111210	11-12-10	1345	H_2O	2,3,7	3	X	X	X	X	X						
3	MW-2A 111110	11-11-10	1520	H_2O	2,3,7	3	X	X	X	X	X						
4	MW-3 111010	11-10-10	1100	H_2O	2,3,7	3	X	X	X	X	X						
5	MW-4 111110	11-11-10	1345	H_2O	2,3,7	3	X	X	X	X	X						
6	MW-4A 111110	11-11-10	1400	H_2O	2,3,7	3	X	X	X	X	X						
7	MW-5 111110	11-11-10	1245	H_2O	2,3,7	3	X	X	X	X	X						
8	MW-5A 111110	11-11-10	1300	H_2O	2,3,7	3	X	X	X	X	X						
9	MW-7 111010	11-10-10	1140	H_2O	2,3,7	3	X	X	X	X	X						
10	MW-8 111210	11-12-10	1300	H_2O	2,3,7	3	X	X	X	X	X						

Sampler(s) Please Print & Sign: Bruce Haymes

Shipment Method: Fed Ex

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:
	11-12-10	17:00	
Relinquished by:	Date:	Time:	Received by (Laboratory):
			11/13/10 1130
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Day TAT. Chevron site.

Cooler ID | **Cooler Temp.**

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other / EDD _____
- ☐ 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
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Fax. +1 281 530 5887

Chain of Custody Form

Page 2 of ____

☐ ALS Laboratory Group
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Holland, MI 49424-9263
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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 10 | 5c9

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	CEMC Cooper-Jal	A	Dissolved Metals (6020/7000) Ca, Mg, Na, K (Field Filtered)
Work Order		Project Number	39123	B	Anions (300) Cl, F, SO4
Company Name	Conestoga-Rovers & Associates	Bill To Company	Conestoga-Rovers & Associates	C	Nitrate (300)
Send Report To	Patricia Lynch	Invoice Attn	Patricia Lynch	D	Alkalinity
Address	6320 Rothway, Suite 100	Address	6320 Rothway, Suite 100	E	TDS
				F	Temp
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		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-9 110910	11/09/10	1600	2,3,7	→	3	X	X	X	X	X						
2	MW-9A 110910	11/09/10	1540	2,3,7	→	3	X	X	X	X	X						
3	MW-10 111010	11-10-10	~~1515~~ 1315	2,3,7	→	3	X	X	X	X	X						
4	MW-11 110910	11-09-10	1520	2,3,7	→	3	X	X	X	X	X						
5	MW-12 110910	11-09-10	1420	2,3,7	→	3	X	X	X	X	X						
6	MW-13 110910	11-09-10	1300	2,3,7	→	3	X	X	X	X	X						
7	RW-1 111110	11-11-10	1430	2,3,7	→	3	X	X	X	X	X						
8	RW-2 111010	11-10-10	1400	2,3,7	→	3	X	X	X	X	X						
9	Dup 111210	11-12-10	—	2,3,7	→	3	X	X	X	X	X						
10	Temp	—	—	7	→	3						X					

Sampler(s) Please Print & Sign: Brett Hagues

Shipment Method: Fed Ex

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

Results Due Date:

Relinquished by:	Date: 11-12-10	Time: 17:03	Received by:	Notes: 10 Day TAT. Chevron site.
Relinquished by:	Date:	Time:	Received by (Laboratory): P.S.H 11/13/10 1150	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 / EDD _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other Ice 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.
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ALS Environmental

Sample Receipt Checklist

Client Name: **CRA-HOU** Date/Time Received: **13-Nov-10 11:30**

Work Order: **1011569** Received by: **RDH**

Checklist completed by Robert D. Haris (eSignature) 15-Nov-10 (Date) Reviewed by: Heba Comb (eSignature) 16-Nov-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):	2.3c,2.9c,1.9c,2.6c	002	
Cooler(s)/Kit(s):	3640,3351,3638,3620		
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:

1011569

This portion can be removed for Recipient's records.

Date	11-12-10
FedEx Tracking Number	873161743508
Sender's Name	Bryce Haynes
Phone	432 686-0086
Company	CRA
Address	2135 S. Loop 250 W.
City	Midland
State	TX
ZIP	79703
Your Internal Billing Reference	

ALS Environmental ...210 Tel. Fax.

CUSTODY SEAL 3660

Date: 11-12-10 Name: Bryce Haynes Company: CRA

Seal Broken By: RH Date: 11/13/10

11-13 3508

RT 833

This portion can be removed for Recipient's records.

Date	11-12-10
FedEx Tracking Number	873161743493
Sender's Name	Bryce Haynes
Phone	432 686-0086
Company	CRA
Address	2135 S. Loop 250 W.
City	Midland
State	TX
ZIP	79703
Your Internal Billing Reference	

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

CUSTODY SEAL 3351

Date: 11-12-10 Time:
Name: Bryce Haynes
Company: CRA

Seal Broken By: RH Date: 11/13/10

1011569

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

Date 11-12-10 FedEx Tracking Number 873163588316

Sender's Name Bryce Haynes Phone 432 686-0086

Company CRA

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

Midland State TX ZIP 79705

Your Internal Billing Reference

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

CUSTODY SEAL 3586

Date: 11-12-10 Time:

Name: Bryce Haynes

Company: CRA

Seal Broken By:

Date: 11/18/10

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

Date 11-12-10 FedEx Tracking Number 873163587982

Sender's Name Bryce Haynes Phone 432 686-0086

Company CRA

Address 2135 S. Loop 250 W

Midland State TX ZIP 79705 Dept/Floor/Suite/Room

Your Internal Billing Reference

FedEx Saturday Delivery 10/04 MWI 151966 10/0

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

CUSTODY SEAL 3620

Date: 11-12-10 Time:

Name: Bryce Haynes

Company: CRA

Seal Broken By:

Date: