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REPORTS

DATE:

2005

Larson & Associates, Inc.
Environmental Consultants

April 25, 2005

Mr. Wayne Price
Environmental Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Annual Groundwater Monitoring Report, ChevronTexaco Exploration and Production Company, Vacuum Field Unit, Case #1R279, NE/4, Section 1, Township 18 South, Range 34 East, Lea County, New Mexico

Dear Mr. Price:

Please find enclosed a copy of the above-referenced report. The report is submitted on behalf of ChevronTexaco Exploration and Production Company, and presents the results of annual groundwater monitoring conducted by Larson and Associates, Inc. Please call Scott Toner at (432) 687-7318 or myself at (432) 687-0901 if you have questions.

Sincerely,
Larson and Associates, Inc.

Cindy K. Crain

Cindy K. Crain, CPG
Project Manager

cc: Scott Toner - ChevronTexaco

ANNUAL GROUNDWATER MONITORING REPORT
BUCKEYE VACUUM FIELD UNIT, CASE #1R279
LEA COUNTY, NEW MEXICO

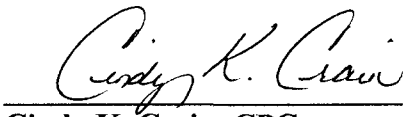
Prepared for:

ChevronTexaco Exploration and Production Company
15 Smith Road
Midland, Texas

Prepared by:

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901

April 25, 2005



Cindy K. Crain, CPG
Project Manager

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A. Laboratory Analysis and Chain of Custody Documentation

B. Hydrograph of Chloride Concentrations

507 North Marienfeld, Suite 202 ◆ Midland, Texas 79701 ◆ Ph. (432) 687-0901 ◆ Fax (432) 687-0456

Annual Groundwater Monitoring Report
Buckeye Vacuum Field Unit, Case #1R279
Lea County, New Mexico

1.0 INTRODUCTION

ChevronTexaco Exploration and Production Company (ChevronTexaco), as successor to Texaco Exploration and Production, Inc. (Texaco) has retained Larson and Associates, Inc. (LA) to conduct groundwater remediation and monitoring activities at the Buckeye Vacuum Field Unit (Site). The Site is located south of Buckeye, New Mexico, and is situated in the northeast quarter (NE/4), Section 1, Township 18 South, Range 34 East, Lea County, New Mexico. Figure 1 presents a Site location and topographic map.

2.0 BACKGROUND

In 1989, a total of twenty-three (23) monitoring wells were installed at the Site in order to determine the source and delineate the extent of a chloride impact to groundwater. Two extraction wells (RW-1 and RW-2) were also installed, and continuously pumped to remediate groundwater at the Site. A casing leak from producing well VG SAU #58 was determined to be the source of the chloride, and was repaired in 1990. Producing well VG SAU #58 was plugged and abandoned in 2000.

Groundwater monitoring of all monitoring wells (TW-1 through TW-23) and two recovery wells (RW-1 and RW-2) was conducted in 1990 and 1998. In 1999, thirteen (13) monitoring wells were plugged and abandoned, and the remaining ten (10) monitoring wells at the Site were sampled on a quarterly basis. Monitoring well TW-23 was sampled on a monthly basis. As directed by the New Mexico Oil Conservation Division (NMOCD), six monitoring wells and two (2) extraction wells were sampled on a semi-annual basis during 2000 and 2001, but well TW-23 was sampled quarterly. Pumping from wells RW-1 and RW-2 ceased in 2001, and a third extraction well (RW-3), located in the vicinity of monitoring well TW-23, was installed in 2001. ChevronTexaco immediately began pumping water from well RW-3. Groundwater monitoring continued at the Site during 2002, following a sampling schedule directed by the NMOCD. A 2002 – Groundwater Monitoring Summary and Closure Report, prepared by Highlander Environmental Corp. (Highlander)

was submitted to the NMOCD on December 20, 2002, and requested closure. In a letter from the NMOCD dated March 19, 2003, Site closure was denied, and continued monitoring of the wells at the Site was directed. LA conducted groundwater monitoring at the Site during 2003, and submitted an Annual Groundwater Monitoring Report, dated May 10, 2004, to the NMOCD. At the time of the report, monitoring wells TW-10, TW-11, TW-13, TW-14, TW-17, TW-19 and TW-20 had shown concentrations of chloride below the NMWQCC standard of 250 mg/L for the four (4) previous quarters. ChevronTexaco proposed that those wells be sampled for chloride and TDS on a semi-annual (twice yearly) basis, and that monitoring wells TW-9, TW-15 and TW-23 continue to be sampled quarterly. The monitoring schedule was approved by the NMOCD in a letter dated September 30, 2004. Groundwater is currently pumped from well RW-3 for six (6) hours and off for 48 hours to influence remediation in the vicinity of well TW-23.

Groundwater monitoring will continue at the Site until chloride concentrations in groundwater have been remediated to concentrations below the New Mexico Water Quality Control Commission (NMWQCC) standards for a minimum of four (4) consecutive quarters or four (4) consecutive longer term sampling events.

3.0 CURRENT ACTIVITIES

3.1 Groundwater Monitoring

LA completed quarterly monitoring at the Site for the period of March 2004 through March 2005. Depth to groundwater measurements and groundwater samples were collected from ten (10) monitoring wells (TW-9 through TW-11, TW-13 through TW-15, TW-17, TW-19, TW-20, and TW-23) and two (2) extraction wells (RW-2 and RW-3) on May 26, 27 and 28, 2004 (1st quarter), August 4, 5 and 6, 2004 (2nd quarter), and March 2 and 3, 2005 (4th quarter). Groundwater samples were not collected for the third quarter monitoring event (November 2004).

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Depth to groundwater ranged from 123.06 feet (TW-15) to 128.69 feet (TW-20) below top of casing (TOC) on May 26, 2004, from 123.07 feet (TW-15) to 128.67 feet (TW-20) below TOC on August 4, 2004, and from 122.18 feet (TW-15) to 127.79 feet (TW-9 and TW-20) below TOC on March 5, 2005. The groundwater gradient was approximately 0.0019 feet per foot during each monitoring event, with the groundwater flow being consistently from the southwest to the northeast. Table 1 provides a summary of depth to groundwater measurements. Figure 3 shows the groundwater gradient on May 26, 2004. Figure 5 shows the groundwater gradient on August 4, 2004. Figure 7 shows the groundwater gradient on March 2, 2005.

Groundwater samples were collected during each event, from ten (10) monitoring wells (TW-9 through TW-11, TW-13 through TW-15, TW-17, TW-19, TW-20, and TW-23) and two (2) recovery wells (RW-2 and RW-3). Duplicate samples were collected on May 27, 2004 from monitoring well TW-13, from recovery well RW-2 on May 28, 2004, from monitoring well TW-11 on August 5, 2004, from recovery well RW-2 on August 6, 2004, and from monitoring well TW-20 on March 3, 2005. Groundwater samples from the first and second quarterly events were delivered under chain-of-custody control to TraceAnalysis, Inc. (Trace), located in Lubbock, Texas, and analyzed for chloride and total dissolved solids (TDS). Samples for the fourth quarterly event were analyzed for chloride and TDS by Environmental Lab of Texas, Inc. (ELOT), located in Odessa, Texas. Prior to sample collection, the wells were purged of a minimum of three (3) casing volumes of groundwater. The groundwater samples were collected using dedicated disposable PVC bailers. Table 1 presents a summary of the chloride and TDS analysis. Appendix A presents the laboratory report.

Referring to Table 1, chloride concentrations were below the NMWQCC domestic water quality standard of 250 milligrams per liter (mg/L) in groundwater samples from all wells during each event,

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except wells TW-23 and RW-3. The chloride concentrations in samples from well TW-23 were 617 milligrams per liter (mg/L) in May 2004, 919 mg/L (August 2004) and 656 mg/L (March 2005). The TDS concentrations in groundwater from well TW-23 were 1,710 mg/L (May 2004), 2,000 mg/L (August 2004) and 1,680 mg/L (March 2005). The chloride levels in well RW-3 were 338 mg/L (May 2004), 700 mg/L (August 2004) and 873 mg/L (March 2005). The TDS levels in well RW-3 were 1,620 mg/L (August 2004) and 1,710 mg/L (March 2005). The chloride and TDS levels in groundwater from wells TW-23 and RW-3 exceeded the New Mexico Water Quality Control Commission (NMWQCC) domestic water quality standards of 250 mg/L and 1,000 mg/L, respectively.

3.2 Waste Management and Disposition

Purged groundwater from the sampling activities was disposed at an NMOCD permitted salt water disposal facility operated by Chapparel Services, Inc., located in Eunice, New Mexico. Approximately 30 gallons of purged groundwater was disposed following each sampling event, for a total of approximately 90 gallons.

3.3 Groundwater Remediation

Groundwater from the Site is being pumped from extraction well RW-3, and utilized in the cooling system at the ChevronTexaco Carbon Dioxide (CO_2) Plant at Buckeye, New Mexico. Groundwater pumping from extraction well RW-3 was stopped in October 2002 to allow groundwater to stabilize, and pumping resumed on June 26, 2003. Well RW-3 is pumping on an alternating pumping (6 hours) and recovery (48 hours) schedule approved by the NMOCD, in order to flush residual chloride from the capillary zone in the vicinity of well VG SAU #58. Depth to groundwater measurements were collected frequently from all monitoring wells and recovery wells at the Site to observe any effects in groundwater levels caused by the pumping of extraction well RW-3, and revealed that

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intermittent pumping is affecting the groundwater contaminate plume in the immediate vicinity of the source area. Table 1 presents a summary of depth to groundwater levels.

4.0 CONCLUSIONS

1. Depth to groundwater ranged from 123.06 feet (TW-15) to 128.69 feet (TW-20) below top of casing (TOC) on May 26, 2004.
2. Depth to groundwater ranged from 123.07 feet (TW-15) to 128.67 feet (TW-20) below TOC on August 4, 2004.
3. Depth to groundwater ranged from 122.18 feet (TW-15) to 127.79 feet (TW-9 and TW-20) below TOC on March 5, 2005.
4. The groundwater gradient was approximately 0.0019 feet per foot during each monitoring event, and groundwater flowed consistently from the southwest to the northeast.
5. From the May 2004 sampling event, chloride concentrations were below the NMWQCC standard of 250 mg/L in groundwater from all sampled wells, except well TW-23 (617 mg/L) and RW-3 (338 mg/L). Concentrations of TDS in groundwater collected from all wells were below the NMWQCC standard of 1,000 mg/L, except the sample collected from well TW-23 (1,710 mg/L).
6. From the August 2004 sampling event, chloride concentrations were below the NMWQCC standard of 250 mg/L in groundwater from all sampled wells, except monitoring well TW-23 (919 mg/L) and recovery well RW-3 (700 mg/L). Concentrations of TDS in groundwater collected from all wells were below the NMWQCC standard of 1,000 mg/L, except the samples collected from wells TW-23 (2,000 mg/L) and RW-3 (1,620 mg/L).
7. From the March 2005 sampling event, chloride concentrations were below the NMWQCC domestic water quality standard of 250 mg/L in groundwater samples from all monitoring wells except monitoring well TW-23 (656 mg/L) and recovery well RW-3 (873 mg/L).

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Concentrations of TDS in groundwater collected from all wells were below the NMWQCC standard of 1,000 mg/L, except the samples collected from wells TW-23 (1,680 mg/L) and RW-3 (1,710 mg/L).

5.0 RECOMMENDATIONS

ChevronTexaco proposes to continue groundwater monitoring of the ten (10) monitoring wells associated with the Site until groundwater from all monitoring wells shows concentrations of chloride below the NMWQCC standard for four (4) consecutive quarters.

Monitoring wells TW-10, TW-11, TW-13, TW-14, TW-17, TW-19, and TW-20 have shown concentrations of chloride below the NMWQCC standard of 250 mg/L for at least the last four (4) quarters. ChevronTexaco proposes that these wells be sampled for chloride and TDS on an annual (once yearly) basis. Monitoring wells TW-9 and TW-15 have shown concentrations of chloride below the NMWQCC standard of 250 mg/L for the last three (3) quarters and are scheduled for quarterly monitoring in June 2005. If chloride concentrations are below the NMWQCC standard during the June 2005 monitoring event, ChevronTexaco proposes that well TW-9 also be placed on an annual monitoring schedule, and well TW-15 continue to be monitored quarterly, due to slightly increasing chloride concentrations reported in groundwater during the last three (3) monitoring events. Monitoring well TW-23 has not shown chloride concentrations below the NMWQCC standard for four (4) consecutive sampling events, and will continue to be sampled quarterly for chloride and TDS. ChevronTexaco may modify the pumping interval at recovery well RW-3 to increase flushing of chloride in the immediate vicinity of monitoring well TW-23.

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TABLE

Table 1
Summary of Field and Laborartory Data
ChevronTexaco Inc., Vacuum Field Unit, Case #1R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-9	15-May-03	129.01	--	--	120	--
	23-Jun-03	---	--	--	--	--
	02-Jul-03	128.79	--	--	--	--
	11-Jul-03	128.92	--	--	--	--
	08-Aug-03	128.64	--	--	--	--
	26-Aug-03	128.69	--	--	--	--
	3-Sep-03	128.85	1443.20	24,655	--	--
	18-Sep-03	128.76	1476.00	31,920	--	--
	3-Oct-03	128.77		38,255	--	--
	7-Oct-03	128.97	1489.10	41,083	--	--
	13-Oct-03	129.05	1469.40	43,965	--	--
	21-Oct-03	128.92	1436.20	46,962	--	--
	6-Nov-03	129.16	1628.80	55,594	--	--
	18-Nov-03	128.97	0.00	61,607	442	892
	3-Dec-03	128.98	1653.00	69,530	--	--
	23-Dec-03	128.69	1416.90	78,414	--	--
	21-Jan.-04	128.77	1666.20	94,242	--	--
	2-Feb.-04	128.77	1469.00	102,200	--	--
	11-Feb.-04	128.62	0.00	107,770	420	972
	17-Feb-04	128.49	0.00	107,770	--	--
	9-Mar-04	128.76	0.00	115,194	--	--
	18-Mar-04	128.77	1489.00	121,755	--	--
	05-Ap-04	128.75	0.00	132,779	--	--
	12-Apr-04	128.95	1587.50	138,374	--	--
	28-Apr-04	128.59	0.00	140,682	--	--
	7-May-04	128.69	1489.10	142,175	--	--
	13-May-04	128.62	0.00	142,913	--	--
	27-May-04	128.65	0.00	145,015	88.2	461
	3-Jun-04	128.72	1403.80	146,427	--	--
	8-Jul-04	128.79	0.00	151,757	--	--
	20-Jul-04	128.62	0.00	521,213	--	--
	6-Aug-04	128.64	0.00	522,877	49	385
	17-Aug-04	128.66	0.00	524,952	---	---
	24-Aug-04	128.59	0.00	525,793	---	---
	30-Aug-04	128.59	0.00	527,041	---	---
	8-Sep-04	128.55	0.00	528,688	---	---
	13-Sep-04	128.58	0.00	529,509	---	---
	20-Sep-04	128.52	0.00	530,699	---	---
	21-Oct-04	128.33	0.00	535,744	---	---
	26-Oct-04	128.31	0.00	536,895	---	---
	12-Nov-04	128.22	1653.10	539,347	---	---
	5-Jan-05	128.90	0.00	550,929	---	---
	3-Mar-05	127.79	0.00		44.5	239
TW-10	15-May-03	127.99	--	--	44.3	--
	23-Jun-03	127.75	--	--	--	--
	02-Jul-03	128.02	--	--	--	--
	11-Jul-03	128.09	--	--	--	--
	08-Aug-03	127.71	--	--	--	--
	26-Aug-03	127.80	--	--	--	--
	3-Sep-03	128.07	1443.20	24,655	--	--
	18-Sep-03	128.01	1476.00	31,920	--	--
	3-Oct-03	127.83	1436.60	38,255	--	--
	7-Oct-03	128.11	1489.10	41,083	--	--
	13-Oct-03	128.12	1469.40	43,965	--	--
	21-Oct-03	127.97	1436.20	46,962	--	--
	6-Nov-03	128.29	1626.80	55,594	--	--
	19-Nov-03	128.11	0.00	61,607	59.1	369
	3-Dec-03	128.19	1653.00	69,530	--	--
	23-Dec-03	127.83	1416.90	78,414	--	--
	21-Jan.-04	127.94	1666.20	94,242	--	--
	2-Feb.-04	127.05	1469.00	102,200	--	--
	11-Feb.-04	127.69	0.00	107,770	52.9	372
	17-Feb-04	127.56	0.00	107,770	--	--
	9-Mar-04	127.92	0.00	115,194	--	--
	18-Mar-04	127.99	1489.10	121,755	--	--
	05-Ap-04	127.80	0.00	132,779	--	--
	12-Apr-04	128.95	1587.50	138,374	--	--
	28-Apr-04	127.61	0.00	140,682	--	--
	7-May-04	126.88	1489.10	142,175	--	--

Table 1
Summary of Field and Laborartory Data
ChevronTexaco Inc., Vacuum Field Unit, Case #1R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-10	13-May-04	127.66	0.00	142,913	--	--
	28-May-04	127.66	0.00	145,015	39.9	344
	3-Jun-04	126.79	1403.80	146,427	--	--
	8-Jul-04	127.79	0.00	151,757	--	--
	20-Jul-04	127.66	0.00	521,213	--	--
	6-Aug-04	127.69	0.00	522,877	45.4	354
	17-Aug-04	127.68	0.00	524,952	--	--
	24-Aug-04	127.62	0.00	525,793	--	--
	30-Aug-04	127.62	0.00	527,041	--	--
	8-Sep-04	127.59	0.00	528,688	--	--
	13-Sep-04	126.75	0.00	529,509	--	--
	20-Sep-04	127.57	0.00	530,699	--	--
	21-Oct-04	127.28	0.00	535,744	--	--
	26-Oct-04	127.28	0.00	536,895	--	--
	12-Nov-04	127.21	1659.60	539,399	--	--
	5-Jan-05	126.92	0.00	550,929	--	--
	3-Mar-05	126.80	0.00		33	226
TW-11	15-May-03	128.97	--	--	35.4	--
	23-Jun-03	128.64	--	--	--	--
	02-Jul-03	129.11	--	--	--	--
	11-Jul-03	129.04	--	--	--	--
	08-Aug-03	128.63	--	--	--	--
	26-Aug-03	128.71	--	--	--	--
	3-Sep-03	129.15	1443.20	24,655	--	--
	18-Sep-03	127.08	1476.00	31,920	--	--
	3-Oct-03	128.72	1436.60	38,255	--	--
	7-Oct-03	129.10	1489.10	41,083	--	--
	13-Oct-03	129.06	1469.40	43,965	--	--
	21-Oct-03	127.83	1436.20	46,962	--	--
	6-Nov-03	129.21	1626.80	55,594	--	--
	19-Nov-03	129.14	0.00	61,607	25.3	307
	3-Dec-03	129.20	1653.00	69,530	--	--
	23-Dec-03	128.69	1416.90	78,414	--	--
	21-Jan.-04	128.97	1666.20	94,242	--	--
	2-Feb.-04	128.87	1469.00	102,200	--	--
	11-Feb.-04	128.67	0.00	107,770	83.8	610
	17-Feb-04	128.37	0.00	107,770	--	--
	9-Mar-04	128.92	0.00	115,194	--	--
	18-Mar-04	128.97	1489.10	121,755	--	--
	05-Ap-04	126.61	0.00	132,779	--	--
	12-Apr-04	129.20	1587.50	138,374	--	--
	28-Apr-04	128.34	0.00	140,682	--	--
	7-May-04	128.66	1489.10	142,175	--	--
	13-May-04	124.83	0.00	142,913	--	--
	28-May-04	128.39	0.00	145,015	27.0	274
	3-Jun-04	128.69	1403.80	146,427	--	--
	8-Jul-04	128.45	0.00	151,757	--	--
	20-Jul-04	128.37	0.00	521,213	--	--
	5-Aug-04	128.42	0.00	522,877	30.1	269
	17-Aug-04	128.43	0.00	524,952	--	--
	24-Aug-04	128.35	0.00	525,793	--	--
	30-Aug-04	128.36	0.00	527,041	--	--
	8-Sep-04	128.31	0.00	528,688	--	--
	13-Sep-04	128.37	0.00	529,509	--	--
	20-Sep-04	127.57	0.00	530,699	--	--
	21-Oct-04	127.91	0.00	535,744	--	--
	26-Oct-04	127.96	0.00	536,895	--	--
	12-Nov-04	127.88	1659.60	539,347	--	--
	5-Jan-05	127.61	0.00	550,929	--	--
	3-Mar-05	127.56	0.00		28.4	174

Table 1
Summary of Field and Laborartory Data
ChevronTexaco Inc., Vacuum Field Unit, Case #1R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-13	15-May-03	128.85	--	--	39.0	--
	23-Jun-03	128.77	--	--	--	--
	02-Jul-03	128.94	--	--	--	--
	11-Jul-03	128.93	--	--	--	--
	08-Aug-03	128.75	--	--	--	--
	26-Aug-03	128.80	--	--	--	--
	3-Sep-03	128.94	1443.20	24,655	--	--
	18-Sep-03	128.91	1476.00	31,920	--	--
	3-Oct-03	128.70	1436.60	38,255	--	--
	7-Oct-03	128.86	1489.10	41,083	--	--
	13-Oct-03	128.86	1469.40	43,965	--	--
	21-Oct-03	128.82	1436.20	46,962	--	--
	6-Nov-03	128.97	1626.80	55,594	--	--
	18-Nov-03	128.89	0.00	61,607	64.3	560
	3-Dec-03	128.90	1653.00	69,530	--	--
	23-Dec-03	128.67	1416.90	78,414	--	--
	21-Jan.-04	128.73	1666.20	94,242	--	--
	2-Feb.-04	128.77	1469.00	102,200	--	--
	11-Feb.-04	128.67	0.00	107,770	83.8	610
	17-Feb-04	128.54	0.00	107,770	--	--
	9-Mar-04	128.82	0.00	115,194	--	--
	18-Mar-04	128.87	1489.10	121,755	--	--
	05-Ap-04	128.74	0.00	132,779	--	--
	12-Apr-04	129.01	1587.50	138,374	--	--
	28-Apr-04	123.09	0.00	140,682	--	--
	7-May-04	128.70	1489.10	142,175	--	--
	13-May-04	128.67	0.00	142,913	--	--
	27-May-04	128.67	0.00	145,015	84.5	625
	3-Jun-04	128.79	1403.80	146,427	--	--
	8-Jul-04	128.75	0.00	151,757	--	--
	20-Jul-04	128.70	0.00	521,213	--	--
	6-Aug-04	128.66	0.00	522,877	74.8	596
	17-Aug-04	128.67	0.00	524,952	--	--
	24-Aug-04	128.62	0.00	525,793	--	--
	30-Aug-04	128.69	0.00	527,041	--	--
	8-Sep-04	128.61	0.00	528,688	--	--
	13-Sep-04	128.99	0.00	529,509	--	--
	20-Sep-04	129.58	0.00	530,699	--	--
	21-Oct-04	128.36	0.00	535,744	--	--
	26-Oct-04	128.34	0.00	536,895	--	--
	12-Nov-04	128.11	1659.60	539,399	--	--
	5-Jan-05	127.78	0.00	550,929	--	--
	3-Mar-05	127.74	0.00		90	502
TW-14	15-May-03	126.78	--	--	65.0	--
	23-Jun-03	126.55	--	--	--	--
	02-Jul-03	127.35	--	--	--	--
	11-Jul-03	126.92	--	--	--	--
	08-Aug-03	126.52	--	--	--	--
	26-Aug-03	126.66	--	--	--	--
	3-Sep-03	127.29	1443.20	24,655	--	--
	18-Sep-03	127.25	1476.00	31,920	--	--
	3-Oct-03	126.75	1436.60	38,255	--	--
	7-Oct-03	127.32	1489.10	41,083	--	--
	13-Oct-03	127.34	1469.40	43,965	--	--
	21-Oct-03	126.95	1436.20	46,962	--	--
	6-Nov-03	127.47	1626.80	55,594	--	--
	19-Nov-03	127.28	0.00	61,607	25.4	368
	3-Dec-03	127.46	1653.00	69,530	--	--
	23-Dec-03	126.81	1416.90	78,414	--	--
	21-Jan.-04	127.17	1666.20	94,242	--	--
	2-Feb.-04	127.04	1469.00	102,200	--	--
	11-Feb.-04	127.32	0.00	107,770	29.6	339
	17-Feb-04	126.35	0.00	107,770	--	--
	9-Mar-04	127.01	0.00	115,194	--	--
	18-Mar-04	127.19	1489.10	121,755	--	--
	05-Ap-04	127.23	0.00	132,779	--	--
	12-Apr-04	127.47	1587.50	138,374	--	--
	28-Apr-04	126.39	0.00	140,682	--	--

Table 1
Summary of Field and Laborartory Data
ChevronTexaco Inc., Vacuum Field Unit, Case #1R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-14	7-May-04	126.88	1489.10	142,175	--	--
	13-May-04	126.42	0.00	142,913	--	--
	28-May-04	126.44	0.00	145,015	30.3	346
	3-Jun-04	126.82	1403.80	146,427	--	--
	8-Jul-04	126.51	0.00	151,757	--	--
	20-Jul-04	126.41	0.00	521,213	--	--
	5-Aug-04	126.48	0.00	522,877	32.7	347
	17-Aug-04	126.54	0.00	524,952	--	--
	24-Aug-04	126.39	0.00	525,793	--	--
	30-Aug-04	126.39	0.00	527,041	--	--
	8-Sep-04	126.35	0.00	528,688	--	--
	13-Sep-04	126.31	0.00	529,509	--	--
	20-Sep-04	126.36	0.00	530,699	--	--
	21-Oct-04	125.90	0.00	535,744	--	--
	26-Oct-04	125.94	0.00	536,895	--	--
	12-Nov-04	126.09	1659.60	539,399	--	--
	5-Jan-05	125.54	0.00	550,929	--	--
	3-Mar-05	125.55	0.00		87.9	340
TW-15	15-May-03	123.50	--	--	88.6	--
	23-Jun-03	123.28	--	--	--	--
	02-Jul-03	123.58	--	--	--	--
	11-Jul-03	123.65	--	--	--	--
	08-Aug-03	123.30	--	--	--	--
	26-Aug-03	123.36	--	--	--	--
	3-Sep-03	123.67	1443.20	24,655	--	--
	18-Sep-03	123.66	1476.00	31,920	--	--
	3-Oct-03	123.39	1436.60	38,255	--	--
	7-Oct-03	123.61	1489.10	41,083	--	--
	13-Oct-03	123.61	1469.40	43,965	--	--
	21-Oct-03	123.51	1436.20	46,962	--	--
	6-Nov-03	123.75	1626.80	55,594	--	--
	19-Nov-03	123.76	0.00	61,607	561	1132
	3-Dec-03	123.75	1653.00	69,530	--	--
	23-Dec-03	123.39	1416.90	78,414	--	--
	21-Jan.-04	123.60	1666.20	94,242	--	--
	2-Feb.-04	123.50	1469.00	102,200	--	--
	11-Feb.-04	123.34	0.00	107,770	419	908
	17-Feb-04	123.11	0.00	107,770	--	--
	9-Mar-04	123.47	0.00	115,194	--	--
	18-Mar-04	123.59	1489.10	121,755	--	--
	05-Ap-04	123.32	0.00	132,779	--	--
	12-Apr-04	123.77	1587.50	138,374	--	--
	28-Apr-04	----	----	----	--	--
	7-May-04	123.32	1489.10	142,175	--	--
	13-May-04	123.12	0.00	142,913	--	--
	27-May-04	123.06	0.00	145,015	93.4	439
	3-Jun-04	123.31	1403.80	146,427	--	--
	8-Jul-04	123.17	0.00	151,757	--	--
	20-Jul-04	123.11	0.00	521,213	--	--
	5-Aug-04	123.07	0.00	522,877	102	545
	17-Aug-04	123.08	0.00	524,952	--	--
	24-Aug-04	123.05	0.00	525,793	--	--
	30-Aug-04	123.04	0.00	527,041	--	--
	8-Sep-04	122.99	0.00	528,688	--	--
	13-Sep-04	123.00	0.00	529,509	--	--
	20-Sep-04	123.01	0.00	530,699	--	--
	21-Oct-04	121.73	0.00	535,744	--	--
	26-Oct-04	121.86	0.00	536,895	--	--
	12-Nov-04	122.17	1659.60	539,399	--	--
	5-Jan-05	122.21	0.00	550,929	--	--
	3-Mar-05	122.18	0.00		189	577

Table 1
Summary of Field and Laborartory Data
ChevronTexaco Inc., Vacuum Field Unit, Case #R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-17	15-May-03	122.87	--	--	31.9	--
	23-Jun-03	125.05	--	--	--	--
	02-Jul-03	125.52	--	--	--	--
	11-Jul-03	125.55	--	--	--	--
	08-Aug-03	125.17	--	--	--	--
	26-Aug-03	125.27	--	--	--	--
	3-Sep-03	125.56	1443.20	24,655	--	--
	18-Sep-03	125.55	1476.00	31,920	--	--
	3-Oct-03	125.25	1436.60	38,255	--	--
	7-Oct-03	125.52	1489.10	41,083	--	--
	13-Oct-03	125.50	1469.40	43,965	--	--
	21-Oct-03	125.30	1436.20	46,962	--	--
	6-Nov-03	125.64	1626.80	55,594	--	--
	19-Nov-03	125.64	0.00	61,607	26.7	295
	3-Dec-03	125.64	1653.00	69,530	--	--
	23-Dec-03	125.33	1416.90	78,414	--	--
	21-Jan.-04	125.44	1666.20	94,242	--	--
	2-Feb.-04	125.35	1469.00	102,200	--	--
	11-Feb.-04	125.15	0.00	107,770	24.9	294
	17-Feb-04	124.91	0.00	107,770	--	--
	9-Mar-04	125.38	0.00	115,194	--	--
	18-Mar-04	125.43	1489.10	121,755	--	--
	05-Ap-04	125.13	0.00	132,779	--	--
	12-Apr-04	125.58	1587.50	138,374	--	--
	28-Apr-04	124.89	0.00	140,682	--	--
	7-May-04	125.06	1489.10	142,175	--	--
	13-May-04	124.95	0.00	142,913	--	--
	28-May-04	124.89	0.00	145,015	26.7	302
	3-Jun-04	125.06	1403.80	146,427	--	--
	8-Jul-04	124.89	0.00	151,757	--	--
	20-Jul-04	124.81	0.00	521,213	--	--
	5-Aug-04	124.88	0.00	522,877	29.4	306
	17-Aug-04	124.87	0.00	524,952	--	--
	24-Aug-04	124.81	0.00	525,793	--	--
	30-Aug-04	124.83	0.00	527,041	--	--
	8-Sep-04	124.79	0.00	528,688	--	--
	13-Sep-04	124.74	0.00	529,509	--	--
	20-Sep-04	124.79	0.00	530,699	--	--
	21-Oct-04	123.80	0.00	535,744	--	--
	26-Oct-04	123.95	0.00	536,895	--	--
	12-Nov-04	124.03	1659.60	539,399	--	--
	5-Jan-05	124.05	0.00	550,929	--	--
	3-Mar-05	124.06	0.00		178	565
TW-19	15-May-03	121.80	--	--	35.4	--
	23-Jun-03	125.21	--	--	--	--
	02-Jul-03	126.56	--	--	--	--
	11-Jul-03	125.62	--	--	--	--
	08-Aug-03	125.23	--	--	--	--
	26-Aug-03	125.32	--	--	--	--
	3-Sep-03	126.51	1443.20	24,655	--	--
	18-Sep-03	126.45	1476.00	31,920	--	--
	3-Oct-03	125.82	1436.60	38,255	--	--
	7-Oct-03	126.52	1489.10	41,083	--	--
	13-Oct-03	126.51	1469.40	43,965	--	--
	21-Oct-03	126.08	1436.20	46,962	--	--
	6-Nov-03	126.69	1626.80	55,594	--	--
	19-Nov-03	126.25	0.00	61,607	28.3	325
	3-Dec-03	126.77	1653.00	69,530	--	--
	23-Dec-03	125.91	1416.90	78,414	--	--
	21-Jan.-04	126.46	1666.20	94,242	--	--
	2-Feb.-04	126.21	1469.00	102,200	--	--
	11-Feb.-04	125.31	0.00	107,770	23.7	387
	17-Feb-04	125.02	0.00	107,770	--	--
	9-Mar-04	125.81	0.00	115,194	--	--
	18-Mar-04	126.40	1489.10	121,755	--	--
	05-Ap-04	125.31	0.00	132,779	--	--
	12-Apr-04	126.74	1587.50	138,374	--	--
	28-Apr-04	125.05	0.00	140,682	--	--
	7-May-04	126.07	1489.10	142,175	--	--
	13-May-04	125.15	0.00	142,913	--	--

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Summary of Field and Laborartory Data
ChevronTexaco Inc., Vacuum Field Unit, Case #R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-19	27-May-04	125.11	0.00	145,015	33.6	287
	3-Jun-04	125.82	1403.80	146,427	--	--
	8-Jul-04	125.11	0.00	151,757	--	--
	20-Jul-04	125.06	0.00	521,213	--	--
	5-Aug-04	125.14	0.00	522,877	42.8	344
	17-Aug-04	125.17	0.00	524,952	--	--
	24-Aug-04	125.05	0.00	525,793	--	--
	30-Aug-04	125.04	0.00	527,041	--	--
	8-Sep-04	124.98	0.00	528,688	--	--
	13-Sep-04	124.95	0.00	529,509	--	--
	20-Sep-04	124.99	0.00	530,699	--	--
	21-Oct-04	124.38	0.00	535,744	--	--
	26-Oct-04	123.46	0.00	536,895	--	--
	12-Nov-04	125.14	1659.60	539,399	--	--
	5-Jan-05	124.49	0.00	550,929	--	--
	3-Mar-05	124.26	0.00		54.2	224
TW-20	15-May-03	129.07	--	--	35.4	--
	23-Jun-03	128.71	--	--	--	--
	02-Jul-03	128.83	--	--	--	--
	11-Jul-03	128.80	--	--	--	--
	08-Aug-03	128.63	--	--	--	--
	26-Aug-03	128.73	--	--	--	--
	3-Sep-03	128.88	1443.20	24,655	--	--
	18-Sep-03	128.78	1476.00	31,920	--	--
	3-Oct-03	128.73	1436.60	38,255	--	--
	7-Oct-03	128.93	1489.10	41,083	--	--
	13-Oct-03	128.96	1469.40	43,965	--	--
	21-Oct-03	128.85	1436.20	46,962	--	--
	6-Nov-03	129.12	1626.80	55,594	--	--
	18-Nov-03	128.93	0.00	61,607	26.5	328
	3-Dec-03	128.94	1653.00	69,530	--	--
	23-Dec-03	128.66	1416.90	78,414	--	--
	21-Jan.-04	128.69	1666.20	94,242	--	--
	2-Feb.-04	128.78	1469.00	102,200	--	--
	11-Feb.-04	128.69	0.00	107,770	25.2	353
	17-Feb-04	128.46	0.00	107,770	--	--
	9-Mar-04	128.79	0.00	115,194	--	--
	18-Mar-04	128.79	1489.10	121,755	--	--
	05-Ap-04	128.79	0.00	132,779	--	--
	12-Apr-04	129.02	1587.50	138,374	--	--
	28-Apr-04	128.60	0.00	140,682	--	--
	7-May-04	128.72	1489.10	142,175	--	--
	13-May-04	128.66	0.00	142,913	--	--
	27-May-04	128.69	0.00	145,015	27.1	316
	3-Jun-04	128.81	1403.80	146,427	--	--
	8-Jul-04	128.76	0.00	151,757	--	--
	20-Jul-04	128.70	0.00	521,213	--	--
	6-Aug-04	128.67	0.00	522,877	31.8	338
	17-Aug-04	128.71	0.00	524,952	--	--
	24-Aug-04	128.64	0.00	525,793	--	--
	30-Aug-04	128.65	0.00	527,041	--	--
	8-Sep-04	128.59	0.00	528,688	--	--
	13-Sep-04	128.61	0.00	529,509	--	--
	20-Sep-04	128.57	0.00	530,699	--	--
	21-Oct-04	128.37	0.00	535,744	--	--
	26-Oct-04	128.34	0.00	536,895	--	--
	12-Nov-04	128.19	1659.60	539,399	--	--
	5-Jan-05	127.82	0.00	550,929	--	--
	3-Mar-05	127.79	0.00		25.3	232
TW-23	15-May-03	124.42	--	--	1440	--
	23-Jun-03	124.31	--	--	--	--
	02-Jul-03	128.53	--	--	--	--
	11-Jul-03	124.56	--	--	--	--
	08-Aug-03	124.13	--	--	--	--
	26-Aug-03	124.26	--	--	--	--
	3-Sep-03	128.02	1443.20	24,655	--	--
	18-Sep-03	128.02	1476.00	31,920	--	--
	3-Oct-03	126.93	1436.60	38,255	--	--
	7-Oct-03	128.07	1489.10	41,083	--	--

Table 1
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ChevronTexaco Inc., Vacuum Field Unit, Case #1R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
TW-23	13-Oct-03	128.03	1469.40	43,965	--	--
	21-Oct-03	127.37	1436.20	46,962	--	--
	6-Nov-03	128.27	1626.80	55,594	--	--
	19-Nov-03	125.95	0.00	61,607	300	964
	3-Dec-03	128.45	1653.00	69,530	--	--
	23-Dec-03	127.17	1416.90	78,414	--	--
	21-Jan.-04	128.12	1666.20	94,242	--	--
	2-Feb.-04	127.57	1469.00	102,200	--	--
	11-Feb.-04	124.16	0.00	107,770	117	603
	17-Feb-04	123.90	0.00	107,770	--	--
	9-Mar-04	125.20	0.00	115,194	--	--
	18-Mar-04	130.23	1489.10	121,755	--	--
	05-Ap-04	124.17	0.00	132,779	--	--
	12-Apr-04	128.30	1587.50	138,374	--	--
	28-Apr-04	123.87	0.00	140,682	--	--
	7-May-04	129.89	1489.10	142,175	--	--
	13-May-04	123.95	0.00	142,913	--	--
	27-May-04	123.94	0.00	145,015	617	1710
	3-Jun-04	125.96	1403.80	146,427	--	--
	8-Jul-04	123.99	0.00	151,757	--	--
	20-Jul-04	123.90	0.00	521,213	--	--
	5-Aug-04	124.03	0.00	522,877	919	2000
	17-Aug-04	124.10	0.00	524,952	--	--
	24-Aug-04	123.89	0.00	525,793	--	--
	30-Aug-04	123.91	0.00	527,041	--	--
	8-Sep-04	123.86	0.00	528,688	--	--
	13-Sep-04	123.89	0.00	529,509	--	--
	20-Sep-04	123.87	0.00	530,699	--	--
	21-Oct-04	123.19	0.00	535,744	--	--
	26-Oct-04	122.28	0.00	536,895	--	--
	12-Nov-04	127.01	1659.60	539,399	--	--
	5-Jan-05	123.50	0.00	550,929	--	--
	3-Mar-05	123.10	0.00		656	1680
RW-1	15-May-03	126.65	--	--	--	--
---	23-Jun-03	126.56	--	--	--	--
	02-Jul-03	127.10	--	--	--	--
	11-Jul-03	5.68	--	--	--	--
	08-Aug-03	---	0.00	519,964	--	--
	26-Aug-03	---	--	--	--	--
RW-2	15-May-03	127.21	--	--	--	--
	23-Jun-03	124.04	--	--	--	--
	02-Jul-03	127.29	--	--	--	--
	11-Jul-03	127.21	--	--	--	--
	08-Aug-03	126.85	--	--	--	--
	26-Aug-03	126.92	--	--	--	--
	3-Sep-03	127.31	1443.20	24,655	--	--
	18-Sep-03	127.26	1476.00	31,920	--	--
	3-Oct-03	127.11	1436.60	38,255	--	--
	7-Oct-03	127.40	1489.10	41,083	--	--
	13-Oct-03	127.45	1469.40	43,965	--	--
	21-Oct-03	127.25	1436.20	46,962	--	--
	6-Nov-03	127.56	1626.80	55,594	--	--
	18-Nov-03	127.32	0.00	61,607	--	--
	3-Dec-03	127.46	1653.00	69,530	--	--
	23-Dec-03	127.05	1416.90	78,414	--	--
	21-Jan.-04	127.20	1666.20	94,242	--	--
	2-Feb.-04	127.21	1469.00	102,200	--	--
	11-Feb.-04	126.84	0.00	107,770	--	--
	17-Feb-04	126.68	0.00	107,770	--	--
	9-Mar-04	127.08	0.00	115,194	--	--
	18-Mar-04	127.24	1489.10	121,755	--	--
	05-Ap-04	126.95	0.00	132,779	--	--
	12-Apr-04	127.46	1587.50	138,374	--	--
	28-Apr-04	126.77	0.00	140,682	--	--
	7-May-04	127.04	1489.10	142,175	--	--
	13-May-04	126.82	0.00	142,913	--	--
	28-May-04	126.82	0.00	145,015	30.4	306
	3-Jun-04	127.01	1403.80	146,427	--	--
	8-Jul-04	126.95	0.00	151,757	--	--

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ChevronTexaco Inc., Vacuum Field Unit, Case #1R279
Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L)	TDS (mg/L)
RW-2	20-Jul-04	126.81	0.00	521,213	--	--
	6-Aug-04	126.81	0.00	522,877	34.6	354
	17-Aug-04	126.84	0.00	524,952	--	--
	24-Aug-04	126.77	0.00	525,793	--	--
	30-Aug-04	126.79	0.00	527,041	--	--
	8-Sep-04	126.71	0.00	528,688	--	--
	13-Sep-04	127.55	0.00	529,509	--	--
	20-Sep-04	126.72	0.00	530,699	--	--
	21-Oct-04	126.40	0.00	535,744	--	--
	26-Oct-04	126.41	0.00	536,895	--	--
	12-Nov-04	126.48	1659.60	539,399	--	--
	5-Jan-05	126.15	0.00	550,929	--	--
	3-Mar-05	126.90	0.00		32.4	244
RW-3	15-May-03	124.15	--	--	--	--
	23-Jun-03	126.91	--	--	--	--
	02-Jul-03	131.44	--	--	--	--
	11-Jul-03	123.99	--	--	--	--
	08-Aug-03	123.77	0.00	14,008	--	--
	26-Aug-03	123.80	0.00	20,743	--	--
	3-Sep-03	130.35	1443.20	24,655	--	--
	18-Sep-03	130.41	1476.00	31,920	--	--
	3-Oct-03	129.30	1436.60	38,255	--	--
	7-Oct-03	130.47	1489.10	41,083	--	--
	13-Oct-03	130.41	1469.40	43,965	--	--
	21-Oct-03	129.67	1436.20	46,962	--	--
	6-Nov-03	130.82	1626.80	55,594	--	--
	18-Nov-03	125.24	0.00	61,607	--	--
	3-Dec-03	131.27	1653.00	69,530	--	--
	23-Dec-03	129.40	1416.90	78,414	--	--
	21-Jan.-04	130.92	1666.20	94,242	--	--
	2-Feb.-04	129.88	1469.00	102,200	--	--
	11-Feb.-04	123.76	0.00	107,770	--	--
	17-Feb-04	123.46	0.00	107,770	--	--
	9-Mar-04	124.53	0.00	115,194	--	--
	18-Mar-04	127.83	1489.10	121,755	--	--
	05-Ap-04	123.75	0.00	132,779	--	--
	12-Apr-04	130.97	1587.50	138,374	--	--
	28-Apr-04	123.41	0.00	140,682	--	--
	7-May-04	129.89	1489.10	142,175	--	--
	13-May-04	123.56	0.00	142,913	--	--
	27-May-04	123.50	0.00	145,015	338	854
	3-Jun-04	126.78	1403.80	146,427	--	--
	8-Jul-04	123.58	0.00	151,757	--	--
	20-Jul-04	123.50	0.00	521,213	--	--
	6-Aug-04	123.58	0.00	522,877	700	1620
	17-Aug-04	123.64	0.00	524,952	--	--
	24-Aug-04	123.46	0.00	525,793	--	--
	30-Aug-04	123.48	0.00	527,041	--	--
	8-Sep-04	123.42	0.00	528,688	--	--
	13-Sep-04	123.49	0.00	529,509	--	--
	20-Sep-04	123.44	0.00	530,699	--	--
	21-Oct-04	123.88	0.00	535,744	--	--
	26-Oct-04	122.89	0.00	536,895	--	--
	12-Nov-04	129.90	1659.60	539,399	--	--
	5-Jan-05	122.78	0.00	550,929	--	--
	3-Mar-05	122.67	0.00		873	1710
Duplicate (TW-20)	18-Nov-03	--	--	--	28.2	310
Duplicate (TW-19)	19-Nov-03	--	--	--	26.6	358
Duplicate (TW-17)	11-Feb.-04	--	--	--	25.4	295
Duplicate (TW-13)	27-May-04	--	--	--	84.3	651
Duplicate (RW-2)	28-May-04	--	--	--	30.4	348
Duplicate (TW-11)	5-Aug-04	--	--	--	29.7	272
Duplicate (RW-2)	6-Aug-04	--	--	--	34.1	312
Duplicate (TW-20)	3-Mar-05	--	--	--	42.5	203

Notes:
Analysis performed by Environmental Lab of Texas, Inc. and TraceAnalysis, Inc. (5/04 and 8/04)
1. mg/L: Milligrams per liter
2. --: No data available
3. TDS: Total dissolved solids
EW-3 pumping

FIGURES

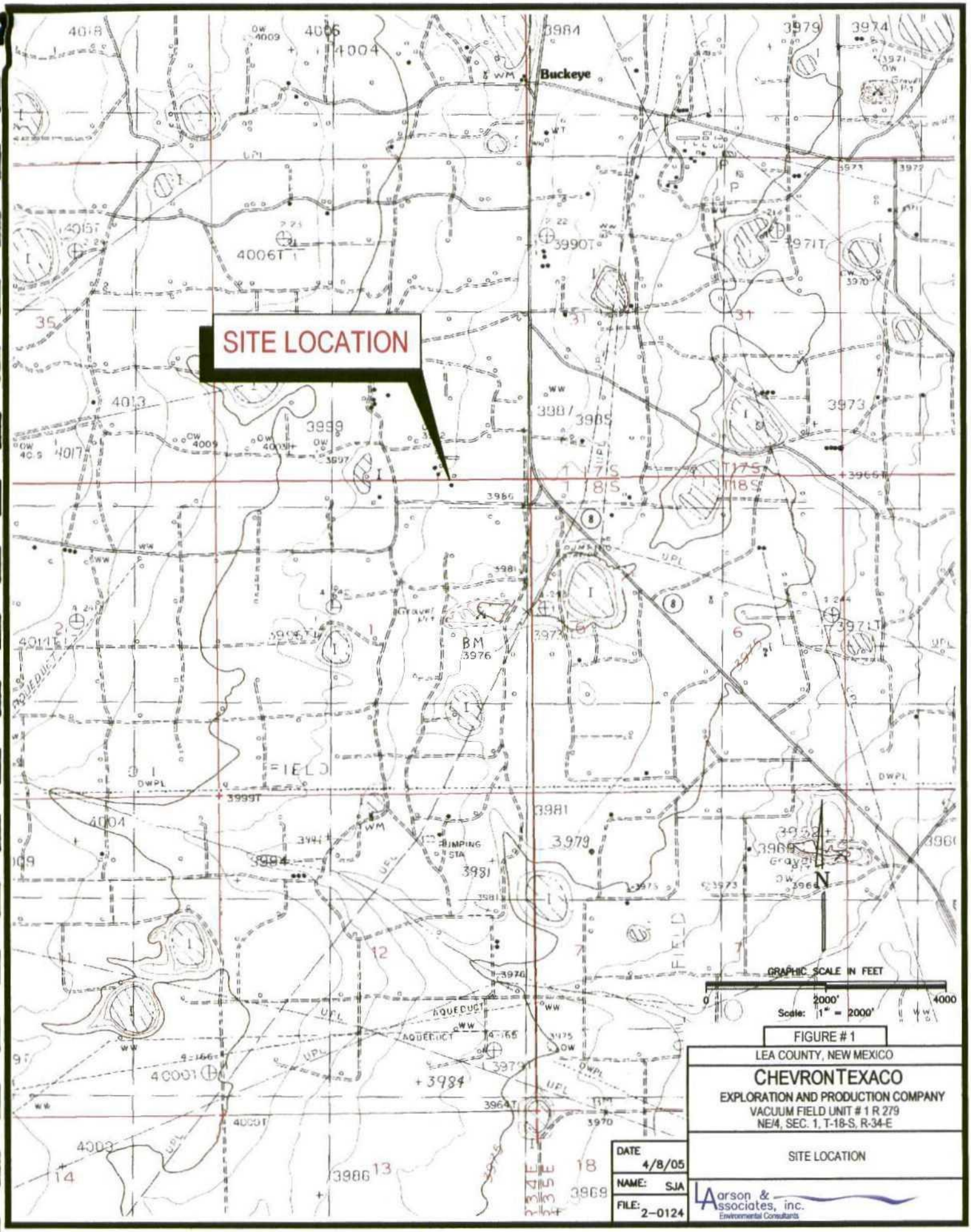


FIGURE # 1

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY

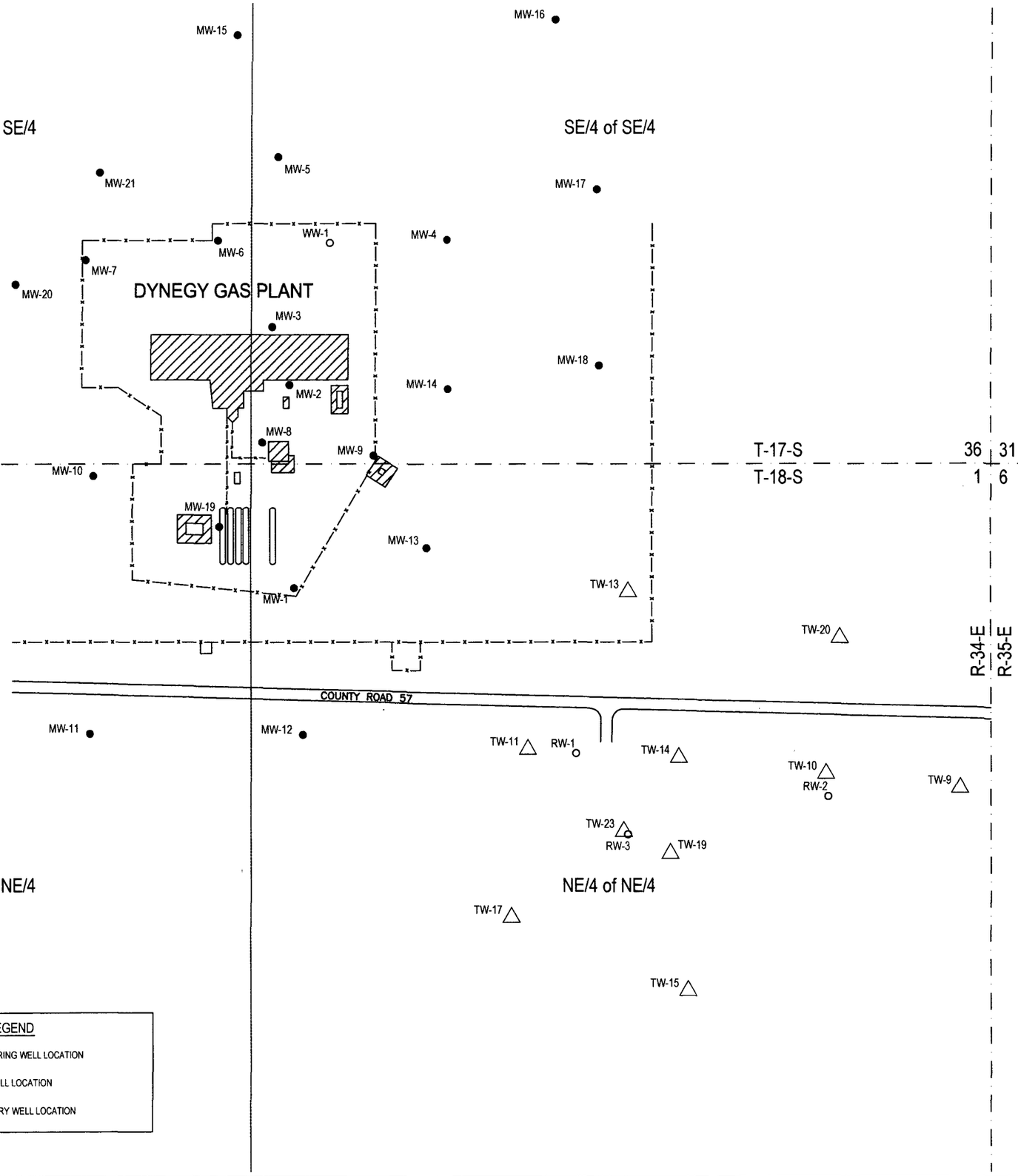
VACUUM FIELD UNIT # 1 R 279

NE/4, SEC. 1, T-18-S, R-34-E

SITE LOCATION

DATE	4/8/05
NAME:	SJA
FILE:	2-0124

Larson & Associates, inc.
Environmental Consultants



MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.67
TW-11	3986.51	3989.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

MW-11 ● MONITORING WELL LOCATION

TW-17 △ TEST WELL LOCATION

RW-3 ○ RECOVERY WELL LOCATION

GRAPHIC SCALE IN FEET

0 100' 200' 300'

SCALE 1"=200'

FIGURE # 2

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

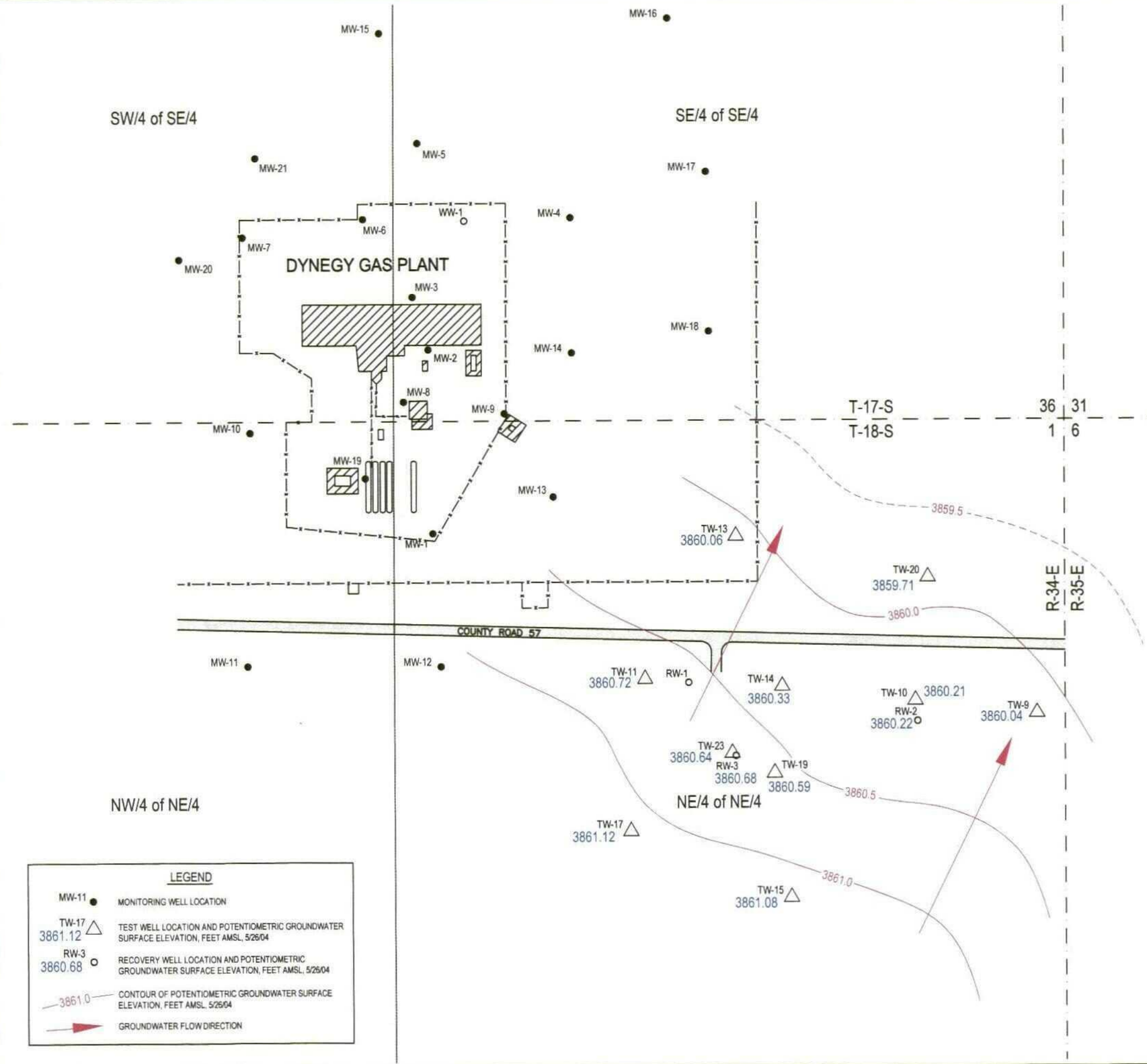
SITE DRAWING

DATE 4/8/05

NAME: SJA

FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants



MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.36	3991.94
MW-7	3990.26	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.50
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.90	3989.17
MW-17	3987.52	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.26	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.87
TW-11	3986.51	3989.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

- MW-11 ● — MONITORING WELL LOCATION
- TW-17 3861.12 △ — TEST WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 5/26/04
- RW-3 3860.68 ○ — RECOVERY WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 5/26/04
- 3861.0 — CONTOUR OF POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 5/26/04
- GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE IN FEET
0 100' 200' 300'
SCALE 1"=200'

FIGURE # 3

LEA COUNTY, NEW MEXICO

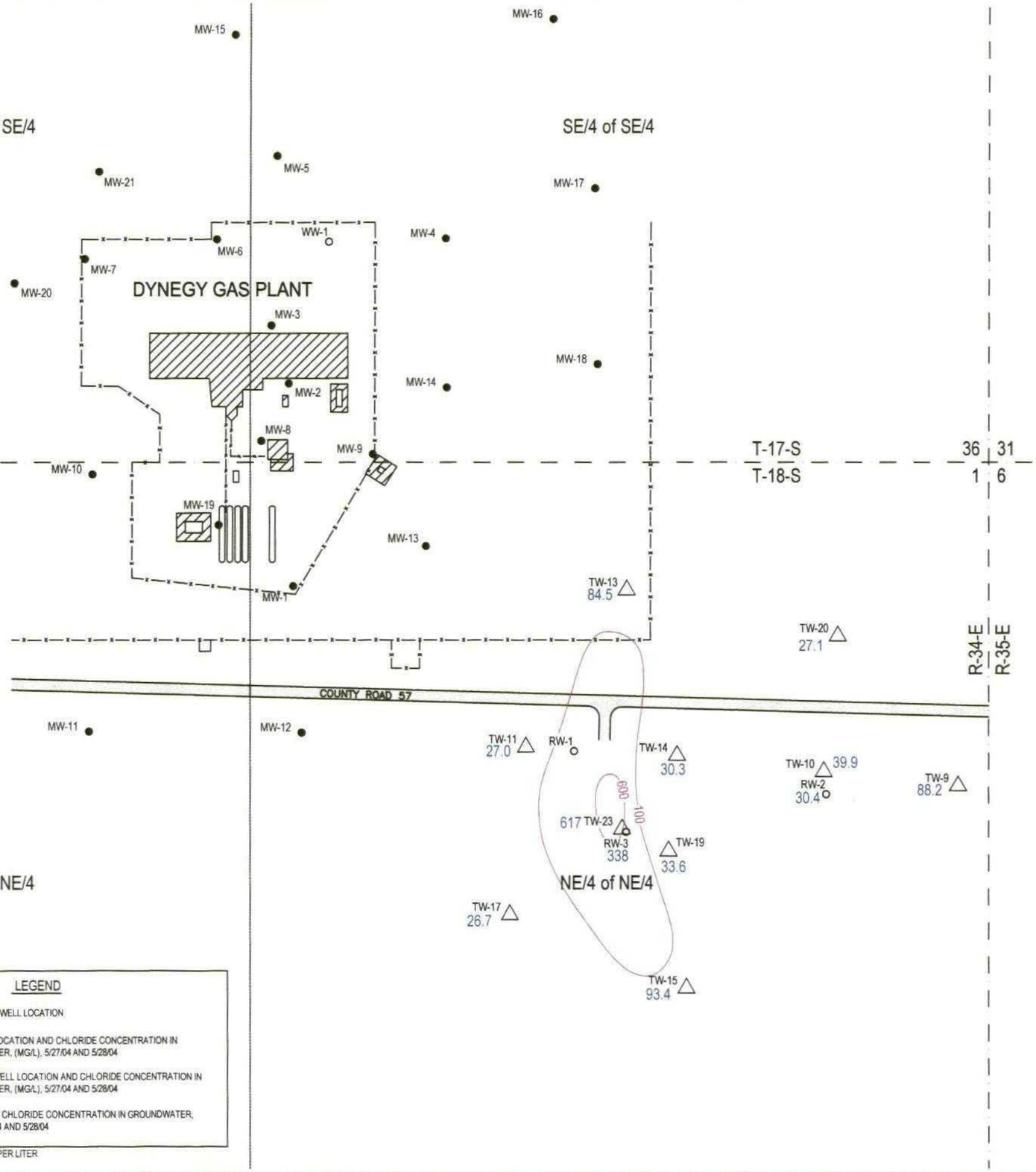
CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

POTENTIOMETRIC GROUNDWATER SURFACE MAP
MAY 26, 2004

DATE 4/8/05
NAME: SJA
FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants



MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.65
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.87
TW-11	3986.51	3988.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

- MW-11 ● MONITORING WELL LOCATION
- TW-17 26.7 △ TEST WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 5/27/04 AND 5/28/04
- RW-3 338 ○ RECOVERY WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 5/27/04 AND 5/28/04
- —100— CONTOUR OF CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 5/27/04 AND 5/28/04

MG/L MILLIGRAMS PER LITER

GRAPHIC SCALE IN FEET
0 100' 200' 300'
SCALE 1"=200'

FIGURE # 4

LEA COUNTY, NEW MEXICO

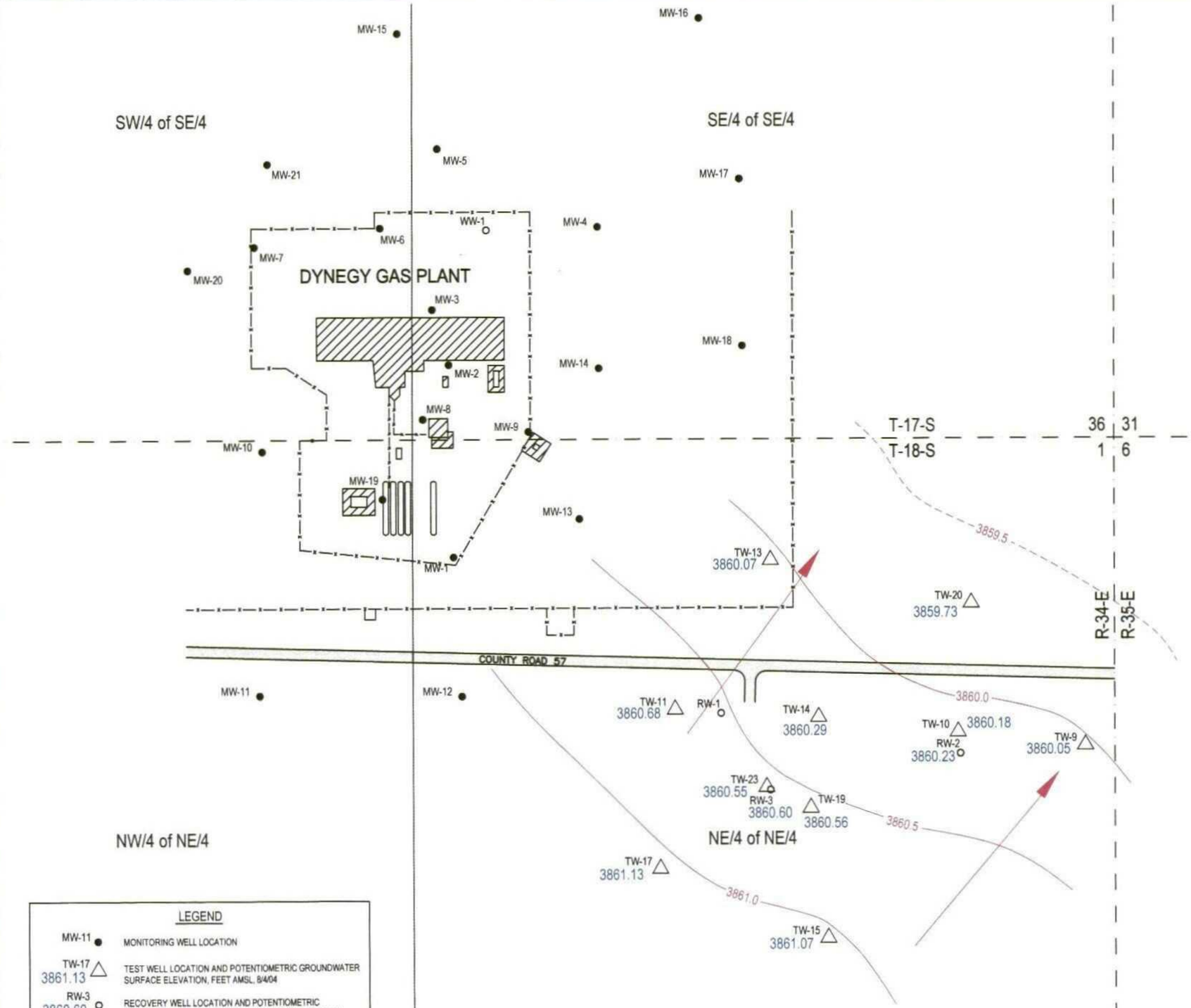
CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

ISOPLETH MAP OF CHLORIDE CONCENTRATIONS IN GROUNDWATER
MAY 27-28, 2004

DATE 4/8/05
NAME: SJA
FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants



MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.06
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.36	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.87
TW-11	3986.51	3989.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

- MW-11 ● MONITORING WELL LOCATION
- TW-17 3861.13 △ TEST WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 8/4/04
- RW-3 3860.60 ○ RECOVERY WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 8/4/04
- 3860.0 CONTOUR OF POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 8/4/04
- GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE IN FEET
0 100' 200' 300'
SCALE 1"=200'

FIGURE # 5

LEA COUNTY, NEW MEXICO

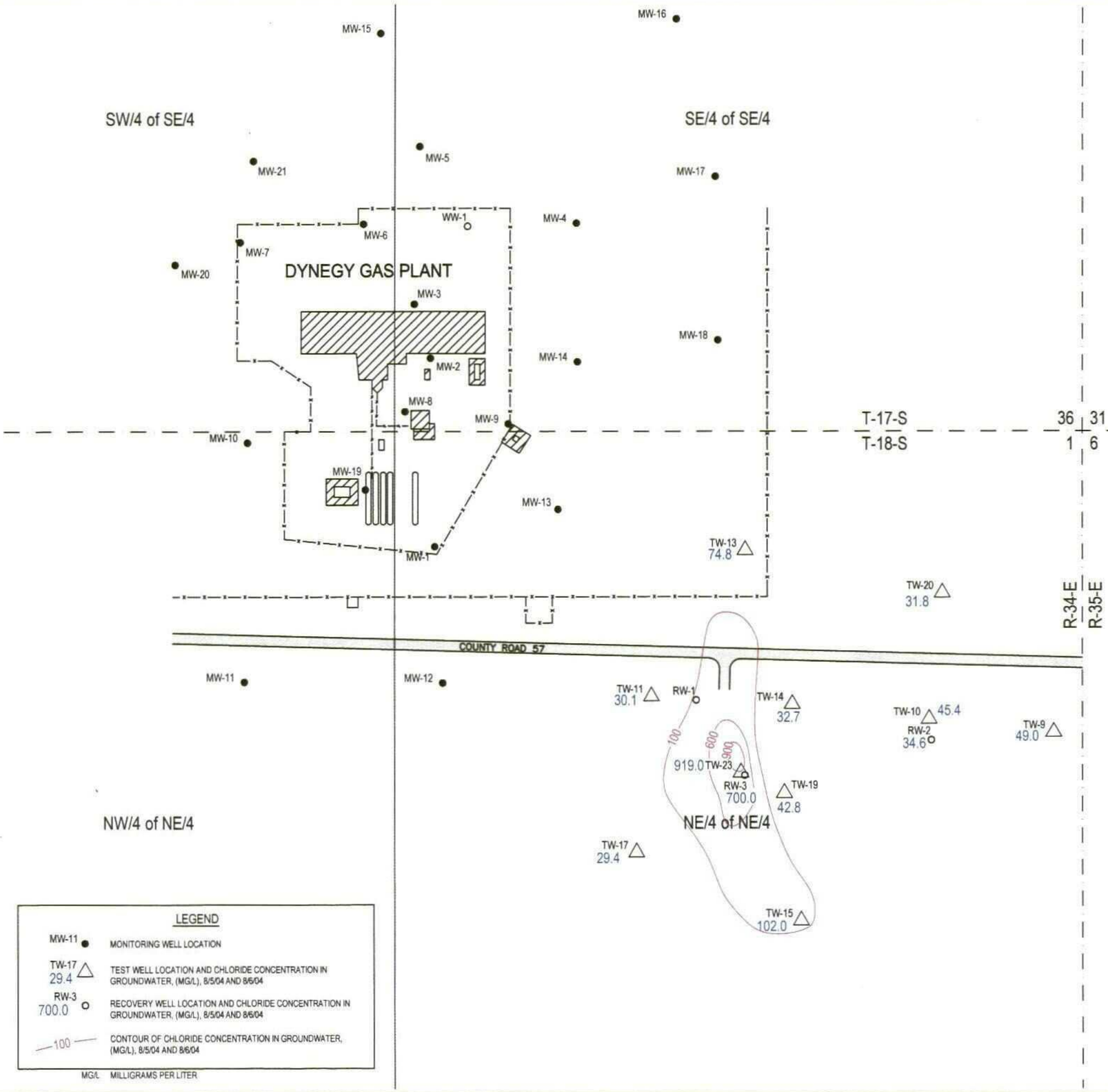
CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

POTENTIOMETRIC GROUNDWATER SURFACE MAP
AUGUST 4, 2004

DATE 4/8/05
NAME: SJA
FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants



MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.87
TW-11	3986.51	3989.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

- MW-11 ● — MONITORING WELL LOCATION
- TW-17 29.4 △ — TEST WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 8/5/04 AND 8/6/04
- RW-3 700.0 ○ — RECOVERY WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 8/5/04 AND 8/6/04
- —100— CONTOUR OF CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 8/5/04 AND 8/6/04

MG/L MILLIGRAMS PER LITER

GRAPHIC SCALE IN FEET
0 100' 200' 300'
SCALE 1"=200'

FIGURE # 6

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

ISOPLETH MAP OF CHLORIDE CONCENTRATIONS IN GROUNDWATER
AUGUST 5-6, 2004

DATE 4/8/05
NAME: SJA
FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants

SW/4 of SE/4

SE/4 of SE/4

NW/4 of NE/4

NE/4 of NE/4

DYNEGY GAS PLANT

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10 MW-11 MW-12 MW-13 MW-14 MW-15 MW-16 MW-17 MW-18 MW-19 MW-20 MW-21 WW-1

RW-1 RW-2 RW-3

TW-9 3860.90
TW-10 3861.07
TW-11 3861.55
TW-13 3860.99
TW-14 3861.22
TW-15 3861.96
TW-17 3861.95
TW-19 3861.44
TW-20 3860.61
TW-23 3861.48

3860.5 3861.0 3861.5 3862.0

COUNTY ROAD 57

T-17-S / T-18-S

36 | 31
1 | 6

R-34-E R-35-E

MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.55	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.87
TW-11	3986.51	3989.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

- MW-11 ● MONITORING WELL LOCATION
- TW-17 3861.95 △ TEST WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 3/2/05
- RW-3 3861.51 ○ RECOVERY WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 3/2/05
- 3861.0 CONTOUR OF POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 3/2/05
- GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE IN FEET
0 100' 200' 300'
SCALE 1"=200'

FIGURE # 7

LEA COUNTY, NEW MEXICO

CHEVRON TEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

POTENTIOMETRIC GROUNDWATER SURFACE MAP
MARCH 2, 2005

DATE 4/8/04
NAME: SJA
FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants

SW/4 of SE/4

SE/4 of SE/4

NW/4 of NE/4

NE/4 of NE/4

DYNEGY GAS PLANT

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10 MW-11 MW-12 MW-13 MW-14 MW-15 MW-16 MW-17 MW-18 MW-19 MW-20 MW-21

WW-1

RW-1 RW-2 RW-3

TW-9 44.5
TW-10 33.0
TW-11 28.4
TW-13 90.0
TW-14 87.9
TW-15 189
TW-17 178
TW-19 54.2
TW-20 25.3
TW-23 656

RW-2 32.4
RW-3 873

100
600
800

T-17-S
T-18-S

36 31
1 6

R-34-E R-35-E

COUNTY ROAD 57

MONITORING WELL DATA

WELL NUMBER	GROUND ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET) AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71
RW-1	3985.84	3986.89
RW-2	3986.25	3987.04
RW-3	3982.72	3984.18
TW-9	3985.48	3988.69
TW-10	3985.57	3987.87
TW-11	3986.51	3989.11
TW-13	3986.57	3988.73
TW-14	3984.63	3986.77
TW-15	3981.74	3984.14
TW-17	3983.23	3986.01
TW-19	3982.34	3985.70
TW-20	3986.38	3988.40
TW-23	3981.60	3984.58
WW-1	3989.37	3990.00

LEGEND

- MW-11 ● MONITORING WELL LOCATION
- TW-17 △ 178 TEST WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 3/3/05
- RW-3 ○ 873 RECOVERY WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 3/3/05
- —100— CONTOUR OF CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 3/3/05

MG/L MILLIGRAMS PER LITER

GRAPHIC SCALE IN FEET
0 100' 200' 300'
SCALE 1"=200'

FIGURE # 8

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO

EXPLORATION AND PRODUCTION COMPANY
VACUUM FIELD UNIT # 1 R 279
NE/4, SEC. 1, T-18-S, R-34-E

ISOPLETH MAP OF CHLORIDE CONCENTRATIONS IN GROUNDWATER
MARCH 3, 2005

DATE 4/8/05
NAME: SJA
FILE: 2-0124

Larson & Associates, inc.
Environmental Consultants

APPENDIX A

LABORATORY ANALYSIS AND CHAIN OF CUSTODY DOCUMENTATION

TRACEANALYSIS, INC.

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

Analytical and Quality Control Report

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

Report Date: June 7, 2004

Work Order: 4060105

Client Name: Chev Tx
Project Name: Buckeye CL
Project Number: 2-0124

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35584	TW-17	water	2004-05-28	09:17	2004-05-29
35585	TW-11	water	2004-05-28	09:37	2004-05-29
35586	TW-14	water	2004-05-28	10:15	2004-05-29
35587	EW-2	water	2004-05-28	11:40	2004-05-29
35588	TW-10	water	2004-05-28	12:08	2004-05-29
35589	Dup	water	2004-05-27	00:00	2004-05-29
35590	TW-13	water	2004-05-27	12:25	2004-05-29
35591	TW-20	water	2004-05-27	12:54	2004-05-29
35592	TW-9	water	2004-05-27	13:15	2004-05-29
35593	TW-23	water	2004-05-27	13:41	2004-05-29
35594	EW-3	water	2004-05-27	13:45	2004-05-29
35595	TW-19	water	2004-05-27	14:06	2004-05-29
35596	TW-15	water	2004-05-27	14:27	2004-05-29
35597	Dup	water	2004-05-28	00:00	2004-05-29

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

Blair Leftwich

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35584 - TW-17

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10156	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8992	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**26.7**	mg/L	5	0.500

Sample: 35584 - TW-17

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10162	Date Analyzed:	2004-06-02	Analyzed By:	RS
Prep Batch:	8997	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**302.0**	mg/L	1	10.00

Sample: 35585 - TW-11

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10156	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8992	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**27.0**	mg/L	5	0.500

Sample: 35585 - TW-11

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10162	Date Analyzed:	2004-06-02	Analyzed By:	RS
Prep Batch:	8997	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**274.0**	mg/L	1	10.00

Sample: 35586 - TW-14

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10156	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8992	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**30.3**	mg/L	5	0.500

Sample: 35586 - TW-14

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10162	Date Analyzed:	2004-06-02	Analyzed By:	RS
Prep Batch:	8997	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**346.0**	mg/L	1	10.00

Sample: 35587 - EW-2

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10156	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8992	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**30.4**	mg/L	5	0.500

Sample: 35587 - EW-2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**306.0**	mg/L	1	10.00

Sample: 35588 - TW-10

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10156	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8992	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**39.9**	mg/L	5	0.500

Sample: 35588 - TW-10

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**344.0**		mg/L	1	10.00

Sample: 35589 - Dup

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10156	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8992	Sample Preparation:	2004-06-01	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**84.3**		mg/L	10	0.500

Sample: 35589 - Dup

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**651.0**		mg/L	1	10.00

Sample: 35590 - TW-13

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**84.5**		mg/L	10	0.500

Sample: 35590 - TW-13

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**625.0**		mg/L	1	10.00

Sample: 35591 - TW-20

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**27.1**	mg/L	5	0.500

Sample: 35591 - TW-20

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**316.0**	mg/L	1	10.00

Sample: 35592 - TW-9

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**88.2**	mg/L	5	0.500

Sample: 35592 - TW-9

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**461.0**	mg/L	1	10.00

Sample: 35593 - TW-23

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**617**	mg/L	50	0.500

Sample: 35593 - TW-23

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**1710**	mg/L	2	10.00

Sample: 35594 - EW-3

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**338**	mg/L	10	0.500

Sample: 35594 - EW-3

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**854.0**	mg/L	2	10.00

Sample: 35595 - TW-19

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**33.6**	mg/L	5	0.500

Sample: 35595 - TW-19

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**287.0**	mg/L	1	10.00

Sample: 35596 - TW-15

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10214	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9037	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**93.4**	mg/L	5	0.500

Sample: 35596 - TW-15

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10240	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9056	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**439.0**	mg/L	1	10.00

Sample: 35597 - Dup

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10212	Date Analyzed:	2004-06-04	Analyzed By:	JSW
Prep Batch:	9036	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**30.4**	mg/L	5	0.500

Sample: 35597 - Dup

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10242	Date Analyzed:	2004-06-07	Analyzed By:	JSW
Prep Batch:	9058	Sample Preparation:	2004-06-03	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**348.0**	mg/L	1	10.00

Method Blank (1) QC Batch: 10156

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5

Method Blank (1) QC Batch: 10162

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 10212

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5

Method Blank (1) QC Batch: 10214

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5

Method Blank (1) QC Batch: 10240

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 10242

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Duplicate (1) QC Batch: 10162

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	364.0	346.0	mg/L	1	5	8.7

Duplicate (1) QC Batch: 10240

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1742	1710	mg/L	2	2	8.7

Duplicate (1) QC Batch: 10242

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	790.0	786.0	mg/L	2	0	8.7

Laboratory Control Spike (LCS-1) QC Batch: 10156

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.3	11.3	mg/L	1	12.5	<0.337	90	0	90 - 110	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10212

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.7	mg/L	1	12.5	<0.337	94	1	90 - 110	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10214

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.9	11.9	mg/L	1	12.5	<0.337	95	0	90 - 110	20

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

Matrix Spike (MS-1) QC Batch: 10156 Spiked Sample: 35566

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	1190	1190	mg/L	50	12.5	639	88	0	74.3 - 118	20

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

Matrix Spike (MS-1) QC Batch: 10212 Spiked Sample: 35662

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	684	676	mg/L	50	12.5	<16.8	109	1	74.3 - 118	20

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

Matrix Spike (MS-1) QC Batch: 10214 Spiked Sample: 35593

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	1190	1180	mg/L	50	12.5	617	92	1	74.3 - 118	20

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

Standard (ICV-1) QC Batch: 10156

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.3	90	90 - 110	2004-06-02

Standard (CCV-1) QC Batch: 10156

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.5	92	90 - 110	2004-06-02

Standard (ICV-1) QC Batch: 10162

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1028	103	90 - 110	2004-06-02

Standard (CCV-1) QC Batch: 10162

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	982.0	98	90 - 110	2004-06-02

Standard (ICV-1) QC Batch: 10212

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2004-06-04

Standard (CCV-1) QC Batch: 10212

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2004-06-04

Standard (ICV-1) QC Batch: 10214

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2004-06-04

Standard (CCV-1) QC Batch: 10214

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2004-06-04

Standard (ICV-1) QC Batch: 10240

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	998.0	100	90 - 110	2004-06-04

Standard (CCV-1) QC Batch: 10240

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2004-06-04

Standard (ICV-1) QC Batch: 10242

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2004-06-07

Standard (CCV-1) QC Batch: 10242

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2004-06-07

4060105

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc. Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev Tx
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Chloride Plume
PAGE 1 OF 2
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	TDS	Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/24	0917	✓			TW-17	35584	1	✓	✓		
	0937	✓			TW-11	85					
	1015	✓			TW-14	86					
	1140	✓			EW-2	87					
	1258	✓			TW-10	88					
		✓			Dup	35589					

SAMPLED BY: (Signature) Jones DATE: 5/28/04 TIME: 1215
RELINQUISHED BY: (Signature) DATE: 5/28/04 TIME: 1710
RECEIVED BY: (Signature) Helen Shelton DATE: 5/28/04 TIME: 1710
RELINQUISHED BY: (Signature) Helen Shelton DATE: 5/28/04 TIME: 1730
RECEIVED BY: (Signature) DATE: 5-29-04 TIME: 1050
SAMPLE SHIPPED BY: (Circle) FEDEX (BUS) AIRBILL #: HAND DELIVERED UPS OTHER:
COMMENTS: 4°c
TURNAROUND TIME NEEDED Std.
RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 5-29-04 TIME: 1050

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

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

6 samples – HS

4060105

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: ChevTx
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Chlorides Pond
PAGE 1 OF 2
LAB. PO #

PARAMETERS/METHOD NUMBER: TDS, Chlorides

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/27	1225	✓			TW-13 35590	1		
	1254	✓			TW-20 91	1		
	1315	✓			TW-9 92	1		
	1341	✓			TW-23 93	1		
	1345	✓			EW-3 94	1		
	1406	✓			TW-19 95	1		
	1427	✓			TW-15 96	1		
5/27		✓			Dup 35592	1		

SAMPLED BY: (Signature) Tony Jones — DATE: 5/27/04 TIME: 1430
RELINQUISHED BY: (Signature) Tony Jones — DATE: 5/28/04 TIME: 1710
RECEIVED BY: (Signature) Helen Shelton — DATE: 5/28/04 TIME: 1710
RELINQUISHED BY: (Signature) Helen Shelton — DATE: 5/28/04 TIME: 1730
RECEIVED BY: (Signature) Judith Vinson — DATE: 5-29-04 TIME: 1050

SAMPLE SHIPPED BY: (Circle)
FEDEX (BUS) AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS: 4°C

TURNAROUND TIME NEEDED: Standard

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 5-20-04 TIME: 1050

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: Cindy Crain

SAMPLE TYPE:

8 samples - HS

35584-96 4060105

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev Tx
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Chloride Pond
PAGE 1 OF 2
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	TDS	Chloride	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/24	0917	✓			TW-17	35584	1	✓	✓		
	0937	✓			TW-11	85		•	•		
	1015	✓			TW-14	86		•	•		
	1140	✓			EW-2	87		•	•		
	1238	✓			TW-10	88		•	•		
		✓			Dup	35589		•	•		

SAMPLED BY: (Signature) Jones DATE: 5/28/04 TIME: 1215
RELINQUISHED BY: (Signature) Jones DATE: 5/28/04 TIME: 1710
RECEIVED BY: (Signature) Helen Shelton DATE: 5/28/04 TIME: 1700

RELINQUISHED BY: (Signature) Helen Shelton DATE: 5/28/04 TIME: 1730
RECEIVED BY: (Signature) [illegible] DATE: 5-29-04 TIME: 1050

SAMPLE SHIPPED BY: (Circle)
FEDEX (BUS) AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS: 4°C

TURNAROUND TIME NEEDED: Std

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) [illegible]
DATE: 5-29-04 TIME: 1050

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

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

6 samples -HS

4.8 [illegible]

406070S

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chevron Tx

SITE MANAGER: Cindy Crain

PROJECT NO.: 2-0124

PROJECT NAME: Buckeye Chlorides Pond

PAGE 1 OF 2

LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FR	Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/27	1225	✓			TW-13 35590	1	✓	✓		
	1254	✓			TW-20 91	1	✓	✓		
	1315	✓			TW-9 92	1	✓	✓		
	1341	✓			TW-23 93	1	✓	✓		
	1345	✓			EW-3 94	1	✓	✓		
	1404	✓			TW-19 95	1	✓	✓		
	1427	✓			TW-15 96	1	✓	✓		
5/27		✓			Dup 35592	✓	✓			

SAMPLED BY: (Signature) Tony Jones
DATE: 5/27/04 TIME: 1430

RELINQUISHED BY: (Signature) Tony Jones
DATE: 5/28/04 TIME: 1710

RECEIVED BY: (Signature) Helen Shelton
DATE: 5/28/04 TIME: 1710

RELINQUISHED BY: (Signature) Helen Shelton
DATE: 5/28/04 TIME: 1730

RECEIVED BY: (Signature) Jaden Waters
DATE: 5-29-04 TIME: 1050

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS: 4°C

TURNAROUND TIME NEEDED: Standard

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 5-29-04 TIME: 1050

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

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: Cindy Crain

SAMPLE TYPE:

8 samples - HS

35584-96

4/060105

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chevron Tx

SITE MANAGER: Cindy Chamness

PROJECT NO.: 2-0124

PROJECT NAME: Buckeye Chloride Pond

PAGE 1 OF 2

LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	LAB. I.D. NUMBER (LAB USE ONLY)	NUMBER OF CONTAINERS	TPH	Chlorides	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/24	0917	✓			TW-17	35584	1	✓	✓	
	0937	✓			TW-11	85		•	•	
	1015	✓			TW-14	86		•	•	
	1140	✓			EW-2	87		•	•	
	1258	✓			TW-10	88		•	•	
cc 5/27/04		✓			Dup	35589		•	•	

SAMPLED BY: (Signature) Ty Jones
DATE: 5/28/04
TIME: 1215

RELINQUISHED BY: (Signature) Helen Shelton
DATE: 5/28/04
TIME: 1730

RELINQUISHED BY: (Signature) Ty Jones
DATE: 5/28/04
TIME: 1710

RECEIVED BY: (Signature)
DATE: 5-28-04
TIME: 1050

RECEIVED BY: (Signature) Helen Shelton
DATE: 5/28/04
TIME: 1710

SAMPLE SHIPPED BY: (Circle)
FEDEX (BUS) AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS: 4°c

TURNAROUND TIME NEEDED Standard

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 5-28-04 TIME: 1050

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

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: Cindy Chamness

SAMPLE TYPE:

6 samples

4 of 4

4060705

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc. Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chevron Tx
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Chloride Remediation
PAGE 1 OF 2
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: FP	PARAMETERS/METHOD NUMBER: Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/27	1225	✓			TW-13	35590	1	✓	✓		
	1254	✓			TW-20	91	1	✓	✓		
	1315	✓			TW-9	92	1	✓	✓		
	1341	✓			TW-23	93	1	✓	✓		
	1345	✓			EW-3	94	1	✓	✓		
	1406	✓			TW-19	95	1	✓	✓		
	1427	✓			TW-15	96	1	✓	✓		
5/27/04	1350	✓			Dup	35597		✓	✓		

SAMPLED BY: (Signature) Tony Jones
DATE: 5/27/04 TIME: 1350

RELINQUISHED BY: (Signature) Tony Jones
DATE: 5/28/04 TIME: 1710

RECEIVED BY: (Signature) Helen Shelton
DATE: 5/28/04 TIME: 1710

RELINQUISHED BY: (Signature) Helen Shelton
DATE: 5/28/04 TIME: 1730

RECEIVED BY: (Signature) Jaden Waters
DATE: 5-29-04 TIME: 1050

SAMPLE SHIPPED BY: (Circle)
FEDEX (BUS) AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS: 4°C

TURNAROUND TIME NEEDED: Standard

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 5-29-04 TIME: 1050

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

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: Cindy Crain

SAMPLE TYPE:

5/28/04 CC

8 samples - HS

TRACEANALYSIS, INC.

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

Analytical and Quality Control Report

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

Report Date: August 12, 2004

Work Order: 4080923

Client Name: Chev Tx
Project Name: Buckeye CL
Project Number: 2-0124

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
41009	TW-23	water	2004-08-05	10:25	2004-08-07
41010	TW-19	water	2004-08-05	10:58	2004-08-07
41011	TW-15	water	2004-08-05	11:30	2004-08-07
41012	TW-17	water	2004-08-05	11:55	2004-08-07
41013	TW-11	water	2004-08-05	12:45	2004-08-07
41014	TW-14	water	2004-08-05	13:20	2004-08-07
41015	DUP #1	water	2004-08-05	00:00	2004-08-07
41016	EW-3	water	2004-08-06	09:28	2004-08-07
41017	EW-2	water	2004-08-06	09:54	2004-08-07
41018	TW-10	water	2004-08-06	10:36	2004-08-07
41019	TW-9	water	2004-08-06	11:05	2004-08-07
41020	TW-20	water	2004-08-06	11:55	2004-08-07
41021	TW-13	water	2004-08-06	11:46	2004-08-07
41022	DUP #2	water	2004-08-06	00:00	2004-08-07

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

Dr. Blair Leftwich, Director

Analytical Report

Sample: 41009 - TW-23

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11867	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10492	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		919		mg/L	100	0.500

Sample: 41009 - TW-23

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11853	Date Analyzed:	2004-08-11	Analyzed By:	WB
Prep Batch:	10464	Date Prepared:	2004-08-10	Prepared By:	WB

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		2000		mg/L	5	10.00

Sample: 41010 - TW-19

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11867	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10492	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		42.8		mg/L	5	0.500

Sample: 41010 - TW-19

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11853	Date Analyzed:	2004-08-11	Analyzed By:	WB
Prep Batch:	10464	Date Prepared:	2004-08-10	Prepared By:	WB

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		344.0		mg/L	1	10.00

Sample: 41011 - TW-15

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		102	mg/L	5	0.500

Sample: 41011 - TW-15

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11853	Date Analyzed:	2004-08-11	Analyzed By:	WB
Prep Batch:	10464	Date Prepared:	2004-08-10	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		545.0	mg/L	1	10.00

Sample: 41012 - TW-17

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		29.4	mg/L	5	0.500

Sample: 41012 - TW-17

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11853	Date Analyzed:	2004-08-11	Analyzed By:	WB
Prep Batch:	10464	Date Prepared:	2004-08-10	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		306.0	mg/L	1	10.00

Sample: 41013 - TW-11

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		30.1	mg/L	5	0.500

Sample: 41013 - TW-11

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11853	Date Analyzed:	2004-08-11	Analyzed By:	WB

Prep Batch: 10464 Date Prepared: 2004-08-10 Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		269.0	mg/L	1	10.00

Sample: 41014 - TW-14

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 11824 Date Analyzed: 2004-08-09 Analyzed By: MW
Prep Batch: 10442 Date Prepared: 2004-08-09 Prepared By: MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		32.7	mg/L	5	0.500

Sample: 41014 - TW-14

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 11853 Date Analyzed: 2004-08-11 Analyzed By: WB
Prep Batch: 10464 Date Prepared: 2004-08-10 Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		347.0	mg/L	1	10.00

Sample: 41015 - DUP #1

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 11824 Date Analyzed: 2004-08-09 Analyzed By: MW
Prep Batch: 10442 Date Prepared: 2004-08-09 Prepared By: MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		29.7	mg/L	5	0.500

Sample: 41015 - DUP #1

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 11853 Date Analyzed: 2004-08-11 Analyzed By: WB
Prep Batch: 10464 Date Prepared: 2004-08-10 Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		272.0	mg/L	1	10.00

Sample: 41016 - EW-3

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		700	mg/L	50	0.500

Sample: 41016 - EW-3

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1620	mg/L	2	10.00

Sample: 41017 - EW-2

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		34.6	mg/L	5	0.500

Sample: 41017 - EW-2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		354.0	mg/L	1	10.00

Sample: 41018 - TW-10

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		45.4	mg/L	5	0.500

Sample: 41018 - TW-10

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		354.0	mg/L	1	10.00

Sample: 41019 - TW-9

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		49.0	mg/L	5	0.500

Sample: 41019 - TW-9

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		385.0	mg/L	1	10.00

Sample: 41020 - TW-20

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11824	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10442	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		31.8	mg/L	5	0.500

Sample: 41020 - TW-20

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		338.0	mg/L	1	10.00

Sample: 41021 - TW-13

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11825	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10443	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		74.8	mg/L	5	0.500

Sample: 41021 - TW-13

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		596.0	mg/L	1	10.00

Sample: 41022 - DUP #2

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	11825	Date Analyzed:	2004-08-09	Analyzed By:	MW
Prep Batch:	10443	Date Prepared:	2004-08-09	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		34.1	mg/L	5	0.500

Sample: 41022 - DUP #2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	11991	Date Analyzed:	2004-08-16	Analyzed By:	RS
Prep Batch:	10593	Date Prepared:	2004-08-13	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		312.0	mg/L	1	10.00

Method Blank (1) QC Batch: 11824

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

Method Blank (1) QC Batch: 11825

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

Method Blank (1) QC Batch: 11853

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

Method Blank (1) QC Batch: 11867

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

Method Blank (1) QC Batch: 11991

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

Duplicate (1) QC Batch: 11853

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1904	1650	mg/L	2	14	8.7

Duplicate (1) QC Batch: 11991

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	942.0	880.0	mg/L	2	7	8.7

Laboratory Control Spike (LCS-1) QC Batch: 11824

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.8	mg/L	1	12.5	<0.337	94	0	90 - 110	20

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

Laboratory Control Spike (LCS-1) QC Batch: 11825

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.8	mg/L	1	12.5	<0.337	94	0	90 - 110	20

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

Laboratory Control Spike (LCS-1) QC Batch: 11867

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.0	11.9	mg/L	1	12.5	<0.337	96	1	90 - 110	20

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

Matrix Spike (MS-1) QC Batch: 11824

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	90.3	90.7	mg/L	5	12.5	31.8	94	0	74.3 - 118	20

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

Matrix Spike (MS-1) QC Batch: 11825

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	94.0	92.7	mg/L	5	12.5	34.1	96	1	74.3 - 118	20

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

Matrix Spike (MS-1) QC Batch: 11867

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	102	102	mg/L	5	12.5	42.8	95	0	74.3 - 118	20

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

Standard (ICV-1) QC Batch: 11824

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-09

Standard (CCV-1) QC Batch: 11824

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-09

Standard (ICV-1) QC Batch: 11825

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-09

Standard (CCV-1) QC Batch: 11825

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2004-08-09

Standard (ICV-1) QC Batch: 11853

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	982.0	98	90 - 110	2004-08-11

Standard (CCV-1) QC Batch: 11853

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	999.0	100	90 - 110	2004-08-11

Standard (ICV-1) QC Batch: 11867

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.7	94	90 - 110	2004-08-09

Standard (CCV-1) QC Batch: 11867

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-09

Standard (ICV-1) QC Batch: 11991

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1065	106	90 - 110	2004-08-16

Standard (CCV-1) QC Batch: 11991

4080923

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc. Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chevron
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Florida
PAGE 1 OF 2
LAB. PO #

PARAMETERS/METHOD NUMBER: TDS, Chloride

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
8/5	1025	✓			TW-23	1	41009	
	1038				TW-19		41010	
	1130				TW-15		41011	
	1155				TW-17		41012	
	1245				TW-11		41013	
	1320				TW-14		41014	
					Dup #1		41015	

SAMPLED BY: (Signature) Jim Jones — DATE: 8/5/04 TIME: 1335
RELINQUISHED BY: (Signature) — DATE: 8/6/04 TIME: 1525
RECEIVED BY: (Signature) Ellen Shelton — DATE: 8/05/04 TIME: 1525
RELINQUISHED BY: (Signature) Ellen Shelton — DATE: 8/06/04 TIME: 1730
RECEIVED BY: (Signature) — DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX (BUS) AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Melissa Wayland
DATE: 8-7-4 TIME: 0955

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

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON:

SAMPLE TYPE:

GLI 166-130-542-6 4°C 6 samples - HS

MW-checked 8/9/04

4080923

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chevron
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Chlorides
PAGE 2 OF 2
LAB. PO #

PARAMETERS/METHOD NUMBER: TDS, Chlorides

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
8/6	0928	✓			EW-3	1	41016	
	0954				EW-2		41017	
	1036				TW-10		41018	
	1105				TW-9		41019	
	1155				TW-20		41020	
	1142				TW-13		41021	
					Dup #2		41022	

SAMPLED BY: (Signature) — DATE: 8/6/04 TIME: 1210
RELINQUISHED BY: (Signature) — DATE: 8/6/04 TIME: 1525
RECEIVED BY: (Signature) — DATE: 8/06/04 TIME: 1525
RELINQUISHED BY: (Signature) — DATE: 8/06/04 TIME: 1730
RECEIVED BY: (Signature) — DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX (BUS) AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

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

RECEIVING LABORATORY: Grace Analytics
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Melissa Wayland
DATE: 8-7-4 TIME: 0955

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: Cindy Crain

SAMPLE TYPE:

GLI 166-130-542-6 · 4°C

16 samples - HS

MW samples checked 8/9/04

41009-[redacted]22

4080923

CHAIN—OF—CUSTODY RECORD

LA Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Devon Energy

SITE MANAGER: Cindy Crain

PROJECT NO.: 2-0124

PROJECT NAME: Bushey Florida

PAGE 1 OF 2

LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: TDS, Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
8/5	1025	✓			TW-23	1	• •	41009	
	1058				TW-19		• •	41010	
	1130				TW-15		• •	41011	
	1155				TW-17		• •	41012	
	1245				TW-11		• •	41013	
	1320				TW-14		• •	41014	
					Dup #1		•	41015	

SAMPLED BY: (Signature) [signature] DATE: 8/5/04 TIME: 1335

RELINQUISHED BY: (Signature) [signature] DATE: 8/6/04 TIME: 1525

RECEIVED BY: (Signature) [signature] DATE: 8/05/04 TIME: 1525

RELINQUISHED BY: (Signature) [signature] DATE: 8/06/04 TIME: 1730

RECEIVED BY: (Signature) [signature] DATE: _____ TIME: _____

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #: _____
HAND DELIVERED UPS OTHER: _____

COMMENTS:

TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace Analysis
ADDRESS: _____
CITY: _____ STATE: _____ ZIP: _____
CONTACT: _____ PHONE: _____

RECEIVED BY: (Signature) Melissa Wayland
DATE: 8-7-4 TIME: 0955

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

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: Cindy

SAMPLE TYPE:

GLI 166-130-542-6 4°C 12 samples - HS

MW-checked 8/19/04 8/17/04

4080923

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Chev Tx
SITE MANAGER: Cindy Crain
PROJECT NO.: 2-0124
PROJECT NAME: Buckeye Chlorides
PAGE 2 OF 2
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TDS, Chlorides	Chloride	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
8/6	0928	✓			EW-3	1	✓	•	41016	
	0954				EW-2			•	41017	
	1036				TW-10			•	41018	
	1105				TW-9			•	41019	
	1155				TW-20			•	41020	
	1142				TW-13			•	41021	
					Dup #2			•	41022	

SAMPLED BY: (Signature) [signature] DATE: 8/6/04 TIME: 1210
RELINQUISHED BY: (Signature) [signature] DATE: 8/6/04 TIME: 1525
RECEIVED BY: (Signature) Helen Shelton DATE: 8/06/04 TIME: 1525

RELINQUISHED BY: (Signature) Helen Shelton DATE: 8/06/04 TIME: 1730
RECEIVED BY: (Signature) DATE: TIME:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS (circled) AIRBILL #: HAND DELIVERED UPS OTHER:

COMMENTS:
TURNAROUND TIME NEEDED

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Melissa Wayland
DATE: 8-7-4 TIME: 0955

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

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

GLI 166-130-542-6 · 4°c 6 samples - HS MW samples checked 8/8/04

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Buckeye Chloride

Project Number: 2-0124

Location: None Given

Lab Order Number: 5C04009

Report Date: 03/10/05

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
03/10/05 14:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TW-13	5C04009-01	Water	03/03/05 11:35	03/04/05 08:05
TW-20	5C04009-02	Water	03/03/05 12:10	03/04/05 08:05
TW-9	5C04009-03	Water	03/03/05 12:35	03/04/05 08:05
TW-10	5C04009-04	Water	03/03/05 13:00	03/04/05 08:05
RW-2	5C04009-05	Water	03/03/05 13:43	03/04/05 08:05
TW-14	5C04009-06	Water	03/03/05 14:04	03/04/05 08:05
TW-11	5C04009-07	Water	03/03/05 14:26	03/04/05 08:05
TW-23	5C04009-08	Water	03/03/05 14:45	03/04/05 08:05
RW-3	5C04009-09	Water	03/03/05 14:48	03/04/05 08:05
DUP1	5C04009-10	Water	03/03/05 00:00	03/04/05 08:05
TW-19	5C04009-11	Water	03/03/05 15:32	03/04/05 08:05
TW-15	5C04009-12	Water	03/03/05 16:12	03/04/05 08:05
TW-17	5C04009-13	Water	03/03/05 16:44	03/04/05 08:05

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TW-13 (5C04009-01) Water									
Chloride	**90.0**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**502**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-20 (5C04009-02) Water									
Chloride	**25.3**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**232**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-9 (5C04009-03) Water									
Chloride	**44.5**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**239**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-10 (5C04009-04) Water									
Chloride	**33.0**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**226**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
RW-2 (5C04009-05) Water									
Chloride	**32.4**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**244**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-14 (5C04009-06) Water									
Chloride	**87.9**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**340**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-11 (5C04009-07) Water									
Chloride	**28.4**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**174**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-23 (5C04009-08) Water									
Chloride	**656**	10.0	mg/L	20	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**1680**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-3 (5C04009-09) Water									
Chloride	**873**	10.0	mg/L	20	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**1710**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
DUP1 (5C04009-10) Water									
Chloride	**42.5**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**203**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-19 (5C04009-11) Water									
Chloride	**54.2**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**224**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-15 (5C04009-12) Water									
Chloride	**189**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**577**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-17 (5C04009-13) Water									
Chloride	**178**	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	**565**	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC50809 - General Preparation (WetChem)										
Blank (EC50809-BLK1)				Prepared: 03/07/05 Analyzed: 03/08/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EC50809-DUP1)	**Source: 5C04009-01**			Prepared: 03/07/05 Analyzed: 03/08/05						
Total Dissolved Solids	521	5.00	mg/L		502			3.71	20	
Batch EC51006 - General Preparation (WetChem)										
Blank (EC51006-BLK1)				Prepared & Analyzed: 03/08/05						
Chloride	ND	0.500	mg/L							
LCS (EC51006-BS1)				Prepared & Analyzed: 03/08/05						
Chloride	9.56		mg/L	10.0		95.6	80-120			
Calibration Check (EC51006-CCV1)				Prepared & Analyzed: 03/08/05						
Chloride	10.3		mg/L	10.0		103	80-120			
Duplicate (EC51006-DUP1)	**Source: 5C04009-01**			Prepared & Analyzed: 03/08/05						
Chloride	89.0	2.50	mg/L		90.0			1.12	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 3-10-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Cindy Crain
Company Name: Larson & Assoc.
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature:

Project Name: Buckeye Chloride
Project #: 2-0124
Project Loc:
PO #:

504009

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Cl	TDS	RUSH TAT (Pre-Schedule)	Standard TAT
-01	TW-13	3/3/05	1135	1	✓							✓																	
-02	TW-20		1210																										
-03	TW-9		1235																										
-04	TW-10		1300																										
-05	RW-2		1343																										
-06	TW-14		1404																										
-07	TW-11		1426																										
-08	TW-23		1445																										
-09	RW-3		1448																										
-10	DUP 1																												

Special Instructions:

Sample Containers Intact? (Y) N
Temperature Upon Receipt:
Laboratory Comments: -2.0°C

250mL HDPE

Relinquished by:	Date	Time	Received by:	Date	Time
Steve Walker	3/4/05	0805			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				3/4/05	9:05

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Cindy Crain
Company Name: Larson & Assoc
Company Address:
City/State/Zip:
Telephone No:
Fax No:
Sampler Signature:

Project Name: Buckeye Chloride
Project #: 2-0124
Project Loc:
PO #:

LAB # (lab use only): 504009

LAB #	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)
-1	TW19	3/3/05	1532	1	✓							✓			
-2	TW15	"	1612	1	✓							✓			
-3	TW17	"	1644												

Analyze For:

TCLP: / TOTAL:	TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	CL	TDS
											✓	✓

TURN AROUND TIME: RUSH TAT (Pre-Schedule) / Standard TAT

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments: -20C

250 mL HDPE

Relinquished by:	Date	Time	Received by:	Date	Time
	3/4/05	0805			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Carrie Keeler	3/4/05	8:05

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Larson & Assoc.

Date/Time: 3/4/05 8:05

Order #: 5C04009

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	-2.0 C
Shipping container/cooler in good condition?	Yes	No	
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	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

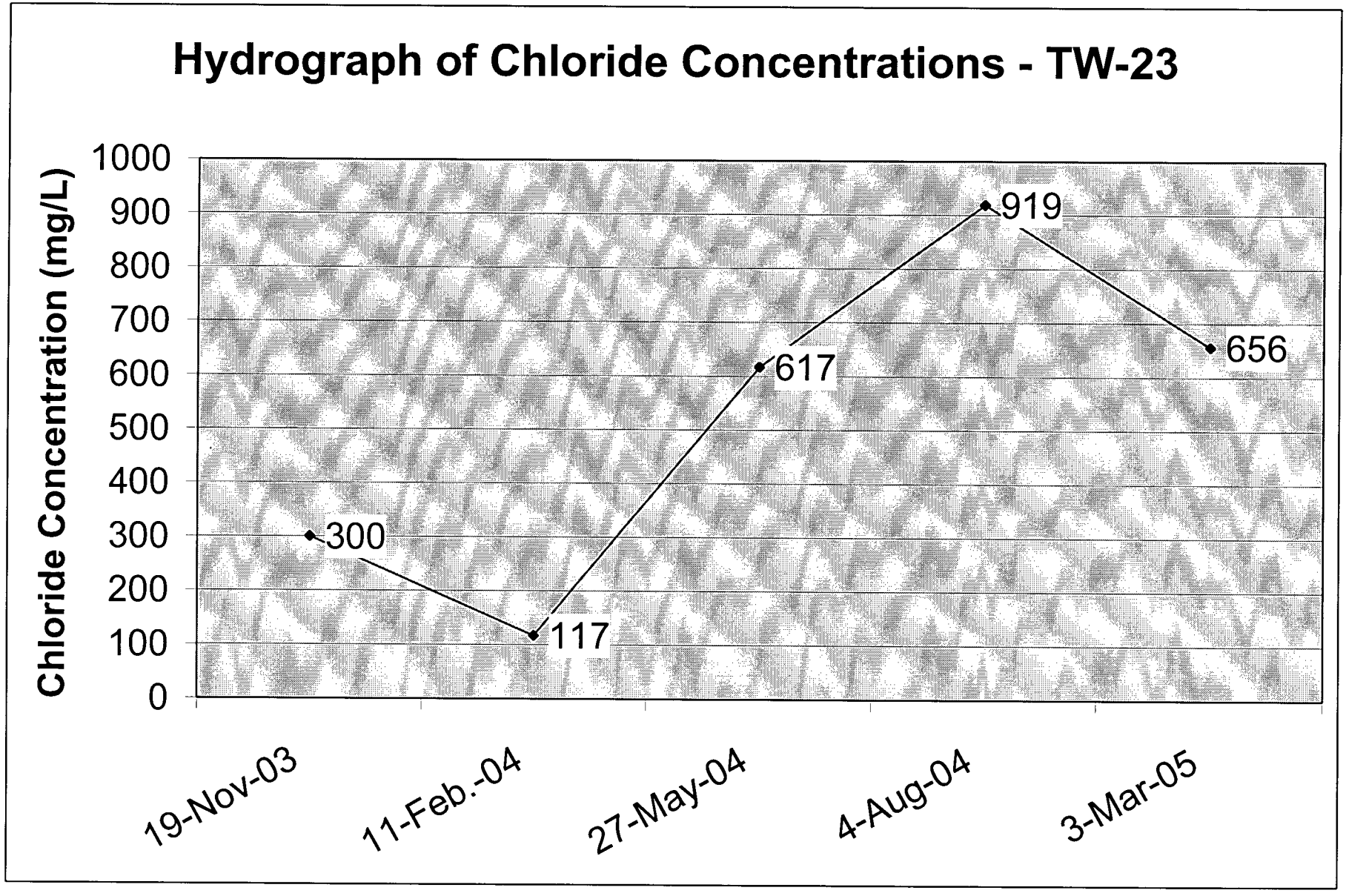
_____

_____

_____

APPENDIX B

HYDROGRAPH OF CHLORIDE CONCENTRATIONS


Hydrograph of Chloride Concentrations - TW-23
Chloride Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
300
117
617
919
656
19-Nov-03
11-Feb.-04
27-May-04
4-Aug-04
3-Mar-05