1R – 0258

ANNUAL MONITORING REPORT

9/07/2006

IR0258

MidContinent SBU
Chevron North America
Exploration and Production Company
11111 S. Wilcrest
Houston, TX 77099

September 25, 2006

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, New Mexico 87505

Subject: 2005 Annual Groundwater Monitoring Report
Former New Mexico "F" State Tank Battery, Lea County, New Mexico
Prepared for Chevron Environmental Management Company
OGRID No. 4323

Dear Mr. Price:

Enclosed is the subject report for ground water monitoring work completed at the former New Mexico "F" State Tank Battery during 2005. The report provides information and details on the ground water monitoring activities completed by Larson & Associates (Larson) and Conestoga-Rovers & Associates (CRA). Larson completed the monitoring work for the first semi-annual event in 2005. Around September of 2005, this project was transferred to CRA, and they completed the monitoring work for the second semi-annual event of 2005.

All future monitoring and reporting work will be completed by the new contractor and Chevron's agent for this site:

Conestoga-Rovers & Associates
2135 South Loop 250 West
Midland, TX 79703

If you have any questions concerning this report or the on-going work, please call me at (281) 561-3653. Or you can contact Luke Markham with CRA at (432) 686-0086.

Sincerely,

Scott Toner
Remediation Project Manager

Enclosure

Cc: Ms. Patricia Caperton, NMOCD (with electronic copy of report)
Mr. Luke Markham, CRA (without copy of report)
Mr. Tom Larson, CRA (without copy of report)

IR0258

2005 ANNUAL GROUNDWATER MONITORING REPORT

FORMER NEW MEXICO STATE "F" TANK BATTERY
OGRID NO. 4323
NE/4, SE/4, SECTION 24, T-19-S, R-36-E
LATITUDE: N 32° 38′ 34.9″ LONGITUDE: W 103° 18′ 0.49″
LEA COUNTY, NEW MEXICO

Prepared For:
Mr. Scott Toner
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
Abandonment Business Unit
11111 S. Wilcrest Drive
Houston, Texas 77099

Prepared by:
Conestoga-Rovers & Associates

2135 S Loop 250 West
Midland, Texas 79703

Office: 432-686-0086
Fax: 432-686-0186

SEPTEMBER 7, 2006
REF. NO. 039122 (1)

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1.0 INTRODUCTION

This report, prepared on behalf of Chevron Environmental Management Company (CEMC), presents groundwater data collected during the 2005 reporting period at the former New Mexico State "F" Tank Battery (hereafter referred to as the "Site"). Groundwater sampling events were performed on June 6, 2005 and on December 13, 2005 by Larson & Associates, Inc, and by Conestoga-Rovers & Associates (CRA), respectively.

Site Location and Site Details maps are illustrated on FIGURES 1 and 2, respectively. The Site is located on Lea County Road 41 (Maddox Road), approximately 3.1 miles northwest of Monument, New Mexico and situated in the northeast quarter (NE/4) of the southeast quarter (SE/4), Section 24, Township 19 South, Range 36 East, Lea County, New Mexico.

The following site history is summarized from documents provided to Conestoga-Rovers & Associates by CEMC. Historically, Texaco Exploration and Production, Inc. operated the site as an oil field tank battery. An earthen emergency reserve pit was located approximately 175-feet north of the tank battery. The tank battery and reserve pit are visible in aerial photographs dated February 1949, July 1983, and June 1986. Sometime after 1986, the tank battery and associated equipment were removed from the Site. The former reserve pit was subsequently unearthed during construction of a production facility immediately south of the pit by the Amerada-Hess Corporation.

Sometime after its discovery, the former pit was excavated. Approximately 7,400 cubic yards of excavated soil and caliche rock were stockpiled adjacent to the excavated pit. In 1998, the Highlander Environmental Corporation (Highlander) performed a subsurface assessment at the Site. The assessment activities included installation of eight groundwater monitor wells and collection of soil samples from the walls and floor of the excavation and from the stockpiled soil. Chemical analyses of the soil samples confirmed that concentrations of all constituents of concern were below the New Mexico Oil Conservation Division (NMOCD) recommended remediation action levels for the Site. The soil sampling activity and laboratory analyses are documented in the *Subsurface Investigation Report, New Mexico "F" State Tank Battery, Lea County, New Mexico* (Highlander, September 1998).

The *Annual Groundwater Monitoring Report, New Mexico "F" State Tank Battery, Lea County, New Mexico* (Larson and Associates, Inc., 2005) indicates that the pit was closed between September 1998 and November 2003 according to closure requirements stipulated by the New Mexico Oil Conservation Division (OCD) in correspondence dated January 20, 1999. The floor of the excavated pit was lined with two-feet of compacted clay, the stockpiled soil was returned to the excavation, and the backfilled excavation was returned to natural grade.

During the 1998 assessment activities, eight groundwater monitor wells (MW-1 through MW-8) were installed at the Site. Well MW-9 was installed in June 1999. The wells were screened across the watertable aquifer. Light non-aqueous phase liquid (LNAPL) was observed in wells MW-1 and MW-2. In November 1999, wells MW-1,

MW-2, and MW-9 were plugged and abandoned and replaced with recovery wells RW-1, RW-2 and RW-3.

On February 17, 2003, the New Mexico State Engineer Office issued Permits L-11029, L-11030, and L-11031 to Divert Underground Waters from wells RW-2, RW-1, and RW-3, respectively. Copies of the permits are provided in APPENDIX A.

In January and February 2005, a groundwater recovery/gradient control system was installed in recovery wells RW-1, RW-2, and RW-3. System start-up occurred on February 14, 2005.

Currently, the site is monitored with a network of six monitor wells and two offsite water wells. The recovery wells can be gauged with an electric probe by turning the recovery system off and moving the sanitary seal on each well head to the side. However, the recovery wells are not routinely sampled because the downhole eductor plumbing must be removed with a pulling unit to access the recovery wells with groundwater sampling equipment.

The affected groundwater bearing unit at the Site is the groundwater table aquifer. Depth to water varies from approximately 50-ft below ground surface (bgs) in RW-3 to approximately 66-ft bgs in MW-6. The monitor and recovery wells are screened across the watertable interface, such that approximately five feet of screen are above the interface and approximately 15-ft of screen are below the interface.

2.0 REGULATORY FRAMEWORK

The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the NMWQCC regulations. In addition, the NMWQCC regulations provide the Human Health Standards for Groundwater. The constituent of concern in affected groundwater at the Site is crude oil LNAPL. In this report, groundwater analytical results for benzene, toluene, ethylbenzene, total xylenes (BTEX), and chloride are compared to the NMWQCC standards as shown in the following table:

Analyte	NMWQCC Standard for Groundwater (mg/L)
Benzene	0.01
Toluene	0.75
Ethylbenzene	0.75
Total xylenes	0.62
Chloride	250

3.0 GROUNDWATER SAMPLING AND ANALYSIS

The Site is sampled semiannually in June and December. The June 2005 sampling event was performed by Larson and Associates, Inc, and the December 2005 event was performed by CRA.

Fluid levels were measured in each well with an electric interface probe before purging. After recording fluid levels, the wells were purged of three casing volumes of groundwater with a new disposable bailer. The field water quality parameters of pH, temperature, and specific conductance were measured during purging to determine when the purged water was representative of the formation water. After the water quality parameters stabilized, the water samples were collected by pouring water directly from the bailer into laboratory-supplied 40-mL glass jars with Teflon® septum lids.

The samples were labeled and immediately placed in coolers after collection. A fresh supply of ice was continuously maintained in the coolers. The samples collected in June 2005 were analyzed by TraceAnalysis, Inc. in Lubbock, Texas. The samples collected in December 2005 were analyzed by Pace Analytical Services, Inc., Saint Rose, Louisiana.

The samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes by Method 8021, and for chloride by Methods E300.0 and 325.2. Chain-of-custody records were maintained for each sample.

4.0 POTENTIOMETRIC SURFACE ELEVATION AND GRADIENT

Maps of the potentiometric surface elevation for the June and December sampling events are shown in FIGURES 3 and 4, respectively. The groundwater elevation data are presented in TABLE 1. The maps show that the direction of groundwater flow is to the southeast at a gradient of approximately 0.004 ft/ft.

Light non-aqueous phase liquid (LNAPL) was not detected in the monitor wells or offsite water wells WW-1 and WW-2 during the 2005 monitoring period. Although the recovery wells were not gauged during the reporting period, the recovery wells were gauged during a subsequent site-wide gauging event performed on January 25, 2006. This gauging event was performed approximately three weeks shy of one year from the groundwater gradient control/recovery system startup date of February 14, 2005.

The groundwater recovery system was turned off on January 23, 2006, two days prior to gauging, to allow groundwater levels to equilibrate. LNAPL was present in RW-1 and RW-2 at thicknesses of 2.77-ft and 0.41-ft, respectively. No measurable LNAPL was present in RW-3. An LNAPL thickness map is shown in FIGURE 5. The groundwater recovery system was restarted on January 25, 2006 after the gauging event was completed.

5.0 ANALYTICAL RESULTS

The analytical data are summarized on TABLE 2 and in FIGURES 6 and 7. BTEX concentrations were below the NMWQCC standards laboratory detection limits in all samples collected from the monitor wells and offsite water wells WW-1 and WW-2 during the 2005 monitoring period. Chloride concentrations were below the NMWQCC standard in all samples collected during the 2005 monitoring period. The laboratory reports are provided in APPENDIX B.

6.0 CORRECTIVE ACTION

Excluding brief periods for routine maintenance, the groundwater recovery/gradient control system has operated continuously since start-up on February 14, 2005. Operation and maintenance activities are performed weekly.

A process and instrumentation diagram is provided in APPENDIX C. Total fluids (groundwater and LNAPL) are recovered from each of the three recovery wells through an eductor located approximately two feet below the static groundwater table. The eductors are piped in series through a 500-barrel (bbl) oil/water separator tank and a 500-bbl water tank. Water is continuously circulated through the system by a 15-horsepower electric centrifugal pump. The cumulative (sum of the three recovery wells) groundwater recovery rate is approximately 1.5 gallons/minute. At this rate, the cumulative water recovery through March 15, 2006 was approximately 842,400 gallons. The recovered water is transported offsite for disposal in the Nabors SWD well No. 1, a Chevron-approved disposal well.

To date, no separate phase crude oil has accumulated in the oil/water separator's product holding tank. It is believed that the rapid circulation of the water required for eductor operation emulsifies the crude oil LNAPL and that the holding time in the oil/water separator is insufficient for the oil to break out of suspension.

7.0 SUMMARY

The Site is monitored with a network of eight monitor wells and two offsite water wells. BTEX and chloride concentrations in the monitor and water wells were below regulatory levels during the 2005 groundwater monitoring period. The groundwater recovery system began operation on February 14, 2005 and operated, excluding period shutdowns for routine maintenance, continuously during the monitoring period. LNAPL is not present in the monitor wells or offsite water wells; however, LNAPL has historically been present in the recovery wells. On January 25, 2006, LNAPL was present in recovery wells RW-1 and RW-2 at thicknesses of 2.77-ft and 0.41-ft, respectively.

8.0 PLANNED ACTIVITIES

The 2006 semiannual groundwater sampling events are scheduled to be performed during June and December 2006. Operation of the groundwater recovery/gradient control system will continue with adjustments, as necessary, to maintain gradient control and LNAPL recovery.

All of Which is Respectfully Submitted,
Conestoga – Rovers & Associates

Lucas D. Markham
Project Manager

Thomas C. Larson, P.G.
Operations Manager

MONUMENT NORTH QUADRANGLE
NEW MEXICO

LAT= 32° 38' 34.9" N
LONG= 103° 18' 0.49" W

PHOTOREVISED 1985

USGS MAP SERIES 1:24,000

0 1 2 4
(Miles)

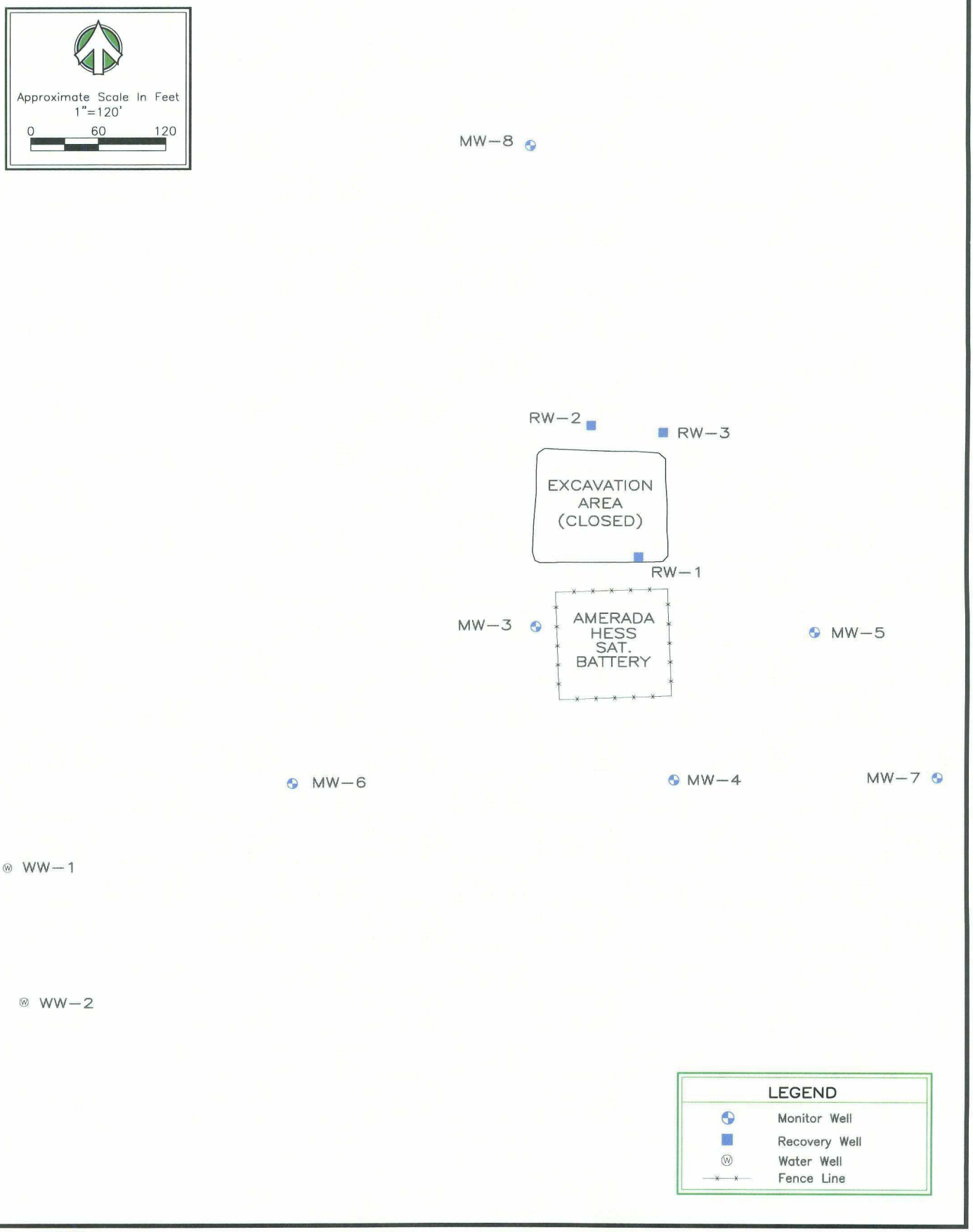
0 4000 8000 12000 16000
(Feet)

CONTOUR INTERVAL 10 FEET

NORTH

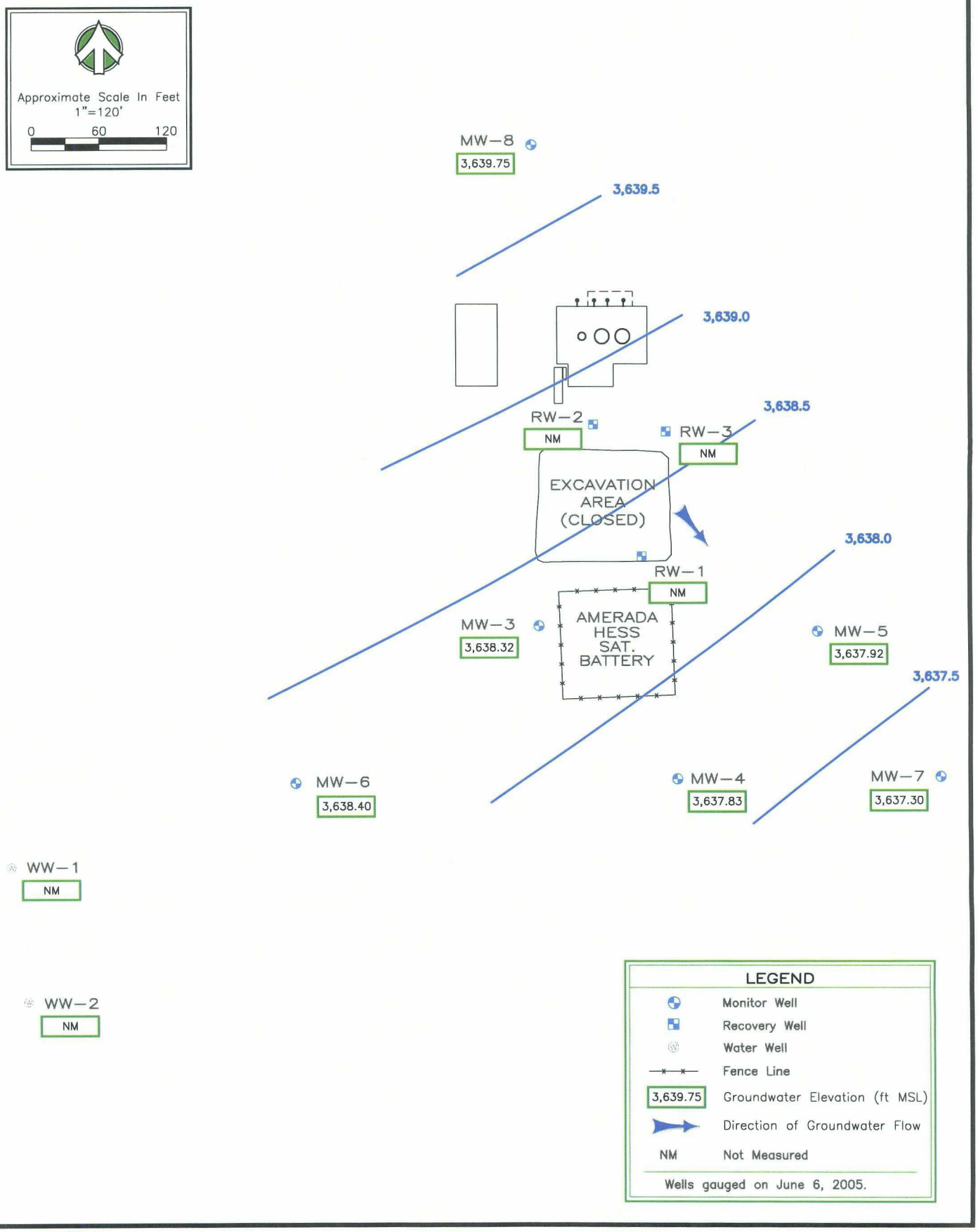
039122 SLR 051205

SITE LOCATION MAP	JOB No. 039122
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT LEA COUNTY, NEW MEXICO	FIGURE 1



039122 SLR 061405

SITE DETAILS	JOB No. 039122
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT LEA COUNTY, NEW MEXICO	FIGURE 2



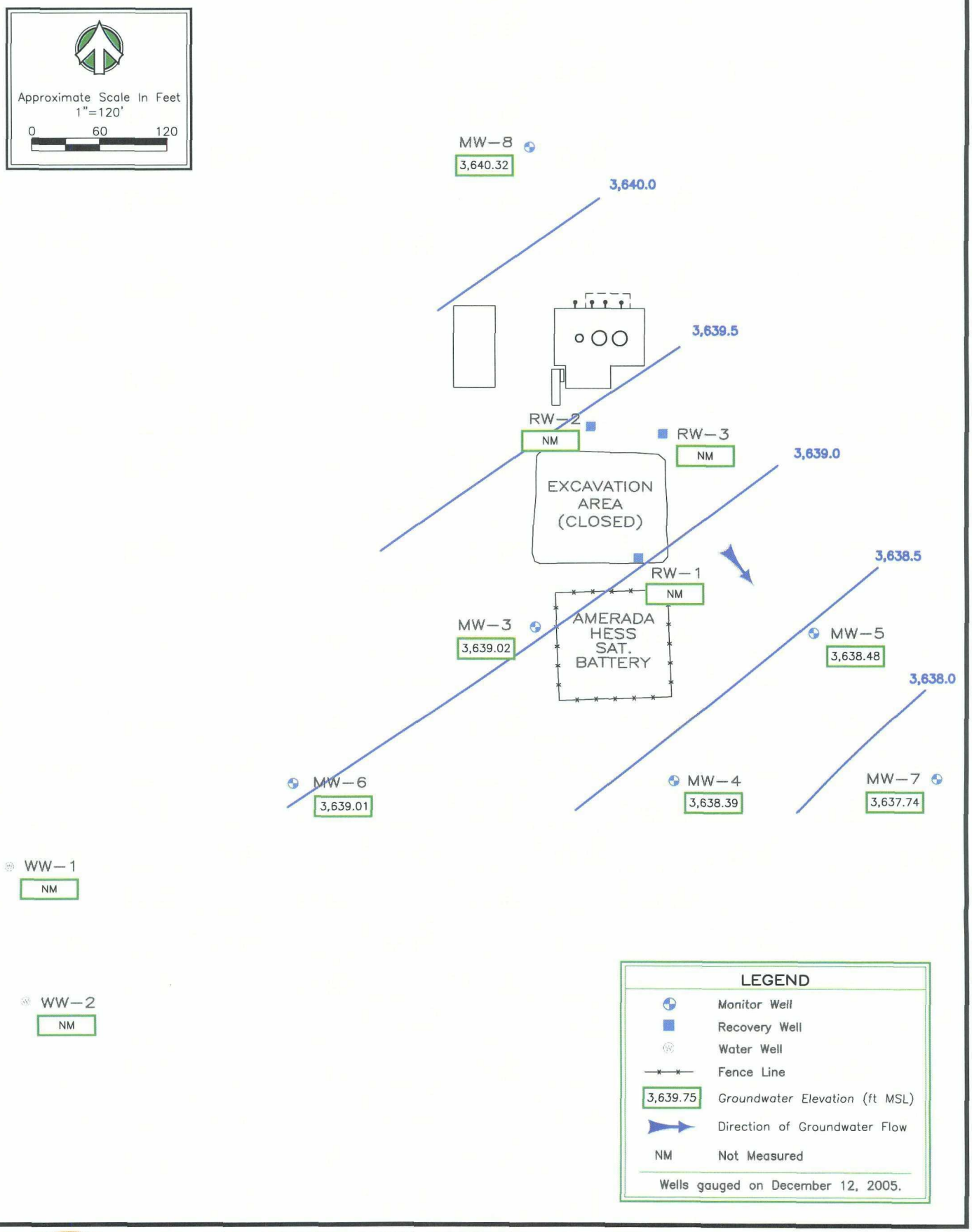
039122 SLR 033106

POTENTIOMETRIC SURFACE MAP – JUNE 6, 2005

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT
LEA COUNTY, NEW MEXICO

JOB No. 039122

FIGURE 3



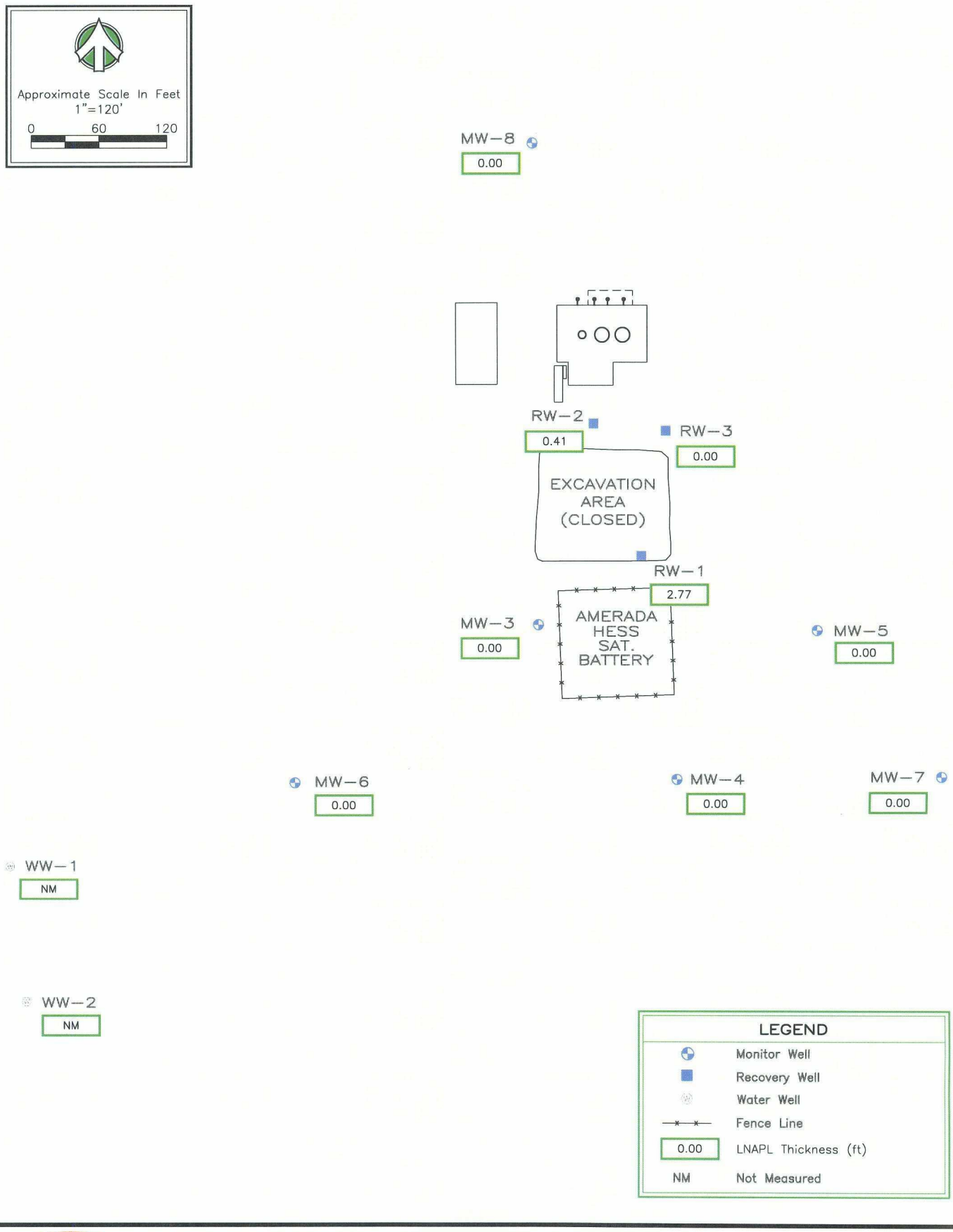
039122 SLR 090606

POTENTIOMETRIC SURFACE MAP – DECEMBER 12, 2005

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT
LEA COUNTY, NEW MEXICO

JOB No. 039122

FIGURE 4



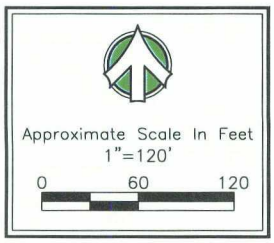
039122 SLR 081606

LNAPL THICKNESS MAP – JANUARY 25, 2006

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT
LEA COUNTY, NEW MEXICO

JOB No. 039122

FIGURE 5



MW-8	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	227

RW-2 NS

RW-3 NS

RW-1 NS

MW-3	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	34.3

MW-5	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	41.1

MW-6	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	66.7

MW-4	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	58.4

MW-7	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	221

WW-1	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	63.4

WW-2	
B	<0.00100
T	<0.00100
E	<0.00100
X	<0.00100
Chloride	55.3

LEGEND

	Monitor Well
	Recovery Well
Ⓦ	Water Well
	Fence Line
NS	Not Sampled
B	Benzene Concentration
T	Toluene Concentration
E	Ethylbenzene Concentration
X	Xylenes Concentration
Chloride	Chloride Concentration

NOTES:

1. Groundwater samples were collected on June 6, 2005.
2. Results shown in mg/L.

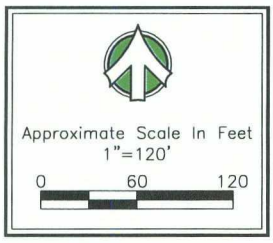
039122 SLR 033106

BTEX ANALYTICAL RESULTS – JUNE 6, 2005

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT
LEA COUNTY, NEW MEXICO

JOB No. 039122

FIGURE 6



MW-8	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	144

RW-2

RW-3

NS

NS

RW-1

NS

MW-3	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	29.3

MW-5	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	39.7

MW-6	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	80.9

MW-4	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	55.3

MW-7	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	204

WW-1	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	41.1

WW-2	
B	<0.005
T	<0.005
E	<0.005
X	<0.010
Chloride	75.3

LEGEND

	Monitor Well
	Recovery Well
	Water Well
	Fence Line
NS	Not Sampled
B	Benzene Concentration
T	Toluene Concentration
E	Ethylbenzene Concentration
X	Xylenes Concentration
Chloride	Chloride Concentration

NOTES:

1. Groundwater samples were collected on December 13, 2005.
2. Results shown in mg/L.

039122 SLR 033106

BTEX ANALYTICAL RESULTS – DECEMBER 13, 2005

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
NEW MEXICO "F" STATE GROUNDWATER REMEDIATION PROJECT
LEA COUNTY, NEW MEXICO

JOB No. 039122

FIGURE 7

TABLE I
Fluid Level Measurements
Former New Mexico "F" State Tank Battery

Well *TOC elev*[1] (GS elev[2])	Date	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Corrected Groundwater Elevation (ft above MSL[3])	Screen Interval (bgs[4])
MW-1	7/7/98	61.05	---	---	3635.60	51.87 - 72.27
3696.65	7/17/98	60.15	55.37	4.78	3640.71	
(3796.63)	7/28/98	60.09	55.13	4.96	3640.92	
	6/25/99	59.61	55.17	4.44	3640.95	
MW-2	7/28/98	54.77	53.06	1.71	3643.56	45 - 65
3692.48	6/25/99	54.59	51.53	3.06	3639.81	
(3689.73)						
MW-3	7/28/98	59.53	---	---	3637.32	55 - 75
3696.85	6/25/99	59.06	---	---	3637.79	
(3696.95)	2/16/01	59.53	---	---	3637.32	
	6/11/02	59.18	---	---	3637.67	
	11/26/02	59.54	---	---	3637.31	
	6/5/03	59.45	---	---	3637.40	
	12/3/03	59.47	---	---	3637.38	
	7/1/04	59.24	---	---	3637.61	
	12/20/04	58.83	---	---	3638.02	
	6/6/05	58.53	---	---	3638.32	
	12/12/05	57.83	---	---	3639.02	
	1/25/06	57.85	---	---	3639.00	
MW-4	7/28/98	69.72	---	---	3629.78	55 - 75
3699.50	6/25/99	62.31	---	---	3637.19	
(3696.15)	2/16/01	62.52	---	---	3636.98	
	6/11/02	62.39	---	---	3637.11	
	11/26/02	62.76	---	---	3636.74	
	6/5/03	62.71	---	---	3636.79	
	12/3/03	62.67	---	---	3636.83	
	7/1/04	62.43	---	---	3637.07	
	12/20/04	62.02	---	---	3637.48	
	6/6/05	61.67	---	---	3637.83	
	12/12/05	61.11	---	---	3638.39	
	1/25/06	61.11	---	---	3638.39	
MW-5	7/28/98	56.53	---	---	3636.99	48 - 68
3693.52	3/23/99	56.30	---	---	3637.22	
(3691.13)	6/25/99	56.21	---	---	3637.31	
	2/16/01	56.31	---	---	3637.21	
	6/11/02	56.29	---	---	3637.23	
	11/26/02	56.13	---	---	3637.39	
	6/5/03	56.53	---	---	3636.99	
	12/3/03	56.57	---	---	3636.95	
	7/1/04	54.34	---	---	3639.18	
	12/20/04	55.86	---	---	3637.66	
	6/6/05	55.60	---	---	3637.92	
	12/12/05	55.04	---	---	3638.48	
	1/25/06	55.07	---	---	3638.45	

TABLE I
Fluid Level Measurements
Former New Mexico "F" State Tank Battery

Well *TOC elev*[1] (GS elev[2])	Date	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Corrected Groundwater Elevation (ft above MSL[3])	Screen Interval (bgs[4])
MW-6	7/28/98	67.86	---	---	3636.95	56 - 76
3704.81	6/25/99	67.25	---	---	3637.56	
(3704.51)	2/16/01	67.45	---	---	3637.36	
	6/11/02	67.19	---	---	3637.62	
	11/26/02	67.09	---	---	3637.72	
	6/5/03	67.57	---	---	3637.24	
	12/3/03	67.61	---	---	3637.20	
	7/1/04	67.43	---	---	3637.38	
	12/20/04	67.55	---	---	3637.26	
	6/6/05	66.41	---	---	3638.40	
	12/12/05	65.80	---	---	3639.01	
	1/25/06	65.88	---	---	3638.93	
MW-7	7/28/98	58.08	---	---	3636.50	49 - 69
3694.58	6/25/99	57.96	---	---	3636.62	
(3691.63)	2/16/01	58.09	---	---	3636.49	
	6/11/02	58.07	---	---	3636.51	
	11/26/02	57.92	---	---	3636.66	
	6/5/03	58.29	---	---	3636.29	
	12/3/03	58.33	---	---	3636.25	
	7/1/04	58.11	---	---	3636.47	
	12/20/04	57.62	---	---	3636.96	
	6/6/05	57.28	---	---	3637.30	
	12/12/05	56.84	---	---	3637.74	
	1/25/06	56.86	---	---	3637.72	
MW-8	7/28/98	56.84	---	---	3638.77	46 - 66
3695.61	6/25/99	56.56	---	---	3639.05	
(3692.63)	2/16/01	56.49	---	---	3639.12	
	6/11/02	56.56	---	---	3639.05	
	11/26/02	56.88	---	---	3638.73	
	6/5/03	56.89	---	---	3638.72	
	12/3/03	56.91	---	---	3638.70	
	7/1/04	56.70	---	---	3638.91	
	12/20/04	56.23	---	---	3639.38	
	6/6/05	55.86	---	---	3639.75	
	12/12/05	55.29	---	---	3640.32	
	1/25/06	55.30	---	---	3640.31	
MW-9	6/25/99	52.40	---	---	---	45.64 - 65.70
NA						
RW-1	11/3/99	62.17	---	---	3637.75	55 - 75
3699.92	2/16/01	62.37	62.33	0.04	3637.59	
(3697.34)	6/11/02	62.26	61.86	0.40	3638.01	
	11/26/02	62.60	62.07	0.53	3637.79	
	6/5/03	63.00	62.84	0.16	3637.06	
	12/3/03	63.26	62.61	0.65	3637.23	
	7/1/04	63.10	62.33	0.77	3637.50	
	12/20/04	61.80	60.96	0.84	3638.86	
	3/1/05	Start-up groundwater extraction system				
	1/25/06	61.44	58.67	2.77	3640.92	

TABLE I
Fluid Level Measurements
Former New Mexico "F" State Tank Battery

Well *TOC elev*[1] (GS elev[2])	Date	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Corrected Groundwater Elevation (ft above MSL[3])	Screen Interval (bgs[4])
RW-2	10/14/99	53.28	---	---	3638.84	47 - 67
3692.12	11/3/99	53.95	---	---	3638.17	
(3690.55)	2/16/01	54.01	---	---	3638.11	
	6/11/02	54.01	53.98	0.03	3638.14	
	11/26/02	54.28	54.07	0.21	3638.02	
	6/5/03	53.24	53.23	0.01	3638.89	
	12/3/03	54.51	54.38	0.13	3637.72	
	7/1/04	54.51	54.12	0.39	3637.95	
	12/20/04	53.69	53.52	0.17	3638.58	
	3/1/05	Start-up groundwater extraction system				
	1/25/06	51.55	51.14	0.41	3640.93	
RW-3	10/14/99	45.82	---	---	3645.04	47 - 67
3690.86	11/3/99	52.82	---	---	3638.04	
(3689.46)	2/16/01	52.88	---	---	3637.98	
	6/11/02	52.91	---	---	3637.95	
	11/26/02	53.22	53.15	0.07	3637.70	
	6/5/03	54.56	54.40	0.16	3636.44	
	12/3/03	53.23	---	---	3637.63	
	7/1/04	53.19	52.98	0.21	3637.85	
	12/20/04	52.50	52.09	0.41	3638.72	
	3/1/05	Start-up groundwater extraction system				
	1/25/06	50.71	---	---	3640.15	
WW-1	6/11/02	66.35	---	---	3637.82	
3704.17	6/5/03	68.25	---	---	3635.92	
(3703.17)						
WW-2	6/11/02	66.18	---	---	3637.66	
3703.84	11/26/02	66.18	---	---	3637.66	
(3703.34)	6/5/03	68.54	---	---	3635.30	

Notes:

Data through June 6, 2005 provided by Larson & Associates, Inc.

[1]TOC - Top of Casing

[2]GS - Ground surface elevation

[3]MSL - Mean Sea Level

[4]BGS - Below ground surface

Corrected groundwater elevations calculated using LNAPL specific gravity of 0.88.

MW-1, MW-2 and MW-9 were plugged and abandoned in 1999 and replaced with RW-1, RW-2 and RW-3.

TABLE II
Groudwater Analytical Results
Former New Mexico "F" State Tank Battery

Sample	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Chloride
NMWQCC Standard		0.01	0.75	0.75	0.62	250
MW-3	7/28/98	**0.003**	<0.001	<0.001	**0.002**	36.0
	2/16/01	<0.005	<0.005	<0.005	<0.005	31
	6/12/02	<0.005	<0.005	<0.005	<0.005	27.1
	11/26/03	<0.001	<0.001	<0.001	<0.001	31.9
	6/6/03	<0.001	<0.001	<0.001	<0.001	27.5
	12/4/03	<0.001	<0.001	<0.001	**0.0017**	26.1
	7/2/04	<0.005	<0.005	<0.005	<0.005	28.0
	12/21/04	<0.005	<0.005	<0.005	<0.005	32.3
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	34.3
	12/13/05	<0.005	<0.005	<0.005	<0.010	29.3
MW-4	7/28/98	<0.001	<0.001	<0.001	<0.001	94.0
	2/16/01	<0.005	<0.005	<0.005	**0.008**	170
	6/12/02	<0.005	<0.005	<0.005	<0.005	85.6
	11/26/03	**0.002**	<0.001	<0.001	<0.005	160.0
	6/6/03	<0.001	<0.001	<0.001	**0.0026**	111.0
	12/4/03	**0.0015**	<0.001	<0.001	<0.001	104.0
	7/2/04	<0.001	<0.001	<0.001	<0.001	72.4
	12/21/04	<0.005	<0.005	<0.005	<0.005	59.7
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	58.4
	12/13/05	<0.005	<0.005	<0.005	<0.010	55.3
MW-5	7/28/98	<0.001	<0.001	<0.001	<0.001	360.0
	2/16/01	<0.005	<0.005	<0.005	<0.005	120
	6/12/02	<0.005	<0.005	<0.005	<0.005	90.2
	11/26/03	**0.002**	<0.001	**0.003**	<0.002	59.1
	6/6/03	<0.001	<0.001	<0.001	<0.001	48.6
	12/4/03	<0.001	<0.001	<0.001	<0.001	36.5
	7/2/04	<0.005	<0.005	<0.005	<0.005	32.9
	12/21/04	<0.005	<0.005	<0.005	<0.005	39.8
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	41.1
	12/13/05	<0.005	<0.005	<0.005	<0.010	39.7

TABLE II
Groudwater Analytical Results
Former New Mexico "F" State Tank Battery

Sample	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Chloride
NMWQCC Standard		**0.01**	**0.75**	**0.75**	**0.62**	**250**
MW-6	7/28/98	<0.001	<0.001	<0.001	<0.001	43.0
	2/16/01	<0.005	<0.005	**0.006**	**0.006**	52
	6/12/02	<0.001	<0.001	<0.001	<0.001	54.1
	11/26/03	<0.001	<0.001	<0.001	<0.002	65.0
	6/6/03	<0.001	<0.001	<0.001	<0.001	43.7
	12/4/03	<0.001	<0.001	<0.001	<0.001	45.3
	7/2/04	<0.001	<0.001	<0.001	<0.001	57.5
	12/21/04	<0.005	<0.005	<0.005	<0.005	61.3
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	66.7
	12/13/05	<0.005	<0.005	<0.005	<0.010	80.9
MW-7	7/28/98	<0.001	<0.001	<0.001	<0.001	82.0
	2/16/01	<0.005	<0.005	<0.005	<0.005	150
	6/12/02	<0.005	<0.005	<0.005	<0.005	96.7
	11/26/03	<0.001	<0.001	<0.001	<0.002	133.0
	6/6/03	<0.001	<0.001	<0.001	<0.001	199.0
	12/4/03	<0.001	<0.001	<0.001	<0.001	230.0
	7/2/04	<0.001	<0.001	<0.001	<0.001	215.0
	12/21/04	<0.005	<0.005	<0.005	<0.005	274.0
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	221
	12/13/05	<0.005	<0.005	<0.005	<0.010	204
MW-8	7/28/98	<0.001	<0.001	<0.001	<0.001	29.0
	2/16/01	<0.005	<0.005	<0.005	<0.005	94
	6/12/02	<0.005	<0.005	<0.005	<0.005	180.0
	11/26/03	<0.001	<0.001	<0.001	<0.002	239.0
	6/6/03	<0.001	<0.001	<0.001	<0.001	244.0
	12/4/03	<0.001	<0.001	<0.001	<0.001	251.0
	7/2/04	<0.005	<0.005	<0.005	<0.005	206.0
	12/21/04	<0.005	<0.005	<0.005	<0.005	244.0
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	227
	12/13/05	<0.005	<0.005	<0.005	<0.010	144

TABLE II
Groudwater Analytical Results
Former New Mexico "F" State Tank Battery

Sample	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Chloride
NMWQCC Standard		0.01	0.75	0.75	0.62	250
WW-1	7/28/98	<0.001	<0.001	<0.001	<0.001	100.0
	6/12/02	<0.001	<0.001	<0.001	<0.001	43.6
	11/26/02	<0.001	<0.001	<0.001	<0.002	80.0
	6/6/03	<0.001	<0.001	<0.001	<0.001	73.4
	12/4/03	<0.001	<0.001	<0.001	<0.001	65.3
	7/2/04	<0.001	<0.001	<0.001	<0.001	66.5
	12/21/04	<0.005	<0.005	<0.005	<0.005	74.3
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	63.4
	12/13/05	<0.005	<0.005	<0.005	<0.010	41.1
WW-2	6/12/02	<0.001	<0.001	<0.001	<0.001	53.7
	11/26/02	<0.001	<0.001	<0.001	<0.002	70.9
	6/6/03	<0.001	<0.001	<0.001	<0.001	71.1
	12/4/03	<0.001	<0.001	<0.001	<0.001	52.4
	7/2/04	<0.001	<0.001	<0.001	<0.001	51.0
	12/21/04	<0.005	<0.005	<0.005	<0.005	55.6
	6/6/05	<0.00100	<0.00100	<0.00100	<0.00100	55.3
	12/13/05	<0.005	<0.005	<0.005	<0.010	75.3
RW-3	6/11/02	<0.005	<0.005	<0.005	<0.005	25.9
	12/3/04	<0.001	<0.001	<0.001	<0.001	36.3

Notes:

Result shown in mg/L.

Data through June 6, 2005 provided by Larson & Associates, Inc.

Bold indicates detection above method detection limit.

Shaded indicates NMWQCC Standard exceedance.

APPENDIX A

PERMITS TO DIVERT UNDERGROUND WATERS

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

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 172268
File Nbr: L 11029

Feb. 17, 2003

MARK LARSON
TEXACO EXPLORATION & PROD.,INC
P.O. BOX 730
HOBBS, NM 88240

Greetings:

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

Proof of Application of Water to Beneficial Use will be due in this office on 02/28/2007. This proof must be signed by an engineer or land surveyor who is registered in the State of New Mexico, and who must be designated and paid by you. As soon as you are ready to have final inspection made, you should send this office the name of the engineer or land surveyor you wish to employ so that we may send him the necessary instructions.

Proof of Completion of Well(s) will be filed in this office after completion and installation of equipment, but in no event later than 02/28/2005. Proof of Completion of Well forms shall be mailed upon request.

Your rights under this permit will expire on 02/28/2007, unless Proofs of Completion of Well(s) and Proof of Application of Water to Beneficial Use are filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

Andy Morley
(505)622-6467

Enclosure
cc: Santa Fe Office

nonpbupcw

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

SPECIFIC CONDITIONS OF APPROVAL

DIV The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.

CU The maximum amount of consumptive use of water in any year is not to exceed 3.000 acre-feet per year.

1B Depth of the well shall not exceed the thickness of the Ogallala formation.

5B A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor on or before the 10th of Jan., April, July, and Oct. of each year for the 3 preceeding calendar months.

7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

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

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

PCW The Point of Diversion L 11029 must be completed and the Proof of Completion of Works filed on or before 02/28/2005.

PBU The Proof of Beneficial use must be filed on or before 02/28/2007.

This well shall be drilled at least 660 feet from all wells of other ownership.

1. This application is approved as follows:

   PERMIT NO: L-11,029

   SOURCE: Shallow Ground Water

   POINT OF DIVERSION:
   L-11,029 NE1/4SE1/4 Sec. 24, Twp 19S, Rge 36E, NMPM

   PURPOSE OF USE: Environmental Remediation

   PLACE OF USE:
   NE1/4SE1/4 Sec. 24, Twp 19S, Rge 36E, NMPM

   AMOUNT OF WATER:
   3.0 acre-feet per annum (consumptive use) for Environmental Remediation purposes.

2. The granting of this application, subject to the conditions recommended will not cause impairment of, nor be detrimental to existing water rights. The granting of the application would not be contrary to the conservation of water within the State of New Mexico, nor be detrimental to the public welfare of the state.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 10/01/1999	Pub. of Notice Ordered: 01/19/2000
Date Returned - Correction:	Affidavit of Pub. Filed: 03/14/2000

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

Witness my hand and seal this 17 day of Feb A.D., 2003

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

By: _____
Art Mason

Trn Desc: L 11029

File Number: L 11029
Trn Number: 172268

Revised August 1967

IMPORTANT–READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM

2,69703
15.

APPLICATION FOR PERMIT

Divert

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

Date Received 10-1-99 File No. L-11029

1. Name of applicant Texaco Exploration and Production, Inc.
   Mailing address P. O. Box 730
   City and State Hobbs, NM 88240-0730
2. Source of water supply Shallow Water Aquifer, located in Lea County Basin
   (artesian or shallow water aquifer) (name of underground basin)
3. The well is to be located in the NE ¼ SE ¼ ¼, Section 24 Township 19 South
   Range 36 East N.M.P.M., or Tract No. ____ of Map No. ____ of the ____ District,
   on land owned by State of New Mexico – Land Office.
4. Description of well: name of driller RW-2, Scarborough Drilling, Inc., Lamesa, Texas;
   Outside Diameter of casing 4" inches; Approximate depth to be drilled 70' feet;
5. Quantity of water to be appropriated and beneficially used ~~3.25~~ 3.0 acre feet,
   (consumptive use, diversion)
   for Environmental Remediation purposes.
6. Acreage to be irrigated or place of use ____ acres.

Subdivision	Section	Township	Range	Acres	Owner

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

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
1999

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

Texaco Exploration and Production, ~~Inc~~ Permittee,

By: _____.

Subscribed and sworn to before me this 29th day of September, A.D., 19 99.

My commission expires 4-14-2002 Vickie A. Inman
Notary Public

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

T# 172268

Number of this permit _____

ACTION OF STATE ENGINEER

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

see attached conditions

Proof of completion of well shall be filed on or before February 28, 2005, ~~19XX~~

Proof of application of water to beneficial use shall be filed on or before February 28, 2007, ~~19XX~~

Witness my hand and seal this 17th day of February, A.D., ~~19XX~~ 2003.

John R. D'Antonio, Jr., P.E.
~~[illegible]~~ State Engineer

By: _____
Art Mason, District II Supervisor

INSTRUCTIONS

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

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

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

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

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

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

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

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 172269
File Nbr: L 11030

Feb. 17, 2003

MARK LARSON
TEXACO EXPLORATION INC.
P.O. BOX 730
HOBBS, NM 88240

Greetings:

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

Proof of Application of Water to Beneficial Use will be due in this office on 02/28/2007. This proof must be signed by an engineer or land surveyor who is registered in the State of New Mexico, and who must be designated and paid by you. As soon as you are ready to have final inspection made, you should send this office the name of the engineer or land surveyor you wish to employ so that we may send him the necessary instructions.

Proof of Completion of Well(s) will be filed in this office after completion and installation of equipment, but in no event later than 02/28/2005. Proof of Completion of Well forms shall be mailed upon request.

Your rights under this permit will expire on 02/28/2007, unless Proofs of Completion of Well(s) and Proof of Application of Water to Beneficial Use are filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

Andy Morley

Andy Morley
(505)622-6467

Enclosure
cc: Santa Fe Office

nonpbupcw

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

SPECIFIC CONDITIONS OF APPROVAL

DIV The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.

CU The maximum amount of consumptive use of water in any year is not to exceed 3.000 acre-feet per year.

1B Depth of the well shall not exceed the thickness of the Ogallala formation.

5B A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor on or before the 10th of Jan., April, July, and Oct. of each year for the 3 preceeding calendar months.

7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

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

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

PCW The Point of Diversion L 11030 must be completed and the Proof of Completion of Works filed on or before 02/28/2005.

PBU The Proof of Beneficial use must be filed on or before 02/28/2007.

This well shall be drilled at least 660 feet from all wells of other ownership.

1. This application is approved as follows:

PERMIT NO: L-11,030

SOURCE: Shallow Ground Water

POINT OF DIVERSION:
L-11,030 NE1/4SE1/4 Sec. 24, Twp 19S, Rge 36E, NMPM

PURPOSE OF USE: Environmental Remediation

PLACE OF USE:
NE1/4SE1/4 Sec. 24, Twp 19S, Rge 36E, NMPM

AMOUNT OF WATER:
3.0 acre-feet per annum (consumptive use) for Environmental Remediation purposes.

3. The granting of this application, subject to the conditions recommended will not cause impairment of, nor be detrimental to existing water rights. The granting of the application would not be contrary to the conservation of water within the State of New Mexico, nor be detrimental to the public welfare of the state.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 10/01/1999	Pub. of Notice Ordered: 01/19/2000
Date Returned - Correction:	Affidavit of Pub. Filed: 03/14/2000

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

Witness my hand and seal this 17 day of Feb A.D., 2003

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

By: _____
Art Mason

Trn Desc: L 11030

File Number: L 11030
Trn Number: 172269

Revised August 1967

IMPORTANT—READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM

2-09703
15.

APPLICATION FOR PERMIT

Divert

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

Date Received 10-1-99 File No. L-11030

1. Name of applicant Texaco Exploration and Production, Inc.
   Mailing address P. O. Box 730
   City and State Hobbs, NM 88240-0730
2. Source of water supply Shallow Water Aquifer, located in Lea County Basin
   (artesian or shallow water aquifer) (name of underground basin)
3. The well is to be located in the NE ¼ SE ¼ ¼, Section 24 Township 19 South
   Range ~~36 East~~ N.M.P.M., or Tract No. of Map No. of the District,
   on land owned by State of New Mexico - Land Office
4. Description of well: name of driller RW-1, Scarborough Drilling, Inc., Lamesa, Texas;
   Outside Diameter of casing 4" inches; Approximate depth to be drilled 70' feet;
5. Quantity of water to be appropriated and beneficially used ~~3.25~~ 3.0 acre feet,
   (consumptive use, diversion)
   for Environmental Remediation purposes.
6. Acreage to be irrigated or place of use acres.

Subdivision	Section	Township	Range	Acres	Owner

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

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

Texaco Exploration and Production, Inc., Permittee,

By: Mark J. Larson

Subscribed and sworn to before me this 29th day of September, A.D., 1999.

My commission expires 4-14-2002 Vickie A. Inman
Notary Public

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

T#172269

Number of this permit _____

ACTION OF STATE ENGINEER

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

See attached conditions

Proof of completion of well shall be filed on or before February 28, 2005, ~~19~~ _____

Proof of application of water to beneficial use shall be filed on or before February 28, 2007, ~~19~~ _____

Witness my hand and seal this 17th day of February, A.D., ~~19~~ 2003

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

By: _____
Art Mason, District II Supervisor

INSTRUCTIONS

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

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

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

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

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

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

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

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 172270
File Nbr: L 11031

Feb. 17, 2003

New Mexico
"F" State

MARK LARSON
TEXACO EXPLORATION INC.
P.O. BOX 730
HOBBS, NM 88240

Greetings:

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

Proof of Application of Water to Beneficial Use will be due in this office on 02/28/2007. This proof must be signed by an engineer or land surveyor who is registered in the State of New Mexico, and who must be designated and paid by you. As soon as you are ready to have final inspection made, you should send this office the name of the engineer or land surveyor you wish to employ so that we may send him the necessary instructions.

Proof of Completion of Well(s) will be filed in this office after completion and installation of equipment, but in no event later than 02/28/2005. Proof of Completion of Well forms shall be mailed upon request.

Your rights under this permit will expire on 02/28/2007, unless Proofs of Completion of Well(s) and Proof of Application of Water to Beneficial Use are filed or an Application for Extension of Time is received in this office on or before that date.

Sincerely,

Andy Morley

Andy Morley
(505)622-6467

Enclosure
cc: Santa Fe Office

nonpbupcw

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

SPECIFIC CONDITIONS OF APPROVAL

DIV The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.

CU The maximum amount of consumptive use of water in any year is not to exceed 3.000 acre-feet per year.

1B Depth of the well shall not exceed the thickness of the Ogallala formation.

5B A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor on or before the 10th of Jan., April, July, and Oct. of each year for the 3 preceeding calendar months.

7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

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

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

PCW The Point of Diversion L 11031 must be completed and the Proof of Completion of Works filed on or before 02/28/2005.

PBU The Proof of Beneficial use must be filed on or before 02/28/2007.

This well shall be drilled at least 660 feet from all wells of other ownership.

1. This application is approved as follows:

PERMIT NO: L-11,031

SOURCE: Shallow Ground Water

POINT OF DIVERSION:
L-11,031 NE1/4SE1/4 Sec. 24, Twp 19S, Rge 36E, NMPM

PURPOSE OF USE: Environmental Remediation

PLACE OF USE:
NE1/4SE1/4 Sec. 24, Twp 19S, Rge 36E, NMPM

AMOUNT OF WATER:
3.0 acre-feet per annum (consumptive use) for Environmental Remediation purposes.

2. The granting of this application, subject to the conditions recommended will not cause impairment of, nor be detrimental to existing water rights. The granting of the application would not be contrary to the conservation of water within the State of New Mexico, nor be detrimental to the public welfare of the state.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 10/01/1999 Pub. of Notice Ordered: 01/19/2000
Date Returned - Correction: Affidavit of Pub. Filed:

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

Witness my hand and seal this 17 day of Feb A.D., 2003

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

By: Art Mason

Trn Desc: L 11031 File Number: L 11031
Trn Number: 172270

Revised August 1967

IMPORTANT—READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM

2-09703
15.

APPLICATION FOR PERMIT

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

Date Received 10-1-99 File No. L-11031

1. Name of applicant Texaco Exploration and Production, Inc.
   Mailing address P. O. Box 730
   City and State Hobbs, NM 88240-0730
2. Source of water supply Shallow Water Aquifer, located in Lea County Basin
   (artesian or shallow water aquifer) (name of underground basin)
3. The well is to be located in the NE ¼ SE ¼ ¼, Section 24 Township 19 South
   Range 36 East N.M.P.M., or Tract No. of Map No. of the District,
   on land owned by State of New Mexico - Land Office
4. Description of well: name of driller RW-3, Scarborough Drilling, Inc., Lamesa, Texas;
   Outside Diameter of casing 4" inches; Approximate depth to be drilled 70' feet;
5. Quantity of water to be appropriated and beneficially used NL ~~3.25~~ 3.0 acre feet,
   (consumptive use, diversion)
   for Environmental Remediation purposes.
6. Acreage to be irrigated or place of use acres.

Subdivision	Section	Township	Range	Acres	Owner

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

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

Texaco Exploration and Production, Inc, Permittee,

By: [signature].

Subscribed and sworn to before me this 29th day of September, A.D., 19 99.

My commission expires 4-14-2002 [signature] Notary Public

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

T# 172270

Number of this permit _____

ACTION OF STATE ENGINEER

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

see attached conditions

Proof of completion of well shall be filed on or before February 28, 2005, ~~19~~ _____

Proof of application of water to beneficial use shall be filed on or before February 28, 2007, ~~19~~ _____

Witness my hand and seal this 17th day of February, A.D., ~~19~~ 20003.

John R. D'Antonio, Jr., P.E.
~~Thomas C. Turney~~, State Engineer

By: _____
Art Mason, District II Supervisor

INSTRUCTIONS

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

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

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

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

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

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

APPENDIX B

LABORATORY REPORTS

Summary Report

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

Report Date: June 14, 2005

Work Order: 5060810

Project Name: New Mexico
Project Number: 0-0114

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
64634	MW-8	water	2005-06-06	11:50	2005-06-08
64635	MW-5	water	2005-06-06	12:25	2005-06-08
64636	MW-7	water	2005-06-06	12:57	2005-06-08
64637	MW-4	water	2005-06-06	13:40	2005-06-08
64638	MW-3	water	2005-06-06	14:15	2005-06-08
64639	MW-6	water	2005-06-06	15:00	2005-06-08
64640	WW-1	water	2005-06-06	15:17	2005-06-08
64641	WW-2	water	2005-06-06	15:24	2005-06-08
64642	Dup-1	water	2005-06-06	00:00	2005-06-08

	BTEX				MTBE
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
64634 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100	
64635 - MW-5	<0.00100	<0.00100	<0.00100	<0.00100	
64636 - MW-7	<0.00100	<0.00100	<0.00100	<0.00100	
64637 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100	
64638 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100	
64639 - MW-6	<0.00100	<0.00100	<0.00100	<0.00100	
64640 - WW-1	<0.00100	<0.00100	<0.00100	<0.00100	
64641 - WW-2	<0.00100	<0.00100	<0.00100	<0.00100	
64642 - Dup-1	<0.00100	<0.00100	<0.00100	<0.00100	

Sample: 64634 - MW-8

Param	Flag	Result	Units	RL
Chloride		**227**	mg/L	0.500

Sample: 64635 - MW-5

Param	Flag	Result	Units	RL
Chloride		**41.1**	mg/L	0.500

Sample: 64636 - MW-7

Param	Flag	Result	Units	RL
Chloride		**221**	mg/L	0.500

Sample: 64637 - MW-4

Param	Flag	Result	Units	RL
Chloride		**58.4**	mg/L	0.500

Sample: 64638 - MW-3

Param	Flag	Result	Units	RL
Chloride		**34.3**	mg/L	0.500

Sample: 64639 - MW-6

Param	Flag	Result	Units	RL
Chloride		**66.7**	mg/L	0.500

Sample: 64640 - WW-1

Param	Flag	Result	Units	RL
Chloride		**63.4**	mg/L	0.500

Sample: 64641 - WW-2

Param	Flag	Result	Units	RL
Chloride		**55.3**	mg/L	0.500

Sample: 64642 - Dup-1

Param	Flag	Result	Units	RL
Chloride		**66.0**	mg/L	0.500

TRACEANALYSIS, INC.

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

Analytical and Quality Control Report

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

Report Date: June 14, 2005

Work Order: 5060810

Project Name: New Mexico
Project Number: 0-0114

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
64634	MW-8	water	2005-06-06	11:50	2005-06-08
64635	MW-5	water	2005-06-06	12:25	2005-06-08
64636	MW-7	water	2005-06-06	12:57	2005-06-08
64637	MW-4	water	2005-06-06	13:40	2005-06-08
64638	MW-3	water	2005-06-06	14:15	2005-06-08
64639	MW-6	water	2005-06-06	15:00	2005-06-08
64640	WW-1	water	2005-06-06	15:17	2005-06-08
64641	WW-2	water	2005-06-06	15:24	2005-06-08
64642	Dup-1	water	2005-06-06	00:00	2005-06-08

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.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 64634 - MW-8

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0929	mg/L	1	0.100	93	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0929	mg/L	1	0.100	93	63 - 119

Sample: 64634 - MW-8

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18774	Date Analyzed:	2005-06-08	Analyzed By:	WB
Prep Batch:	16497	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		227	mg/L	10	0.500

Sample: 64635 - MW-5

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0900	mg/L	1	0.100	90	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0888	mg/L	1	0.100	89	63 - 119

Sample: 64635 - MW-5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18774	Date Analyzed:	2005-06-08	Analyzed By:	WB
Prep Batch:	16497	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**41.1**	mg/L	5	0.500

Sample: 64636 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0991	mg/L	1	0.100	99	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0921	mg/L	1	0.100	92	63 - 119

Sample: 64636 - MW-7

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18774	Date Analyzed:	2005-06-08	Analyzed By:	WB
Prep Batch:	16497	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**221**	mg/L	10	0.500

Sample: 64637 - MW-4

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0984	mg/L	1	0.100	98	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0936	mg/L	1	0.100	94	63 - 119

Sample: 64637 - MW-4

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18774	Date Analyzed:	2005-06-08	Analyzed By:	WB
Prep Batch:	16497	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**58.4**	mg/L	5	0.500

Sample: 64638 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0956	mg/L	1	0.100	96	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0948	mg/L	1	0.100	95	63 - 119

Sample: 64638 - MW-3

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18774	Date Analyzed:	2005-06-08	Analyzed By:	WB
Prep Batch:	16497	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**34.3**	mg/L	5	0.500

Sample: 64639 - MW-6

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0948	mg/L	1	0.100	95	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0923	mg/L	1	0.100	92	63 - 119

Sample: 64639 - MW-6

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18775	Date Analyzed:	2005-06-10	Analyzed By:	WB
Prep Batch:	16499	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		66.7	mg/L	5	0.500

Sample: 64640 - WW-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0971	mg/L	1	0.100	97	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0939	mg/L	1	0.100	94	63 - 119

Sample: 64640 - WW-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18775	Date Analyzed:	2005-06-10	Analyzed By:	WB
Prep Batch:	16499	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		63.4	mg/L	5	0.500

Sample: 64641 - WW-2

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0933	mg/L	1	0.100	93	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0898	mg/L	1	0.100	90	63 - 119

Sample: 64641 - WW-2

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18775	Date Analyzed:	2005-06-10	Analyzed By:	WB
Prep Batch:	16499	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		55.3	mg/L	5	0.500

Sample: 64642 - Dup-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	18736	Date Analyzed:	2005-06-08	Analyzed By:	
Prep Batch:	16476	Sample Preparation:	2005-06-08	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0893	mg/L	1	0.100	89	77.6 - 123
4-Bromofluorobenzene (4-BFB)		0.0886	mg/L	1	0.100	89	63 - 119

Sample: 64642 - Dup-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	18775	Date Analyzed:	2005-06-10	Analyzed By:	WB
Prep Batch:	16499	Sample Preparation:	2005-06-08	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**66.0**	mg/L	5	0.500

Method Blank (1) QC Batch: 18736

Parameter	Flag	MDL Result	Units	RL
Benzene		0.000600	mg/L	0.001
Toluene		<0.000299	mg/L	0.001
Ethylbenzene		<0.000469	mg/L	0.001
Xylene		<0.000787	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0954	mg/L	1	0.100	95	75.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0933	mg/L	1	0.100	93	51.4 - 119

Method Blank (1) QC Batch: 18774

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0504	mg/L	0.5

Method Blank (1) QC Batch: 18775

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0504	mg/L	0.5

Laboratory Control Spike (LCS-1) QC Batch: 18736

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0981	0.0984	mg/L	1	0.100	<0.000338	98	0	79.2 - 122	8.8
Toluene	0.0974	0.0964	mg/L	1	0.100	<0.000299	97	1	76.2 - 116	9.4
Ethylbenzene	0.0962	0.0969	mg/L	1	0.100	<0.000469	96	1	73.2 - 116	8.5
Xylene	0.286	0.288	mg/L	1	0.300	<0.000787	95	1	72.5 - 116	8.4

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0961	mg/L	1	0.100	101	96	77.6 - 123
4-Bromofluorobenzene (4-BFB)	0.0948	0.0957	mg/L	1	0.100	95	96	63 - 119

Laboratory Control Spike (LCS-1) QC Batch: 18774

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	<0.0504	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: 18775

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	<0.0504	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: 18774 Spiked Sample: 64607

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	2210	2220	mg/L	100	12.5	1031	94	0	70.7 - 124	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: 18775 Spiked Sample: 64642

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	128	127	mg/L	5	12.5	66	99	1	70.7 - 124	20

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

Standard (ICV-1) QC Batch: 18736

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0969	97	85 - 115	2005-06-08
Toluene		mg/L	0.100	0.0950	95	85 - 115	2005-06-08
Ethylbenzene		mg/L	0.100	0.0955	96	85 - 115	2005-06-08
Xylene		mg/L	0.300	0.283	94	85 - 115	2005-06-08

Standard (CCV-1) QC Batch: 18736

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0980	98	85 - 115	2005-06-08
Toluene		mg/L	0.100	0.0963	96	85 - 115	2005-06-08
Ethylbenzene		mg/L	0.100	0.0966	97	85 - 115	2005-06-08

continued ...

standard continued...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.287	96	85 - 115	2005-06-08

Standard (CCV-2) QC Batch: 18736

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0985	98	85 - 115	2005-06-08
Toluene		mg/L	0.100	0.0973	97	85 - 115	2005-06-08
Ethylbenzene		mg/L	0.100	0.0960	96	85 - 115	2005-06-08
Xylene		mg/L	0.300	0.283	94	85 - 115	2005-06-08

Standard (ICV-1) QC Batch: 18774

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	2005-06-08

Standard (CCV-1) QC Batch: 18774

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.4	99	90 - 110	2005-06-08

Standard (ICV-1) QC Batch: 18775

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.4	99	90 - 110	2005-06-10

Standard (CCV-1) QC Batch: 18775

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	2005-06-10

Report Date: June 14, 2005
0-0114

Work Order: 5060810
New Mexico

Page Number: 10 of 10

TRACE Analysis

5060810

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: CheuTex

SITE MANAGER: MARK LARSON

PROJECT NO.: 0-0114

PROJECT NAME: NM "F" State

PAGE 1 OF 1

LAB. PO #

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

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: BTEX	PARAMETERS/METHOD NUMBER: Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
6/6/05	1150	✓			MW8 64634	3	2	–		
	1225				MW5 35					
	1257				MW7 36					
	1340				MW4 37					
	1415				MW3 38					
	1500				MW6 39					
	1517				MW-1 40					
	1524				MW-2 41					
					DUP1 42					

SAMPLED BY: (Signature) DATE: 6/6/05 TIME: 1536

RELINQUISHED BY: (Signature) DATE: 6/7/05 TIME: 1630

RECEIVED BY: (Signature) DATE: 6/7/05 TIME: 1630

RELINQUISHED BY: (Signature) DATE: 6/07/05 TIME: 1745

RECEIVED BY: (Signature) DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #: 8139456 7
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: Trace Analysis
ADDRESS:
CITY: Lubbock STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 6/8/05 TIME: 9:40

SAMPLE CONDITION WHEN RECEIVED: 4°C

LA CONTACT PERSON:

SAMPLE TYPE:

27 samples RS

1 PAGE Analysis

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:	SITE MANAGER:
ChevTex	MARK LARSON
PROJECT NO.:	PROJECT NAME:
0-0114	NM "F" State
PAGE 1 OF 1	LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: BTEX	PARAMETERS/METHOD NUMBER: Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
6/6/05	1150	✓			MW8 64634	3	2.	—		
	1225				MW5 35					
	1257				MW7 36					
	1340				MW4 37					
	1415				MW3 38					
	1500				MW6 39					
	1517				WW-1 40					
	1524				WW-2 41					
					DUP1 42					

SAMPLED BY: (Signature) DATE: 6/6/05 TIME: 1536

RELINQUISHED BY: (Signature) DATE: 6/7/05 TIME: 1630

RECEIVED BY: (Signature) DATE: 6/7/05 TIME: 1630

RELINQUISHED BY: (Signature) DATE: 6/07/05 TIME: 1745

RECEIVED BY: (Signature) DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #: 8139456 7
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

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

RECEIVED BY: (Signature)
DATE: 6.8.05 TIME: 9:40

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

SAMPLE CONDITION WHEN RECEIVED:
4°C

LA CONTACT PERSON:

SAMPLE TYPE:

27 samples TS

Pace Analytical®
New Orleans Laboratory

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

December 27, 2005

Jim Buice
CRA
2135 S. Loop 250 West
Midland, TX 79703

RE: Project: 2056270
RE: Project ID: NM "F" STATE BATTERY

Dear Jim Buice:

Enclosed are the analytical results for sample(s) received by the laboratory on December 15, 2005. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Olavesen

Cindy Olavesen

ACCREDITED IN ACCORDANCE WITH nelac

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

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New Orleans Laboratory

Report of Laboratory Analysis

Project Number: 2056270

ACCREDITED IN ACCORDANCE WITH nelac

12/27/2005 14:14:29

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Sample Cross Reference Report

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Project: NM "F" STATE BATTERY

Project No.: 2056270

Sample ID	Lab ID	Matrix	Collection Date/Time		Received Date/Time	
MW-3	20419478	Water	12/13/2005	11:40	12/15/2005	09:00
MW-4	20419481	Water	12/13/2005	12:30	12/15/2005	09:00
MW-5	20419482	Water	12/13/2005	13:30	12/15/2005	09:00
MW-6	20419483	Water	12/13/2005	12:10	12/15/2005	09:00
MW-7	20419484	Water	12/13/2005	13:07	12/15/2005	09:00
MW-8	20419486	Water	12/13/2005	11:10	12/15/2005	09:00
WW-1	20419488	Water	12/13/2005	13:55	12/15/2005	09:00
WW-2	20419489	Water	12/13/2005	14:00	12/15/2005	09:00
DUP1	20419490	Water	12/13/2005		12/15/2005	09:00

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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: MW-3 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419478 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021 WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/23/05 **Analyzed:** 12/23/05 16:30 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

ND denotes Not Detected at or above the adjusted reporting limit.
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Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
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Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Louisiana Dept. of Environmental Quality (LELAP) - 02006
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Louisiana Dept. of Health and Hospitals / Drinking Water - LA050004
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: MW-4 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419481 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021_WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/22/05 **Analyzed:** 12/22/05 21:30 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

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LELAP # 02006

Client: CRA

Client ID: MW-5 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419482 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021 WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/22/05 **Analyzed:** 12/22/05 21:53 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

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Phone: 504.469.0333
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LELAP # 02006

Client: CRA

Client ID: MW-6 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419483 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021 WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/22/05 **Analyzed:** 12/22/05 22:16 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

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DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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Phone: 504.469.0333
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LELAP # 02006

Client: CRA

Client ID: MW-7 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419484 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021 WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/22/05 **Analyzed:** 12/22/05 22:39 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

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DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: MW-8 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419486 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021_WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/22/05 **Analyzed:** 12/22/05 23:02 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

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Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: WW-1 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419488 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021_WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/23/05 **Analyzed:** 12/23/05 00:10 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

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Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
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For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
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Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: WW-2 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419489 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021_WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/23/05 **Analyzed:** 12/23/05 00:33 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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LELAP # 02006

Client: CRA

Client ID: DUP1 **Site:** None

Project: NM "F" STATE BATTERY **Project No.:** 2056270 **Sample Qu:**

Lab ID: 20419490 **Matrix:** Water **% Moisture:** n/a

Description: None **Prep Level:** Water **Batch:** 67617

Method: 8021 VOAs Water **Units:** ug/L **Target List:** 8021_WL20

Collected: 12/13/05 **Received:** 12/15/05

Prep Factor: 1 **Leached:** **Prepared:** 12/23/05 **Analyzed:** 12/23/05 16:52 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
	m&p-Xylene	1	ND		10.0	
95-47-6	o-Xylene	1	ND		5.00	

5 compound(s) reported

12/27/2005 14:14:29

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Client ID: MW-3
Client: CRA
Project: NM "F" STATE BATTERY
Site: None
Lab ID: 20419478
Project No.: 2056270
Description: None
Matrix: Water
%Moisture: n/a
Collected: 12/13/05
Received: 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Chloride	EPA 325.2	67484	1	29.3		mg/L	1.00	19-Dec-05	19-Dec-05	15:16 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Client ID: MW-4
Project: NM "F" STATE BATTERY
Lab ID: 20419481
Description: None

Client: CRA
Site: None
Project No.: 2056270
Matrix: Water
%Moisture: n/a
Collected: 12/13/05
Received: 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Chloride	EPA 325.2	67484	1	55.3		mg/L	1.00	19-Dec-05	19-Dec-05 15:16 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Client ID: MW-5
Project: NM "F" STATE BATTERY
Lab ID: 20419482
Description: None

Client: CRA
Site: None
Project No.: 2056270
Matrix: Water
%Moisture: n/a
Collected: 12/13/05
Received: 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Chloride	EPA 325.2	67484	1	39.7		mg/L	1.00	19-Dec-05	19-Dec-05	15:16 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Phone: 504.469.0333
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LELAP # 02006

Client ID: MW-6
Project: NM "F" STATE BATTERY
Lab ID: 20419483
Description: None

Client: CRA
Site: None
Project No.: 2056270
Matrix: Water **%Moisture:** n/a
Collected: 12/13/05 **Received:** 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Chloride	EPA 325.2	67484	1	80.9		mg/L	1.00	19-Dec-05	19-Dec-05 15:16	TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Client ID: MW-7 **Client:** CRA

Project: NM "F" STATE BATTERY **Site:** None

Lab ID: 20419484 **Project No.:** 2056270

Description: None **Matrix:** Water **%Moisture:** n/a

Collected: 12/13/05 **Received:** 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Chloride	EPA 325.2	67484	10	204.	D1	mg/L	10.0	19-Dec-05	19-Dec-05 15:26 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Client ID: MW-8
Project: NM "F" STATE BATTERY
Lab ID: 20419486
Description: None

Client: CRA
Site: None
Project No.: 2056270
Matrix: Water
%Moisture: n/a
Collected: 12/13/05
Received: 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Chloride	EPA 325.2	67484	1	144.		mg/L	1.00	19-Dec-05	19-Dec-05	15:16 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Client ID: WW-1 **Client:** CRA

Project: NM "F" STATE BATTERY **Site:** None

Lab ID: 20419488 **Project No.:** 2056270

Description: None **Matrix:** Water **%Moisture:** n/a

Collected: 12/13/05 **Received:** 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Chloride	EPA 325.2	67484	1	41.1		mg/L	1.00	19-Dec-05	19-Dec-05 15:16 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Client ID: WW-2 **Client:** CRA

Project: NM "F" STATE BATTERY **Site:** None

Lab ID: 20419489 **Project No.:** 2056270

Description: None **Matrix:** Water **%Moisture:** n/a

Collected: 12/13/05 **Received:** 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Chloride	EPA 325.2	67484	1	75.3		mg/L	1.00	19-Dec-05	19-Dec-05 15:16 TAE(1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Client ID: DUP1 **Client:** CRA

Project: NM "F" STATE BATTERY **Site:** None

Lab ID: 20419490 **Project No.:** 2056270

Description: None **Matrix:** Water **%Moisture:** n/a

Collected: 12/13/05 **Received:** 12/15/05

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Chloride	EPA 325.2	67484	1	28.9		mg/L	1.00	19-Dec-05	19-Dec-05	15:24 TAE (1)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Quality Control

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Method: GC Volatile Organics **Project:** 2056270

Batch: 67617 **LCS:** 20420304 12/22/2005 5:18:00 PM

Units: ug/L **MS:** 20420340 12/22/2005 6:03:00 PM

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Benzene	20	109			20	51 *	57	1	78 - 127	52 - 142	20	
Ethylbenzene	20	108			20	68	91	5	87 - 129	54 - 147	20	
Toluene	20	107			20	55 *	63	1	85 - 131	61 - 145	20	
m&p-Xylene	40	106			40	18 *	33 *	2	70 - 130	56 - 153	20	
o-Xylene	20	107			20	30 *	46 *	2	70 - 130	61 - 149	20	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

12/27/2005 14:14:30

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LELAP # 02006

Method: GC Volatile Organics **Project:** 2056270

Batch: 67617 **LCS:** 20420524 12/23/2005 3:22:00 PM

Units: ug/L **MS:**

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Benzene	20	111							78 - 127	-		
Ethylbenzene	20	109							87 - 129	-		
Toluene	20	111							85 - 131	-		
m&p-Xylene	40	108							70 - 130	-		
o-Xylene	20	108							70 - 130	-		

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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Report of Batch Surrogate Recovery

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Phone: 504.469.0333
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LELAP # 02006

Report: 2056270 **Batch: 67617**

Lab ID	Type and Qualifiers	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20419478	Sample	83							
20419481	Sample	82							
20419482	Sample	86							
20419483	Sample	86							
20419484	Sample	87							
20419486	Sample	82							
20419488	Sample	81							
20419489	Sample	82							
20419490	Sample	83							
20420301	BLANK	78							
20420302	BLANK	83							
20420303	BLANK	80							
20420304	LCS	91							
20420340	MS	124							
20420341	MSD G1	131 *							
20420523	BLANK	80							
20420524	LCS	92							
	QC limits:	70-130							

Sur 1: 4-Bromofluorobenzene (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

12/27/2005 14:14:31

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Report of Method Blank

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Phone: 504.469.0333
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LELAP # 02006

Lab ID: 20420301

Description: 8021 VOAs Water Blank **Project No.:** 2056270

Method: EPA 8021 **Batch:** 67617 **Units:** ug/L

Prep Factor: 1 **Leached:** **Prepared:** 22-Dec-05 **Analyzed:** 12/22/05 16:55 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
100-41-4	Ethylbenzene	1	ND		0.500
	m&p-Xylene	1	ND		1.00
1634-04-4	Methyl-tert-butyl ether	1	ND		0.500
95-47-6	o-Xylene	1	ND		0.500
108-88-3	Toluene	1	ND		0.500
71-43-2	Benzene	1	ND		0.500

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

12/27/2005 14:14:31

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - LA050004
Louisiana Dept. of Health and Hospitals / Drinking Water - LA050004
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

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Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Lab ID: 20420302

Description: 8021 VOAs Water Blank **Project No.:** 2056270

Method: EPA 8021 **Batch:** 67617 **Units:** ug/L

Prep Factor: 1 **Leached:** **Prepared:** 22-Dec-05 **Analyzed:** 12/22/05 19:35 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
108-88-3	Toluene	1	ND		0.500
71-43-2	Benzene	1	ND		0.500
100-41-4	Ethylbenzene	1	ND		0.500
	m&p-Xylene	1	ND		1.00
1634-04-4	Methyl-tert-butyl ether	1	ND		0.500
95-47-6	o-Xylene	1	ND		0.500

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

12/27/2005 14:14:31

New Orleans Laboratory Certifications
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Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

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LELAP # 02006

Lab ID: 20420303

Description: 8021 VOAs Water Blank **Project No.:** 2056270

Method: EPA 8021 **Batch:** 67617 **Units:** ug/L

Prep Factor: 1 **Leached:** **Prepared:** 22-Dec-05 **Analyzed:** 12/22/05 23:48 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
100-41-4	Ethylbenzene	1	ND		0.500
	m&p-Xylene	1	ND		1.00
1634-04-4	Methyl-tert-butyl ether	1	ND		0.500
95-47-6	o-Xylene	1	ND		0.500
108-88-3	Toluene	1	ND		0.500
71-43-2	Benzene	1	ND		0.500

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Lab ID: 20420523

Description: 8021 VOAs Water Blank **Project No.:** 2056270

Method: EPA 8021 **Batch:** 67617 **Units:** ug/L

Prep Factor: 1 **Leached:** **Prepared:** 23-Dec-05 **Analyzed:** 12/23/05 14:59 CWW (1)

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
108-88-3	Toluene	1	ND		0.500
71-43-2	Benzene	1	ND		0.500
100-41-4	Ethylbenzene	1	ND		0.500
	m&p-Xylene	1	ND		1.00
1634-04-4	Methyl-tert-butyl ether	1	ND		0.500
95-47-6	o-Xylene	1	ND		0.500

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

Pace Analytical
New Orleans Laboratory

Report of Quality Control

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Phone: 504.469.0333
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LELAP # 02006

Wet Chemistry Quality Control Results

Project No.: 2056270

Parameter	Batch	Blank	ARL	Units	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Chloride	67484	ND	1.00	mg/L	93	97			1000	78	79	0		90 - 120	75 - 125	20	

12/27/2005 14:14:31

ARL denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.
* denotes recovery outside of QC limits.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Project No.: 2056270

General Qualifiers

Qualifier	Qualifier Description
D1	The analysis was performed at a dilution due to the high analyte concentration.

APPENDIX C

GROUNDWATER/GRADIENT CONTROL PROCESS AND INSTRUMENTATION DIAGRAM

T-100
SHOTGUN TANK
500 BBL

T-101
500 BBL
WATER TANK

T-102
500 BBL
PRODUCT TANK

TO TRUCK LOADING
TO TRUCK LOADING
TO TRUCK LOADING
TRUCK LOADING STATION

TO RECOVERY WELLS W-100

FROM RECOVERY WELLS W-101

480 VOLTS POWER BOXES

DRAIN
3-PHASE 15 HP MOTOR

DRAIN
3-PHASE 1.5 HP MOTOR

TANK

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO
EXPLORATION AND PRODUCTION COMPANY
NEW MEXICO STATE "F"
SECTION 24, T-19-S, R-36-E

P & ID

DATE	8/10/04
NAME:	SJA
FILE:	O-0114

Larson & Associates, inc.
Environmental Consultants