

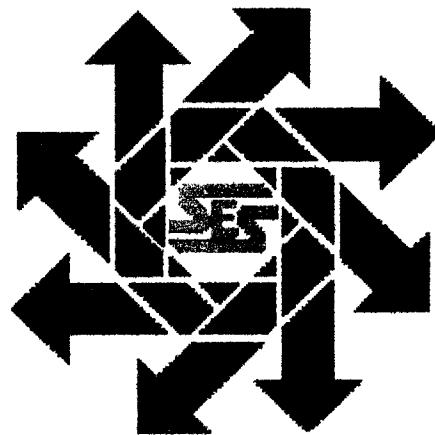
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REPORTS

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Chevron USA

**Dynegy – Monument Site
Monitor Well Report
Lea County, New Mexico**

For Year Ending December 31, 1999

*Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 103
Hobbs, New Mexico 88240
(505) 397-0510*

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I. Background

The subject property is located in Lea County approximately 5 miles southwest of Monument, New Mexico. Mr. James Cooper currently owns the surface rights of the property and the mineral rights are under lease to Chevron. The property has been the site of condensate/liquid product leaks from a pipeline previously operated by Warren Petroleum as well as an abandoned burn pit.

Safety & Environmental Solutions, Inc. (SESI) performed sampling and data collection on the six (6) ground water monitor wells at the site (See Vicinity Map). The casing size in all wells is 4".

II. Work Performed

Beginning in April 1999 SESI personnel began bailing the six monitor wells located at the site. Ground water samples were taken from each well after hand bailer was used to develop the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The development water was stored in a 400-gallon drum under the custody of Safety & Environmental Solutions, Inc. for disposal upon completion of analytical testing. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. (See Analytical Data)

In addition to the sampling, SESI also measured the depth to the top of the water table and the total depth of each well. The depth to the top of ground water was measured using a Solinst water level indicator. The total depth of each well was measured in order to compute the proper casing volumes. (See Cumulative Top of Water Table)

SESI environmental supervisor W. Dee Whatley installed a Skim-Rite skimmer pump in SW #1 on August 25, 1999 to facilitate the removal of free phase hydrocarbon from the top of the water table in the well. The system was initially run daily for approximately eight hour periods for the first four days, then every other day, then twice weekly until October 14, 1999. Then system was then left off for two weeks to gauge recovery. The system was reactivated on October 27, 1999 and run biweekly until November 9, 1999, when the system was only activated on a weekly basis until December 14, 1999, when the system was left off until December 27, 1999. During the run periods, the system was left on for approximately eight hours each time. (See Skimmer Pump Cumulative Data)

III. Summary

The analysis of the groundwater samples performed by Cardinal Laboratories indicate the presence of elevated levels of total Dissolve Solids (TDS), Chloride and Fluoride in all monitor wells throughout the tests period. Manganese fluctuates above and below the allowable limit of 0.2ppm throughout the test period. Sulfate also fluctuated above and below the allowable limit of 600ppm during the first two test periods but remained below the limit on the third sampling period. Lead is present in elevated levels in all wells on the first two sampling periods only. Silver was at elevated levels only on the initial test on April 8, 1999.

As indicated by the top of water in the wells, groundwater flow is relatively flat but in a primarily southeasterly direction.

From the initial startup to the end of the test period, the skimmer pump had recovered 182gal. of fluid, with approximately 43gal. of oil recovered and 139gal. of water recovered with this system. The amount of free product recovered has substantially reduced from the initial startup of the skimmer system and the lengthening of the well recovery period between system cycles reflects this situation.

IV. Figures and Appendices

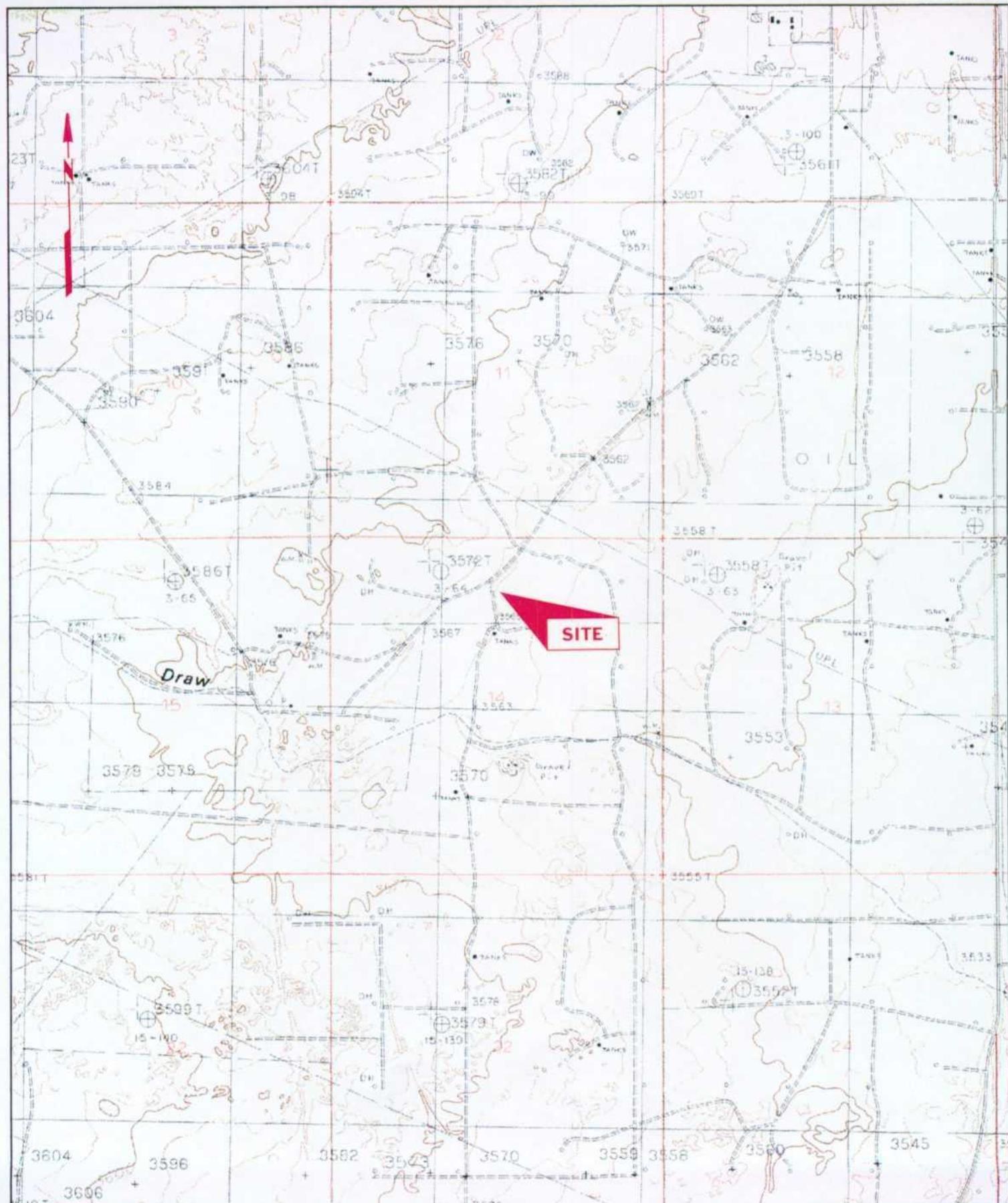
Figures:

- Vicinity Map
- Potentiometric Maps
- Water Flow Diagrams
- Skimmer Pump Site Maps

Appendices:

- Cumulative Top of Water Data
- Cumulative Well Test Data
- Skimmer Pump Cumulative Data
- Analytical Results

Figure 1
Vicinity Map



Name: MONUMENT SOUTH

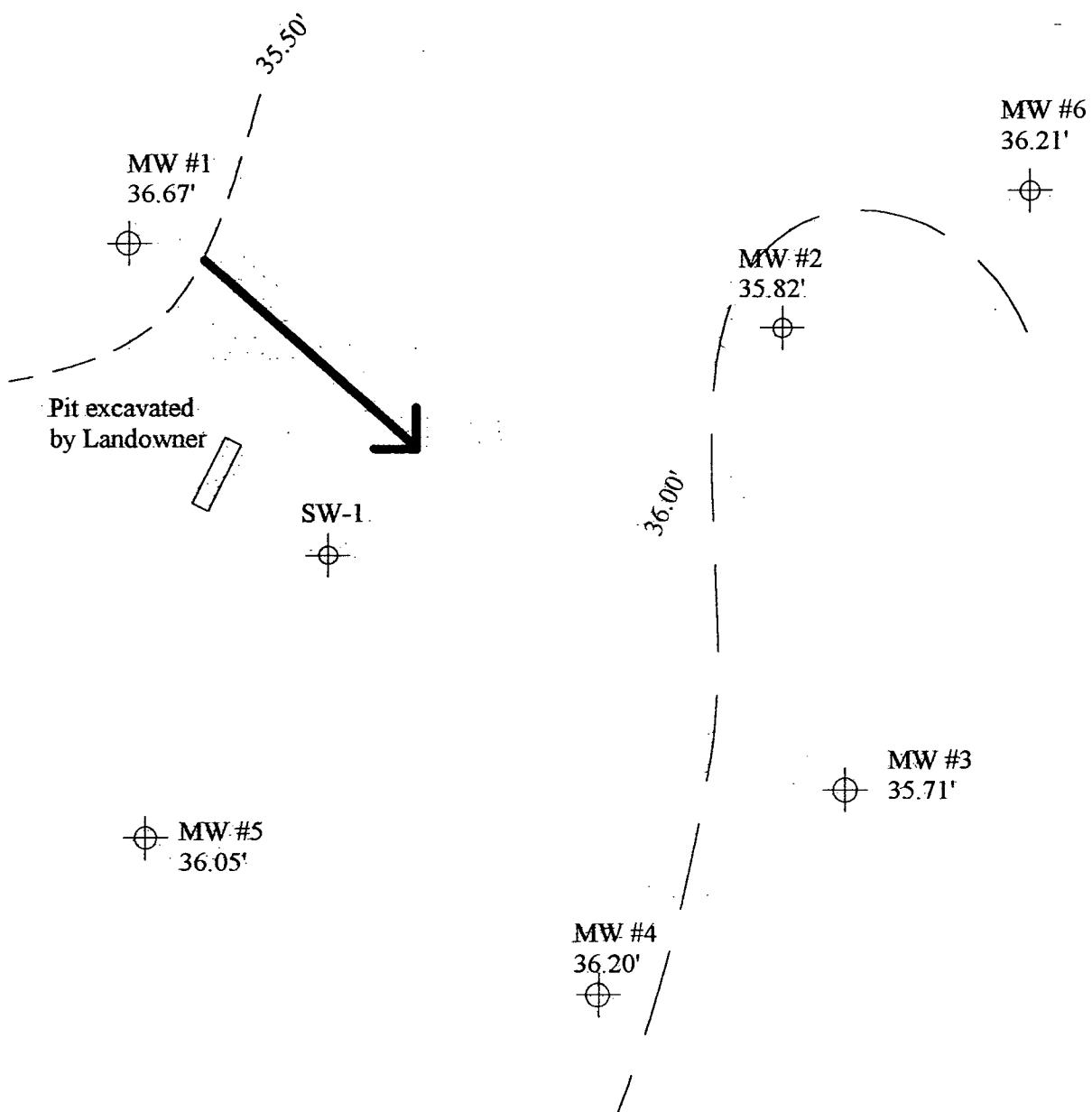
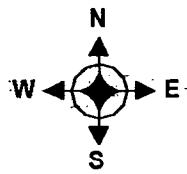
Date: 3/31/100

Scale: 1 inch equals 2000 feet

Location: 032° 34' 38.5" N 103° 19' 26.1" W

Caption: Chevron Dynegy - Monument Vicinity Map

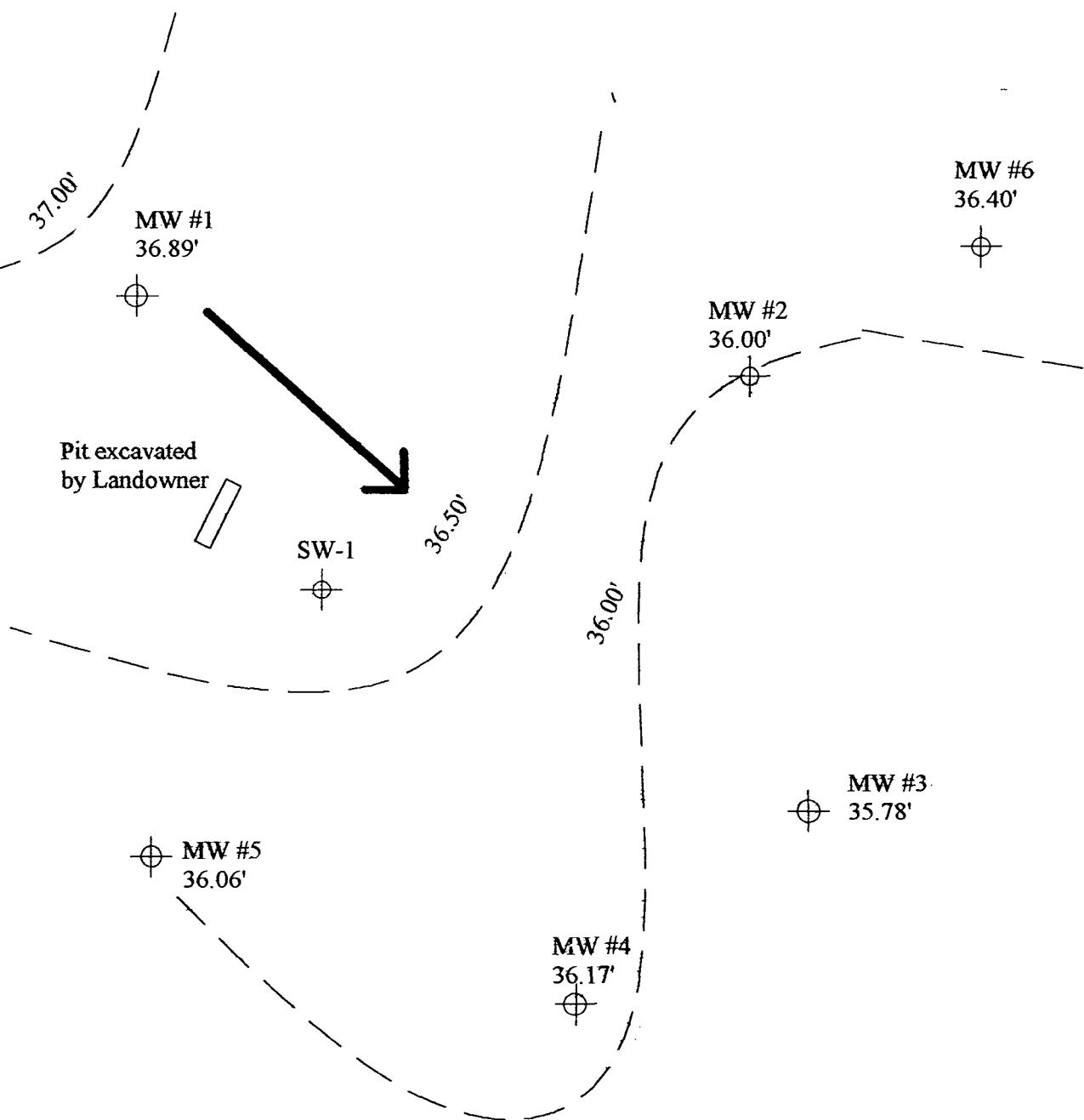
Figure 2
Potentiometric Maps



Chevron USA
Potentiometric Surface Map
Dynegy - Monument Site
Lea County, New Mexico

Scale: 1" = 50'

April 8, 1999

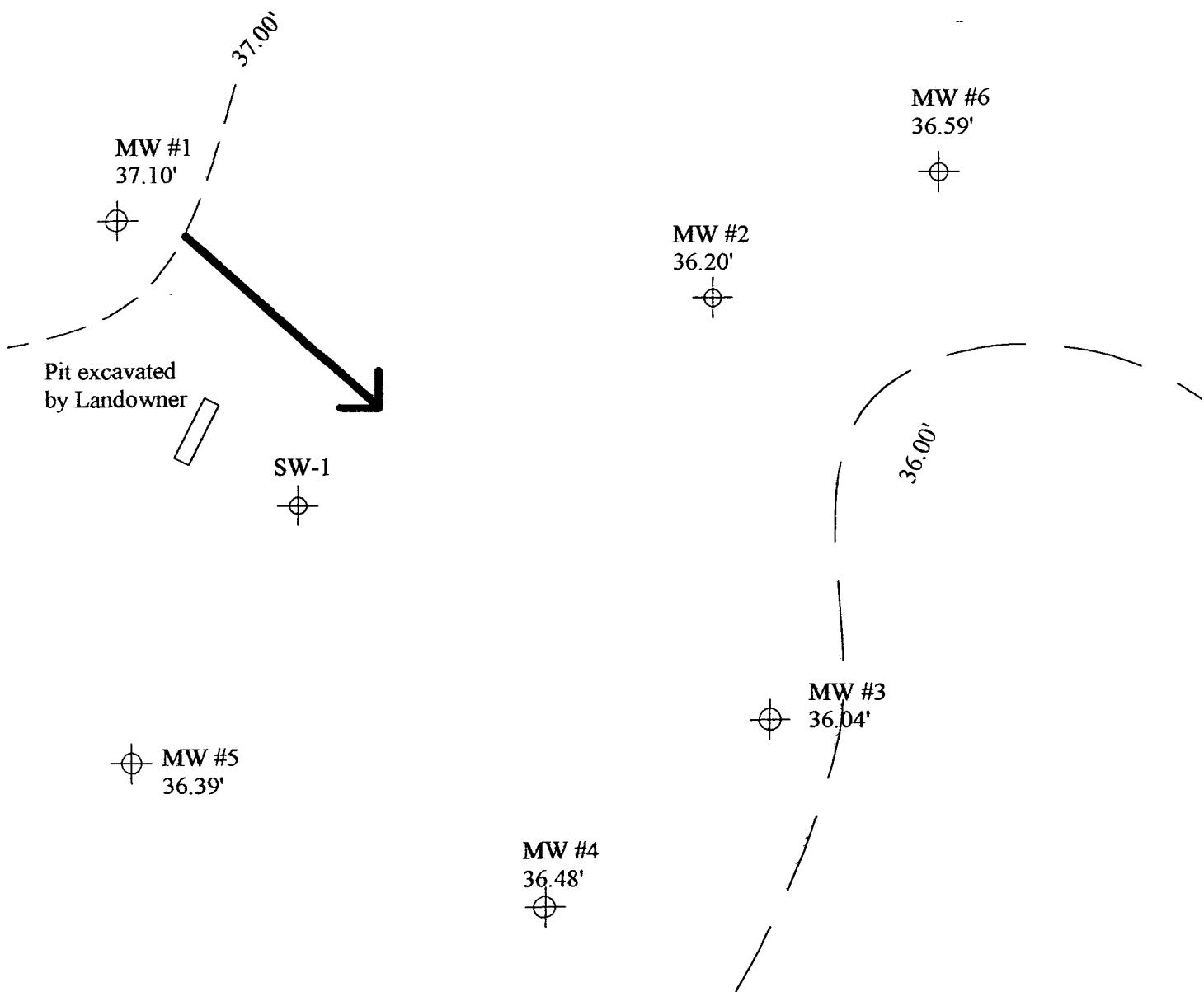
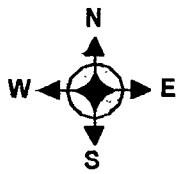


Chevron USA
Potentiometric Surface Map

Dynegy - Monument Site
Lea County, New Mexico

Scale: 1" = 50'

September 27, 1999

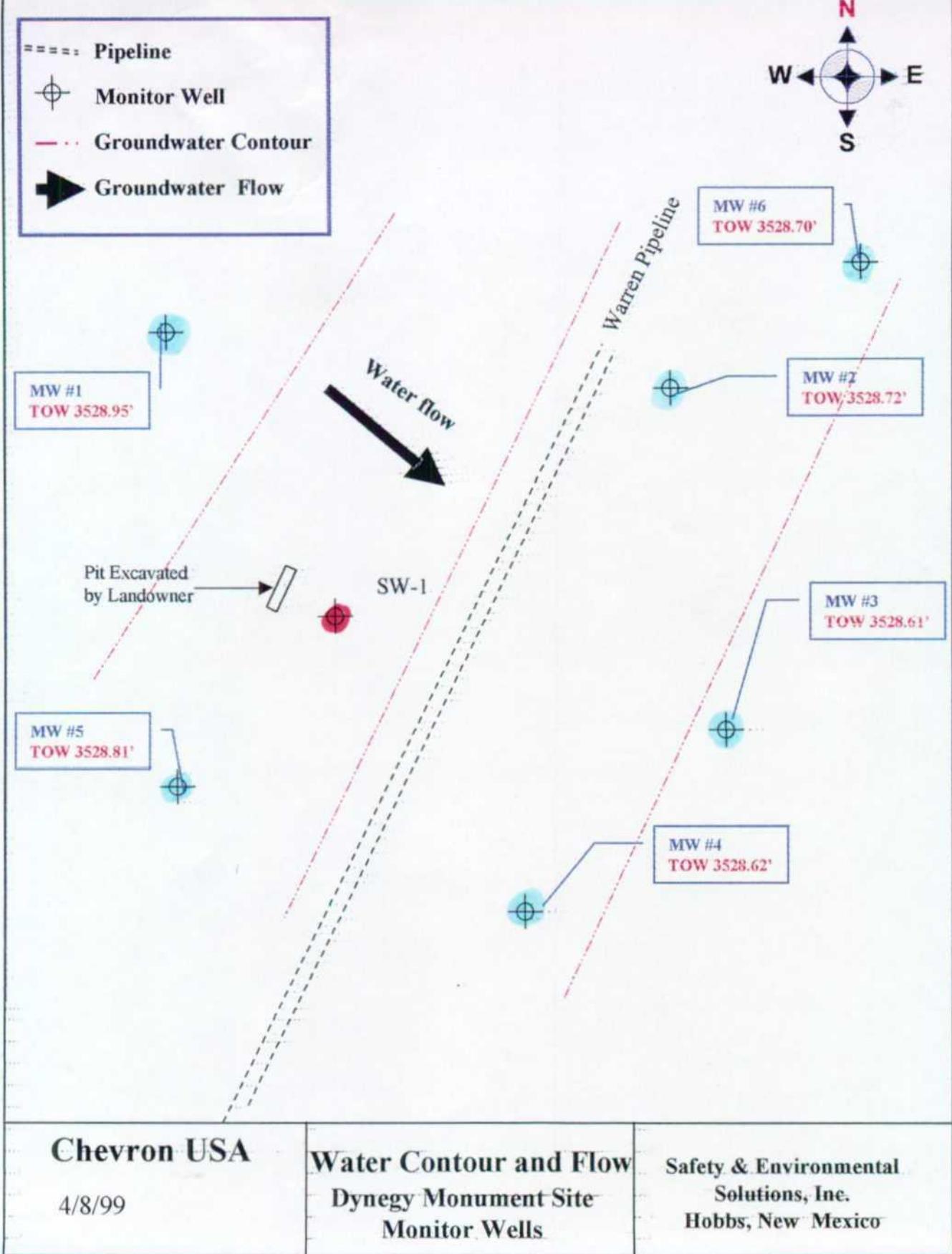


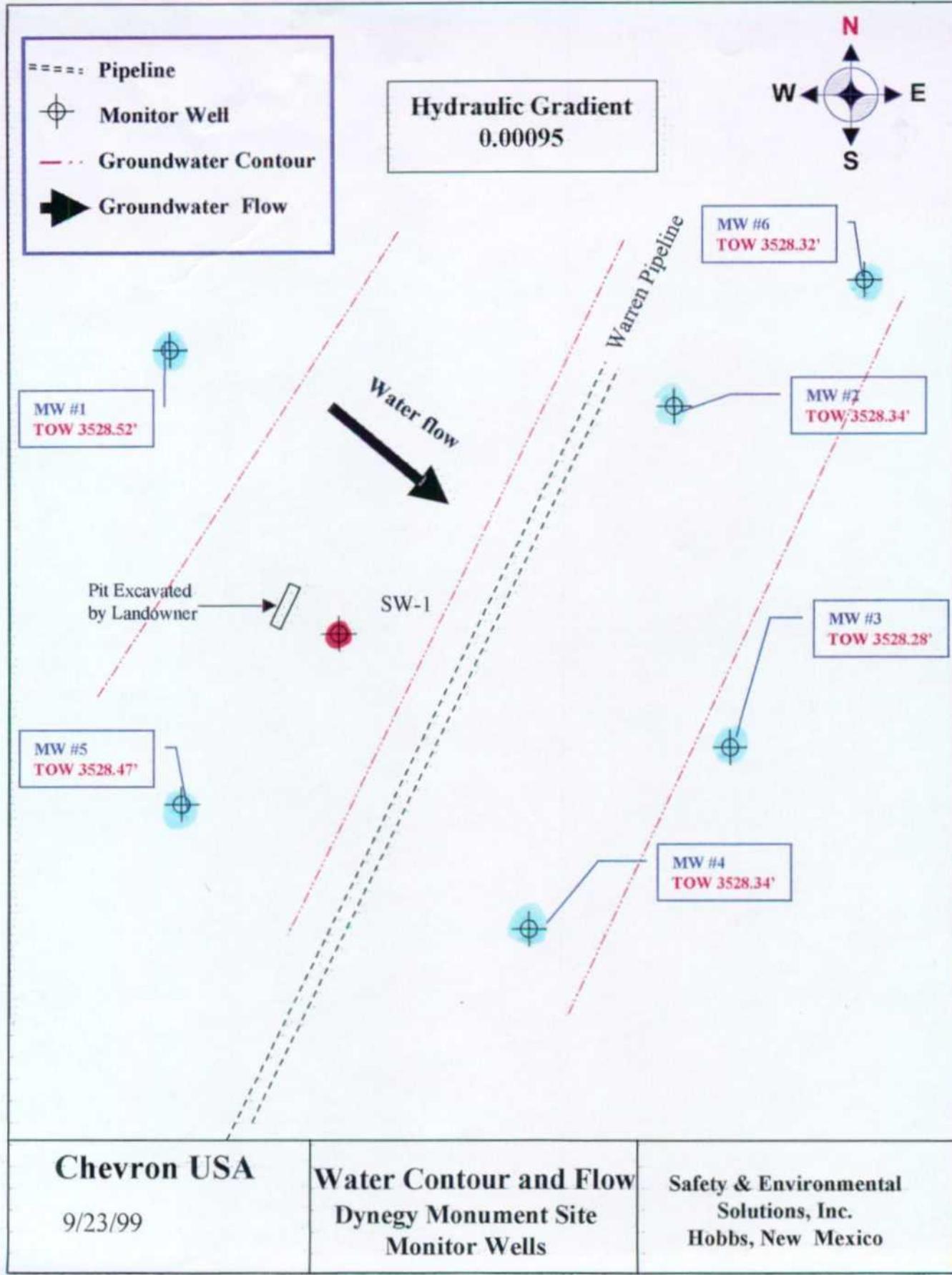
Chevron USA
Potentiometric Surface Map
Dynegy - Monument Site
Lea County, New Mexico

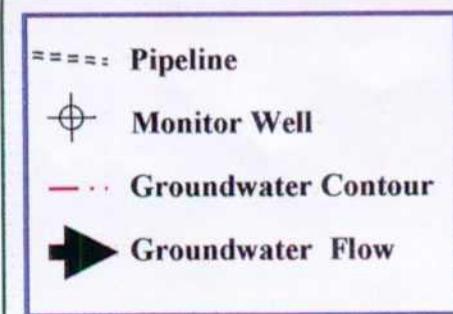
Scale: 1" = 50'

December 9, 1999

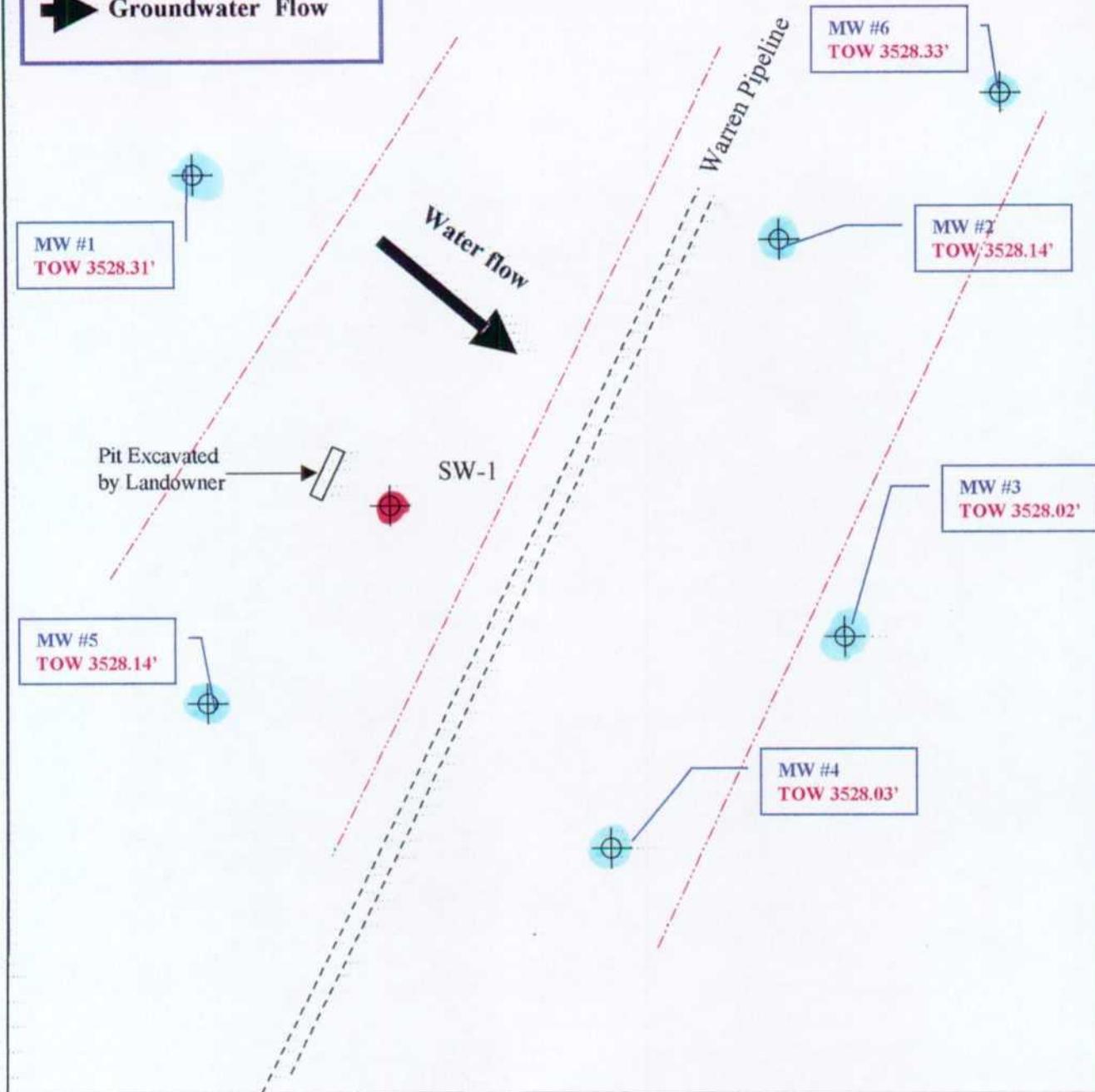
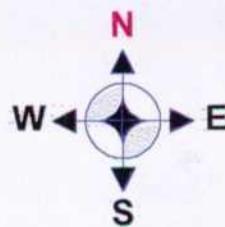
Figure 3
Water Flow Diagrams







Hydraulic Gradient
 0.000952



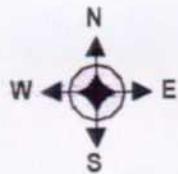
Chevron USA

12/9/99

Water Contour and Flow
 Dyngny Monument Site
 Monitor Wells

Safety & Environmental
 Solutions, Inc.
 Hobbs, New Mexico

Figure 4
Skimmer Pump Site Map



MW #1



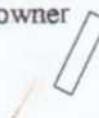
MW #6



MW #2



Pit excavated
by Landowner



SW-1



MW #5



MW #3



MW #4



Chevron USA
SW #1 Skimmer Pump Site Map

Dynegy - Monument Site
Lea County, New Mexico

Scale: 1" = 50'

November 8, 1999

Appendix A
Cumulative Top of Water Table

Chevron Dynegy - Monument Cumulative Top of Water Table

Monitor Well	Total Well Depth	Depth to Water 4/08/99	Depth to Water 9/23/99	Depth to Water 12/09/99
#1	49.34'	36.67'	36.89'	37.10'
#2	46.01'	35.82'	36.00'	36.20'
#3	47.36'	35.71'	35.78'	36.04'
#4	37.90'	36.20'	36.17'	36.48'
#5	45.41'	36.05'	36.06'	36.39'
#6	44.94'	36.21'	36.40'	36.59'

Appendix B
Cumulative Well Data

Chevron Dynegy -Monument Cumulative Well Data

Monitor Well #1

Contaminant	WQCC Standard	Initial Test 4/08/99	Test Date 9/23/99	Test Date 12/09/99
Arsenic	0.1 ppm	<0.1 ppm	n/a	n/a
Barium	1.0 ppm	<1.0 ppm	n/a	n/a
Cadmium	0.01 ppm	<0.01 ppm	n/a	n/a
Chloride	250.0 ppm	2291 ppm	1839 ppm	3130 ppm
Chromium	0.05 ppm	<0.05 ppm	n/a	n/a
Copper	1.0 ppm	<1.0 ppm	n/a	n/a
Cyanide	0.2 ppm	<0.02 ppm	n/a	n/a
Fluoride	1.6 ppm	2.04 ppm	1.76 ppm	4.01 ppm
Iron	1.0 ppm	<1.0 ppm	n/a	n/a
Lead	0.05 ppm	.261 ppm	0.34 ppm	<0.05 ppm
Manganese	0.2 ppm	<0.20 ppm	0.24 ppm	<0.20 ppm
Mercury	0.002 ppm	<0.002 ppm	n/a	n/a
Nitrate	10.0 ppm	0.22 ppm	n/a	n/a
Phenols	0.005 ppm	<0.005 ppm	n/a	n/a
Selenium	0.05 ppm	<0.05 ppm	n/a	n/a
Silver	0.05 ppm	0.067 ppm	<0.05 ppm	<0.05 ppm
Sulfate	600 ppm	1837 ppm	2628 ppm	390 ppm
Zinc	10.0 ppm	<1.0 ppm	n/a	n/a
TDS	1000.0 ppm	6910 ppm	7740 ppm	8130 ppm
pH	> 6 & <9	7.74	7.36	7.25
PAH	0.03 ppm	<0.005 ppm	n/a	n/a
PCBs	0.001 ppm	<0.001 ppm	n/a	n/a
Benzene	0.01 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Toluene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Ethyl Benzene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Total Xylenes	0.62 ppm	<0.006 ppm	<0.006 ppm	<0.006 ppm
TPH	N/A		<1.0 ppm	1.58 ppm
Sodium	N/A		1767 ppm	1558 ppm
Calcium	N/A		440 ppm	316 ppm
Magnesium	N/A		284 ppm	199 ppm
Potassium	N/A		17.01 ppm	30 ppm
Conductivity	N/A		1929 ppm	n/a
T-Alkalinity	N/A		224 ppm	224 ppm
CO ₃	N/A		0 ppm	0 ppm
HCO ₃	N/A		273 ppm	288 ppm

Monitor Well #2

Contaminant	WQCC Standard	Initial Test 4/08/99	Test Date 9/23/99	Test Date 12/09/99
Arsenic	0.1 ppm	<0.1 ppm	n/a	n/a
Barium	1.0 ppm	<1.0 ppm	n/a	n/a
Cadmium	0.01 ppm	<0.01 ppm	n/a	n/a
Chloride	250.0 ppm	1395 ppm	934 ppm	1520 ppm
Chromium	0.05 ppm	<0.05 ppm	n/a	n/a
Copper	1.0 ppm	<1.0 ppm	n/a	n/a
Cyanide	0.2 ppm	<0.02 ppm	n/a	n/a
Fluoride	1.6 ppm	2.01 ppm	1.85 ppm	4.04 ppm
Iron	1.0 ppm	<1.0 ppm	n/a	n/a
Lead	0.05 ppm	195 ppm	0.21 ppm	<0.05 ppm
Manganese	0.2 ppm	0.225 ppm	0.48 ppm	310 ppm
Mercury	0.002 ppm	<0.002 ppm	n/a	n/a
Nitrate	10.0 ppm	0.20 ppm	n/a	n/a
Phenols	0.005 ppm	<0.005 ppm	n/a	n/a
Selenium	0.05 ppm	<0.05 ppm	n/a	n/a
Silver	0.05 ppm	0.060 ppm	<0.05 ppm	<0.05 ppm
Sulfate	600 ppm	508 ppm	874 ppm	157 ppm
Zinc	10.0 ppm	<1.0 ppm	n/a	n/a
TDS	1000.0 ppm	4060 ppm	7740 ppm	3540 ppm
PH	> 6 & < 9	7.60	7.38	7.23
PAH	0.03 ppm	<0.005 ppm	n/a	n/a
PCBs	0.001 ppm	<0.001 ppm	n/a	n/a
Benzene	0.01 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Toluene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Ethyl Benzene	0.75 ppm	<0.002 ppm	<0.002 ppm	0.004 ppm
Total Xylenes	0.62 ppm	<0.006 ppm	<0.006 ppm	<0.006 ppm
TPH	N/A		10.3 ppm	5.17 ppm
Sodium	N/A		934 ppm	927 ppm
Calcium	N/A		200 ppm	154 ppm
Magnesium	N/A		160 ppm	92 ppm
Potassium	N/A		10.99 ppm	20 ppm
Conductivity	N/A		1881 ppm	6170 ppm
T-Alkalinity	N/A		508 ppm	n/a
CO ₃	N/A		0 ppm	0 ppm
HCO ₃	N/A		620 ppm	610 ppm

Monitor Well #3

Contaminant	WQCC Standard	Initial Test 4/08/99	Test Date 9/23/99	Test Date 12/09/99
Arsenic	0.1 ppm	<0.1 ppm	n/a	n/a
Barium	1.0 ppm	<1.0 ppm	n/a	n/a
Cadmium	0.01 ppm	<0.01 ppm	n/a	n/a
Chloride	250.0 ppm	948 ppm	1095 ppm	1414 ppm
Chromium	0.05 ppm	<0.05 ppm	n/a	n/a
Copper	1.0 ppm	<1.0 ppm	n/a	n/a
Cyanide	0.2 ppm	<0.02 ppm	n/a	n/a
Fluoride	1.6 ppm	2.12 ppm	1.74 ppm	4.03 ppm
Iron	1.0 ppm	<1.0 ppm	n/a	n/a
Lead	0.05 ppm	.242 ppm	0.18 ppm	<0.05 ppm
Manganese	0.2 ppm	<0.20 ppm	0.24 ppm	<0.20 ppm
Mercury	0.002 ppm	<0.002 ppm	n/a	n/a
Nitrate	10.0 ppm	0.20 ppm	n/a	n/a
Phenols	0.005 ppm	<0.005 ppm	n/a	n/a
Selenium	0.05 ppm	<0.05 ppm	n/a	n/a
Silver	0.05 ppm	0.053 ppm	<0.05 ppm	<0.05 ppm
Sulfate	600 ppm	.505 ppm	971 ppm	186 ppm
Zinc	10.0 ppm	<1.0 ppm	n/a	n/a
TDS	1000.0 ppm	3700 ppm	3930 ppm	3610 ppm
PH	> 6 & <9	7.32	7.23	7.22
PAH	0.03 ppm	<0.005 ppm	n/a	n/a
PCBs	0.001 ppm	<0.001 ppm	n/a	n/a
Benzene	0.01 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Toluene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Ethyl Benzene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Total Xylenes	0.62 ppm	<0.006 ppm	<0.006 ppm	<0.006 ppm
TPH	N/A		2.52 ppm	<1.0 ppm
Sodium	N/A		827 ppm	881 ppm
Calcium	N/A		96 ppm	95 ppm
Magnesium	N/A		272 ppm	149 ppm
Potassium	N/A		11.85 ppm	24 ppm
Conductivity	N/A		1850 ppm	1850 ppm
T-Alkalinity	N/A		620 ppm	n/a
CO ₃	N/A		0 ppm	0 ppm
HCO ₃	N/A		756 ppm	747 ppm

Monitor Well #4

Contaminant	WQCC Standard	Initial Test 4/08/99	Test Date 9/23/99	Test Date 12/09/99
Arsenic	0.1 ppm	<0.1 ppm	n/a	n/a
Barium	1.0 ppm	<1.0 ppm	n/a	n/a
Cadmium	0.01 ppm	<0.01 ppm	n/a	n/a
Chloride	250.0 ppm	1893 ppm	1612 ppm	2220 ppm
Chromium	0.05 ppm	<0.05 ppm	n/a	n/a
Copper	1.0 ppm	<1.0 ppm	n/a	n/a
Cyanide	0.2 ppm	<0.02 ppm	n/a	n/a
Fluoride	1.6 ppm	2.12 ppm	1.68 ppm	4.04 ppm
Iron	1.0 ppm	<1.0 ppm	n/a	n/a
Lead	0.05 ppm	.239 ppm	0.20 ppm	<0.05 ppm
Manganese	0.2 ppm	0.475 ppm	0.71 ppm	.417 ppm
Mercury	0.002 ppm	<0.002 ppm	n/a	n/a
Nitrate	10.0 ppm	0.22 ppm	n/a	n/a
Phenols	0.005 ppm	<0.005 ppm	n/a	n/a
Selenium	0.05 ppm	<0.05 ppm	n/a	n/a
Silver	0.05 ppm	0.059 ppm	<0.05 ppm	<0.05 ppm
Sulfate	600 ppm	651 ppm	1088 ppm	187 ppm
Zinc	10.0 ppm	<1.0 ppm	n/a	n/a
TDS	1000.0 ppm	6200 ppm	5190 ppm	4770 ppm
PH	>6 & <9	7.51	7.30	7.30
PAH	0.03 ppm	<0.005 ppm	n/a	n/a
PCBs	0.001 ppm	<0.001 ppm	n/a	n/a
Benzene	0.01 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Toluene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Ethyl Benzene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Total Xylenes	0.62 ppm	<0.006 ppm	<0.006 ppm	<0.006 ppm
TPH	N/A		2.76 ppm	<1.0 ppm
Sodium	N/A		1167 ppm	1393 ppm
Calcium	N/A		176 ppm	136 ppm
Magnesium	N/A		272 ppm	159 ppm
Potassium	N/A		20.83 ppm	32 ppm
Conductivity	N/A		1812 ppm	1812 ppm
T-Alkalinity	N/A		720 ppm	n/a
CO ₃	N/A		0 ppm	0 ppm
HCO ₃	N/A		878 ppm	891 ppm

Monitor Well #5

Contaminant	WQCC Standard	Initial Test 4/08/99	Test Date 9/23/99	Test Date 12/09/99
Arsenic	0.1 ppm	<0.1 ppm	n/a	n/a
Barium	1.0 ppm	<1.0 ppm	n/a	n/a
Cadmium	0.01 ppm	<0.01 ppm	n/a	n/a
Chloride	250.0 ppm	2092 ppm	2139 ppm	2320 ppm
Chromium	0.05 ppm	<0.05 ppm	n/a	n/a
Copper	1.0 ppm	<1.0 ppm	n/a	n/a
Cyanide	0.2 ppm	<0.02 ppm	n/a	n/a
Fluoride	1.6 ppm	2.32 ppm	1.88 ppm	4.04 ppm
Iron	1.0 ppm	<1.0 ppm	n/a	n/a
Lead	0.05 ppm	.264 ppm	0.27 ppm	<0.05 ppm
Manganese	0.2 ppm	0.476 ppm	0.57 ppm	.404 ppm
Mercury	0.002 ppm	<0.002 ppm	n/a	n/a
Nitrate	10.0 ppm	1.92 ppm	n/a	n/a
Phenols	0.005 ppm	<0.005 ppm	n/a	n/a
Selenium	0.05 ppm	<0.05 ppm	n/a	n/a
Silver	0.05 ppm	0.061 ppm	<0.05 ppm	<0.05 ppm
Sulfate	600 ppm	2278 ppm	2259 ppm	387 ppm
Zinc	10.0 ppm	<1.0 ppm	n/a	n/a
TDS	1000.0 ppm	7260 ppm	8230 ppm	7000 ppm
PH	> 6 & <9	7.23	7.10	7.44
PAH	0.03 ppm	<0.005 ppm	n/a	n/a
PCBs	0.001 ppm	<0.001 ppm	n/a	n/a
Benzene	0.01 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Toluene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Ethyl Benzene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Total Xylenes	0.62 ppm	<0.006 ppm	<0.006 ppm	<0.006 ppm
TPH	N/A		2.90 ppm	<1.0 ppm
Sodium	N/A		1600 ppm	1285 ppm
Calcium	N/A		336 ppm	206 ppm
Magnesium	N/A		360 ppm	210 ppm
Potassium	N/A		44.35 ppm	40 ppm
Conductivity	N/A		1760 ppm	10650 ppm
T-Alkalinity	N/A		490 ppm	n/a
CO ₃	N/A		0 ppm	0 ppm
HCO ₃	N/A		598 ppm	671 ppm

Monitor Well #6

Contaminant	WQCC Standard	Initial Test 4/08/99	Test Date 9/23/99	Test Date 12/09/99
Arsenic	0.1 ppm	<0.1 ppm	n/a	n/a
Barium	1.0 ppm	<1.0 ppm	n/a	n/a
Cadmium	0.01 ppm	<0.01 ppm	n/a	n/a
Chloride	250.0 ppm	785 ppm	933 ppm	1310 ppm
Chromium	0.05 ppm	<0.05 ppm	n/a	n/a
Copper	1.0 ppm	<1.0 ppm	n/a	n/a
Cyanide	0.2 ppm	<0.02 ppm	n/a	n/a
Fluoride	1.6 ppm	2.30 ppm	1.94 ppm	4.04 ppm
Iron	1.0 ppm	<1.0 ppm	n/a	n/a
Lead	0.05 ppm	.208 ppm	0.16 ppm	<0.05 ppm
Manganese	0.2 ppm	<0.20 ppm	<0.20 ppm	<0.20 ppm
Mercury	0.002 ppm	<0.002 ppm	n/a	n/a
Nitrate	10.0 ppm	0.13 ppm	n/a	n/a
Phenols	0.005 ppm	<0.005 ppm	n/a	n/a
Selenium	0.05 ppm	<0.05 ppm	n/a	n/a
Silver	0.05 ppm	0.056ppm	<0.05 ppm	<0.05 ppm
Sulfate	600 ppm	399 ppm	501 ppm	76 ppm
Zinc	10.0 ppm	<1.0 ppm	n/a	n/a
TDS	1000.0 ppm	2800 ppm	2640 ppm	2090 ppm
pH	> 6 & < 9	7.61	7.32	7.33
PAH	0.03 ppm	<0.005 ppm	n/a	n/a
PCBs	0.001 ppm	<0.001 ppm	n/a	n/a
Benzene	0.01 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Toluene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Ethyl Benzene	0.75 ppm	<0.002 ppm	<0.002 ppm	<0.002 ppm
Total Xylenes	0.62 ppm	<0.006 ppm	<0.006 ppm	<0.006 ppm
TPH	N/A		2.66 ppm	<1.0 ppm
Sodium	N/A		578 ppm	728 ppm
Calcium	N/A		144 ppm	115 ppm
Magnesium	N/A		122 ppm	84 ppm
Potassium	N/A		6.49 ppm	22 ppm
Conductivity	N/A		1796 ppm	4770 ppm
T-Alkalinity	N/A		290 ppm	n/a
CO ₃	N/A		0 ppm	0 ppm
HCO ₃	N/A		354 ppm	390 ppm

Appendix C Skimmer Pump Cumulative Data

Monument, NM Site

*Skimmer Pump
Recovery Table*

03/30/2000

<i>Date</i>	<i>Time</i>	<i>TOO</i> <i>(Feet)</i>	<i>TOW</i> <i>(Feet)</i>	<i>Oil Column</i> <i>(Feet)</i>	<i>Fluid</i> <i>Recovered</i>	<i>YTD Oil</i> <i>Recovered</i>	<i>YTD Water</i> <i>Recovered</i>
8/25/99	8:23am	37.68	46.97	9.29			
8/25/99	4:30pm	38.64	40.50	1.86			
8/26/99	8:00am	36.50	42.50	6.00			
8/26/99	4:00pm	39.03	40.43	1.40			
8/27/99	8:00am	38.56	40.16	1.60			
8/27/99	4:00pm	38.87	39.21	0.34			
8/28/99	8:00am	38.67	39.16	0.49			
8/28/99	4:00pm	0.00	38.95	38.95	35gal.	15gal.	20gal.
8/30/99	8:00am	38.69	38.99	0.30			
8/30/99	4:00pm	38.98	38.99	0.01			
9/1/99	8:00am	38.71	38.99	0.28			
9/1/99	4:00pm	38.98	38.98	0.00			
9/3/99	11:00am	38.73	39.03	0.30			
9/3/99	4:00pm	38.92	39.00	0.08	20gal.		
9/7/99	8:00am	38.68	39.33	0.65		20gal.	35gal.
9/7/99	4:00pm	38.95	38.95	0.00	5gal.		
9/9/99	8:00am	38.78	38.98	0.20			
9/9/99	4:00pm	39.15	39.20	0.05	5gal.		
9/13/99	8:00am	38.81	39.26	0.45			
9/13/99	4:00pm	39.10	39.25	0.15	8gal.		
9/16/99	8:00am	38.78	39.31	0.53			
9/16/99	4:00pm	39.05	39.17	0.12	10gal.		
9/20/99	8:00am	38.79	39.27	0.48			
9/20/99	4:00pm	39.15	39.20	0.05	10gal.		
9/23/99	8:00am	38.69	39.28	0.59			
9/23/99	4:00pm	39.20	39.20	0.00	8gal.		
9/27/99	8:00am	38.79	39.37	0.58			
9/27/99	4:00pm	39.12	39.35	0.23	5gal.		
9/30/99	8:00am	38.71	39.26	0.55			
9/30/99	4:00pm	38.99	39.13	0.14	5gal.		
10/4/99	8:00am	38.89	39.59	0.70			
10/4/99	4:00pm	39.11	39.11	0.00	8gal.		
10/7/99	8:30am	38.74	39.39	0.65			
10/7/99	4:30pm	39.06	39.61	0.55	7gal.		
10/11/99	8:00am	38.82	39.67	0.85			
10/11/99	4:00pm	39.01	39.41	0.40	6gal.		
10/14/99	8:00am	38.81	39.53	0.72			
10/14/99	4:00pm	39.12	39.42	0.30	5gal.		
10/27/99	8:00am	38.89	39.41	0.52			
10/27/99	4:00pm	39.18	39.25	0.07	8gal.		
10/29/99	8:00am	38.91	39.13	0.22			
10/29/99	4:00pm	39.18	39.28	0.10	10gal.		

Monument, NM Site

**Skimmer Pump
Recovery Table**

03/30/2000

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered	YTD Oil Recovered	YTD Water Recovered
11/1/99	8:00am	38.93	39.28	0.35		35gal.	120gal.
11/1/99	4:00pm	39.01	39.25	0.24	5gal.		
11/4/99	8:00am	38.95	39.18	0.23			
11/4/99	4:00pm	39.06	39.06	0.00	4gal.		
11/9/99	8:00am	38.94	39.32	0.38			
11/9/99	4:00pm	39.06	39.06	0.00	1gal..		
11/16/99	8:00am	38.91	39.28	0.37			
11/16/99	4:00pm	39.04	39.04	0.00	3gal.		
11/23/99	8:00am	38.96	39.17	0.21			
11/23/99	4:00pm	39.06	39.06	0.00	3gal.		
11/30/99	8:00am	38.91	40.31	1.40			
11/30/99	4:00pm	39.40	39.40	0.00	5gal.		
12/6/99	9:00am	39.01	39.44	0.43			
12/6/99	5:45pm	39.03	39.03	0.00	2gal.		
12/14/99	10:30am	39.12	39.69	0.57			
12/14/99	5:00pm	39.19	39.19	0.00	1gal.	42.5gal.	136.5gal.
12/27/99	8:30am	39.01	39.86	0.85			
12/27/99	5:00pm	39.23	39.23	0.00	3gal.		

Appendix D Analytical Results



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON ST., SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 04/08/99

Reporting Date: 04/10/99

Project Number: NOT GIVEN

Project Name: CHEVRON / DYNEGY

Project Location: MONUMENT, NM

Lab Number: H4097-6

Sample ID: MW-6

Analysis Date: 04/09/99

Sampling Date: 04/08/99

Sample Type: GROUNDWATER

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

VOLATILES (mg/L)	Sample Result	Method	True Value		
		Blank	QC	%Recov.	QC

Vinyl Chloride	<0.002	<0.002	0.102	102	0.100
1,1-Dichloroethylene	<0.002	<0.002	0.104	104	0.100
Methylene Chloride*	0.008	0.014	0.106	106	0.100
Chloroform	<0.002	<0.002	0.106	106	0.100
1,1-Dichloroethane	<0.002	<0.002	0.093	93	0.100
1,2-Dichloroethane	<0.002	<0.002	0.099	99	0.100
Benzene	<0.002	<0.002	0.111	111	0.100
Carbon Tetrachloride	<0.002	<0.002	0.094	94	0.100
Toluene	0.003	<0.002	0.099	99	0.100
Trichloroethylene	<0.002	<0.002	0.097	97	0.100
Tetrachloroethylene	<0.002	<0.002	0.090	90	0.100
Ethylbenzene	<0.002	<0.002	0.092	92	0.100
m,p-Xylene	<0.004	<0.004	0.186	93	0.200
o-Xylene	<0.002	<0.002	0.093	93	0.100
1,1,1-Trichloroethane	<0.002	<0.002	0.099	99	0.100
1,1,2-Trichloroethane	<0.002	<0.002	0.102	102	0.100
1,1,2,2-Tetrachloroethane	<0.002	<0.002	0.103	103	0.100
Ethylene Dibromide	<0.002	<0.002	0.103	103	0.100

% RECOVERY

Dibromofluoromethane	82
Toluene-d8	89
Bromofluorobenzene	90

METHODS: EPA SW 846-8260

*Detected at comparable levels in sample and method blank.

Burgess J.A. Cooke
Burgess J.A. Cooke, Ph. D.

Date

4/10/99

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603. 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name:	SRSI			Page _____ of _____
Project Manager:	PO#:			
Address: 703 E. CLINTON, #103	Company: SAME			
City: HOBBS	Attn:			
Phone #: (505) 397-0510	Address:			
Fax #: (505) 393-4388	City:			
Project #: Project Owner: <i>Chesapeake Energy</i>	State: NM Zip: 88240			
Project Name: <i>Chesapeake Synergy</i>	Phone #:			
Project Location: <i>Monument</i>	Fax #:			
FOR LAB USE ONLY		MATRIX	PRES.	SAMPLING
LAB I.D.	Sample I.D.	SLUDGE	ACID:	OTHER:
		OLE	ICE / COOL	ACID:
		SOIL	GROUNDWATER	OTHER:
		WASTEWATER	GARBAGE OR GOMA	GARBAGE OR GOMA
		CONTAINERS		
HHS02-1	MW #1	X	X	X
-2	MW #2	X	X	X
-3	MW #3	X	X	X
-4	MW #4	X	X	X
-5	MW #5	X	X	X
-6	MW #6	X	X	X
<i>Actions & Findings</i>				
<i>06-27</i>				
<i>TPH 418.1</i>				
<i>BTE-X</i>				
<i>Allen Gaines El Dorado S. L. V. P.</i>				
<i>Alan Gaines El Dorado S. L. V. P.</i>				
<i>Actions & Findings</i>				
<i>06-27</i>				
<i>TPH 418.1</i>				
<i>BTE-X</i>				

PLAQUE NOTE: Utility and Sampling. Cardinal's liability and client's exclusive remedy for any claim arising out of or based on or related to the amount paid by the client for the analysis, all claims, including those for negligence and any other cause whatsoever shall be limited to the amount paid by Cardinal within 90 days after completion of the procedure sampling. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation business interruption, loss of use, or loss of profits incurred by client, its employees, agents or contractors, regardless of whether such claim is based upon any of the above stipulations or otherwise.

Sampler RetainQualified: _____ Date: _____ Received By: _____

Time: _____ Received By: Lab Staff _____ Received By: _____

RetainQualified By: *Chesapeake Energy* Time: *10:49 AM* Received By: *Benjie McCloud* Time: *10:49 AM*

Delivered By: (Circle One) Sample Condition: (Initials)

Sample • UPS • Bus • Other: Yes No Yes No Yes No

TERMS AND CONDITIONS: This work will be charged on an hourly basis with 30 days past due at the rate of 2% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Phone Result: Yes No **Additional Fax #:** _____

Fax Result: Yes No **REMARKS:** _____

† Cardinal cannot accept verbal changes. Please fax written changes to 915-373-7020.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON ST., SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 04/08/99
Reporting Date: 04/13/99
Project Number: NOT GIVEN
Project Name: CHEVRON / DYNEGY
Project Location: MONUMENT, NM
Sample ID: MW-6
Lab Number: H4097-6

Analysis Date: 04/13/99
Sampling Date: 04/08/99
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

AROCLORS (PCB's) ppm	Sample Result	Method Blank	True Value		
			QC	QC	%IA
H4097-6					
PCB 1016	<0.001	<0.001	NR	NR	NR
PCB 1221	<0.001	<0.001	NR	NR	NR
PCB 1232	<0.001	<0.001	NR	NR	NR
PCB 1242	<0.001	<0.001	0.054	0.050	108
PCB 1248	<0.001	<0.001	NR	NR	NR
PCB 1254	<0.001	<0.001	0.054	0.050	108
PCB 1260	<0.001	<0.001	0.054	0.050	108

% Recovery

Nitrobenzene-d5	63
2-Fluorobiphenyl	94
Terphenyl-d14	103

METHOD: SW-846 3550, 8270

Rufus J. Cade
Chemist

4/13/99
Date



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN
703 E. CLINTON ST., SUITE 103
HOBBS, NM 88240

Receiving Date: 04/08/99

FAX TO:

Analysis Date: 04/12/99

Reporting Date: 04/13/99

Sampling Date: 04/08/99

Project Number: NOT GIVEN

Sample Type: GROUNDWATER

Project Name: CHEVRON / DYNEGY

Sample Condition: COOL & INTACT

Project Location: MONUMENT, NM

Sample Received By: GP

Lab Number: H4097-6

Analyzed By: BC

Sample ID: MW-6

	SEMIVOLATILES - PHENOLS (mg/L)	Sample Result H4097-6	Method Blank	True Value		
				QC	%Recov.	QC
1	Phenol	<0.002	<0.002	0.036	72	0.050
2	2-Chlorophenol	<0.002	<0.002	0.032	64	0.050
3	2-Methylphenol	<0.002	<0.002	0.034	68	0.050
4	4-Methylphenol	<0.002	<0.002	0.034	68	0.050
5	2-Nitrophenol	<0.002	<0.002	0.035	70	0.050
6	2,4-Dimethylphenol	<0.002	<0.002	0.039	78	0.050
7	Other Dimethylphenols	<0.002	<0.002	NR	NR	NR
8	2,4-Dichlorophenol	<0.002	<0.002	0.039	78	0.050
9	2,6-Dichlorophenol	<0.002	<0.002	0.038	76	0.050
10	4-Chloro-3-methylphenol	<0.002	<0.002	0.038	76	0.050
11	2,4,6-Trichlorophenol	<0.002	<0.002	0.039	78	0.050
12	2,4,5-Trichlorophenol	<0.002	<0.002	0.039	78	0.050
13	2,4-Dinitrophenol	<0.002	<0.002	0.042	84	0.050
14	4-Nitrophenol	<0.002	<0.002	0.040	80	0.050
15	2,3,4,6-Tetrachlorophenol	<0.002	<0.002	0.039	78	0.050
16	4,6-Dinitro-2-methylphenol	<0.002	<0.002	0.041	82	0.050
17	Pentachlorophenol	<0.002	<0.002	0.043	86	0.050
Total Phenols		<0.005				

% Recovery

18	2-Fluorophenol	31
19	Phenol-d5	28
20	2,4,6-Tribromophenol	47

METHODS: EPA 625/SW-846 8270

Burgess J.A. Cooke
Burgess J.A. Cooke, Ph. D.

4/13/99
Date



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN
703 E. CLINTON ST., SUITE 103
HOBBS, NM 88240

FAX TO:

Receiving Date: 04/08/99

Reporting Date: 04/13/99

Project Number: NOT GIVEN

Project Name: CHEVRON / DYNEGY

Project Location: MONUMENT, NM

Lab Number: H4097-6

Sample ID: MW-6

Analysis Date: 04/12/99

Sampling Date: 04/08/99

Sample Type: GROUNDWATER

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

POLYNUCLEAR AROMATIC

HYDROCARBONS - 625 (mg/L)

	Sample Result	Method	True Value		
	H4097-6	Blank	QC	% Recov.	QC

1 Naphthalene	0.001	0.001	0.041	82	0.050
2 2-Methylnaphthalene	<0.002	<0.002	0.041	82	0.050
3 1-Methylnaphthalene	<0.002	<0.002	NR	NR	NR
4 Acenaphthylene	<0.001	<0.001	0.040	80	0.050
5 Acenaphthene	<0.001	<0.001	0.040	80	0.050
6 Fluorene	<0.001	<0.001	0.040	80	0.050
7 Phenanthrene	<0.001	<0.001	0.045	90	0.050
8 Anthracene	<0.001	<0.001	0.042	84	0.050
9 Fluoranthene	<0.001	<0.001	0.043	86	0.050
10 Pyrene	<0.001	<0.001	0.043	86	0.050
11 Benzo(a)anthracene	<0.001	<0.001	0.044	88	0.050
12 Chrysene	<0.001	<0.001	0.041	82	0.050
13 Benzo(b)fluoranthene	<0.001	<0.001	0.030	60	0.050
14 Benzo(k)fluoranthene	<0.001	<0.001	0.030	60	0.050
15 Benzo(a)pyrene	<0.0007	<0.0007	0.040	80	0.050
16 Indeno(1,2,3-cd)pyrene	<0.001	<0.001	0.041	82	0.050
17 Dibenz(a,h,)anthracene	<0.001	<0.001	0.039	78	0.050
18 Benzo(g,h,i)perylene	<0.001	<0.001	0.040	80	0.050

% Recovery

19 Nitrobenzene-d5	63
20 2-Fluorobiphenyl	94
21 Terphenyl-d14	103

METHODS: EPA 625

Burgess J. A. Cooke, Ph. D.

Date

4/13/99



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON ST., SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 04/08/99
Reporting Date: 04/13/99
Project Number: NOT GIVEN
Project Name: CHEVRON / DYNEGY
Project Location: MONUMENT, NM
Sample ID: MW-5
Lab Number: H4097-5

Analysis Date: 04/13/99
Sampling Date: 04/08/99
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

AROCLORS (PCB's) ppm	Sample Result	Method Blank	True Value		
			QC	QC	%IA
H4097-5					
PCB 1016	<0.001	<0.001	NR	NR	NR
PCB 1221	<0.001	<0.001	NR	NR	NR
PCB 1232	<0.001	<0.001	NR	NR	NR
PCB 1242	<0.001	<0.001	0.054	0.050	108
PCB 1248	<0.001	<0.001	NR	NR	NR
PCB 1254	<0.001	<0.001	0.054	0.050	108
PCB 1260	<0.001	<0.001	0.054	0.050	108

% Recovery

Nitrobenzene-d5	70
2-Fluorobiphenyl	101
Terphenyl-d14	106

METHOD: SW-846 3550, 8270

Brent J. Cooke
Chemist

4/13/99
Date



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN
701 E. CLINTON ST., SUITE 103
HOBBS, NM 88240

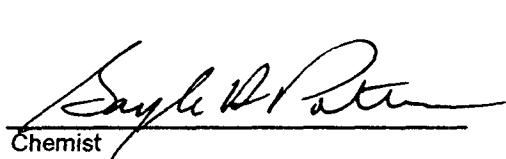
Receiving Date: 04/08/99
Reporting Date: 04/13/99
Project Number: NOT GIVEN
Project Name: CHEVRON / DYNEGY
Project Location: MONUMENT, NM

FAX TO:

Sampling Date: 04/08/99
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ mhos/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		04/12/99	04/12/99	04/12/99	04/09/99	04/09/99	04/12/99
H4097-1	MW-1	1487	352	304	13.22	10800	240
H4097-2	MW-2	939	102	156	8.92	5690	456
H4097-3	MW-3	559	126	215	11.5	5970	568
H4097-4	MW-4	1005	192	319	18.12	8800	656
H4097-5	MW-5	1590	272	401	18.86	11380	492
H4097-6	MW-6	446	133	122	6.49	4100	292
Quality Control		NR	48	51	4.96	1402	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	96	102	99	99	NR
Relative Percent Difference		NR	0	2.6	-	0.1	NR
METHODS:		SM3500-Ca-D	3500-Mg E		8049	120.1	310.1

	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	04/12/99	04/12/99	04/12/99	04/12/99	04/09/99	04/12/99
H4097-1	MW-1	2291	1837	0	293	7.44
H4097-2	MW-2	1395	508	0	556	7.60
H4097-3	MW-3	948	505	0	693	7.32
H4097-4	MW-4	1893	651	0	800	7.51
H4097-5	MW-5	2092	2278	0	600	7.23
H4097-6	MW-6	785	399	0	356	7.61
Quality Control		1255	47.69	112	221	7.02
True Value QC		1319	50.00	124	259	7.00
% Accuracy		95	95	90	85	100
Relative Percent Difference		1.0	2.5	-	-	5.7
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1


Chemist

04/14/99
Date



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON ST, SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 04/08/99
Reporting Date: 04/13/99
Project Number: NOT GIVEN
Project Name: CHEVRON / DYNEGY
Project Location: MONUMENT, NM

Sampling Date: 04/08/99
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER SAMPLE ID

F⁻

NO₃⁻

CN

ANALYSIS DATE	04/09/99	04/09/99	04/13/99
H4097-1 MW-1	2.04	0.22	<0.02
H4097-2 MW-2	2.01	<0.2	<0.02
H4097-3 MW-3	2.12	<0.2	<0.02
H4097-4 MW-4	2.12	<0.2	<0.02
H4097-5 MW-5	2.32	1.92	<0.02
H4097-6 MW-6	2.30	0.13	<0.02
Quality Control	0.95	10.01	0.190
True Value QC	1.00	10.00	0.200
% Accuracy	95	100	95
Relative Percent Difference	3.2	8.1	5.3
METHODS: EPA 600/4-79-020	340.1	353.3	335.2

Chemist

04/14/99
Date

H4097-2.XLS

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PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN
703 W. CLINTON ST. SUITE 103
HOBBS, NM 88240

FAX TO:

Sampling Date: 04/08/99

Sample Type: GROUNDWATER

Sample Condition: COOL AND INTACT

Sample Received By: GP

Analyzed By: AH/GP

Receiving Date: 04/08/99
Reporting Date: 04/14/99
Project Number: NOT GIVEN
Project Name: CHEVRON / DYNEGY
Project Location: MONUMENT, NM

TOTAL METALS

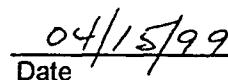
LAB NUMBER	SAMPLE ID	Cu (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)
------------	-----------	-------------	-------------	-------------	-------------

ANALYSIS DATE:		04/14/99	04/14/99	04/14/99	04/14/99
H4097-1	MW-1	<1	<1	<0.2	<1
H4097-2	MW-2	<1	<1	0.225	<1
H4097-3	MW-3	<1	<1	<0.2	<1
H4097-4	MW-4	<1	<1	0.475	<1
H4097-5	MW-5	<1	<1	0.476	<1
H4097-6	MW-6	<1	<1	<0.2	<1
Quality Control		1.937	1.983	0.995	0.520
True Value QC		2.000	2.000	1.000	0.500
% Recovery		97	99	100	104
Relative Percent Difference		0.56	1.88	1.99	1.22

METHODS: EPA 600/04-79-020	220.1	236.1	243.1	289.1
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Chemist



Date

H4097M2.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN
703 W. CLINTON ST. SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 04/08/99
Reporting Date: 04/15/99
Project Number: NOT GIVEN
Project Name: CHEVRON / DYNEGY
Project Location: MONUMENT, NM

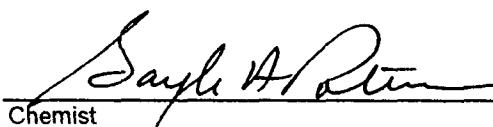
Sampling Date: 04/08/99
Sample Type: GROUNDWATER
Sample Condition: COOL AND INTACT
Sample Received By: GP
Analyzed By: AH/GP

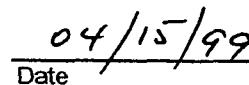
RCRA METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
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ANALYSIS DATE:	04/13/99	04/14/99	04/14/99	04/14/99	04/14/99	04/14/99	04/15/99	04/14/99
H4097-1 MW-1	<0.1	0.067	<1	<0.01	<0.05	0.261	<0.002	<0.05
H4097-2 MW-2	<0.1	0.060	<1	<0.01	<0.05	0.195	<0.002	<0.05
H4097-3 MW-3	<0.1	0.053	<1	<0.01	<0.05	0.242	<0.002	<0.05
H4097-4 MW-4	<0.1	0.059	<1	<0.01	<0.05	0.239	<0.002	<0.05
H4097-5 MW-5	<0.1	0.061	<1	<0.01	<0.05	0.264	<0.002	<0.05
H4097-6 MW-6	<0.1	0.056	<1	<0.01	<0.05	0.208	<0.002	<0.05
Quality Control	0.201	1.020	19.69	0.506	0.046	2.999	0.0095	0.051
True Value QC	0.200	1.000	20.00	0.500	0.050	3.000	0.0100	0.050
% Recovery	101	102	98	101	92	100	95	102
Relative Percent Difference	2.77	0.83	0.28	1.27	4.49	1.38	2.4	3.6

METHODS: EPA 600/4-79-020	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
METHODS: SW-846	7060A	7760A	7080A	7130	7190	7420	7470A	7740


Chemist


Date

H4097M1.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E. CLINTON, SUITE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 09/23/99

Reporting Date: 09/28/99

Project Number: NOT GIVEN

Project Name: CHEVRON / DYNEGY

Project Location: MONUMENT-COOPER

Sampling Date: 09/23/99

Sample Type: GROUNDWATER

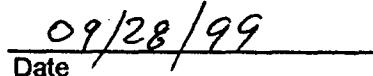
Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: AH/GP

LAB NUMBER SAMPLE ID	F (mg/L)	Ag (mg/L)	Mn (mg/L)	Pb (mg/L)
ANALYSIS DATE	09/24/99	09/28/99	09/28/99	09/28/99
H4357-1 MW #1	1.76	<0.05	0.24	0.34
H4357-2 MW #2	1.85	<0.05	0.48	0.21
H4357-3 MW #3	1.74	<0.05	0.24	0.18
H4357-4 MW #4	1.68	<0.05	0.71	0.20
H4357-5 MW #5	1.88	<0.05	0.57	0.27
H4357-6 MW #6	1.94	<0.05	<0.20	0.16
Quality Control	0.98	2.917	4.007	4.057
True Value QC	1.00	3.000	4.000	4.000
% Accuracy	98	97	100	101
Relative Percent Difference	3.1	0.3	0.1	0.9
METHODS: EPA 600/4-79-020	340.1	272.1	243.1	239.1


Chemist


Date

H4357C.XLS

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**ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.**

Receiving Date: 09/23/99 Sampling Date: 09/23/99
 Reporting Date: 09/27/99 Sample Type: GROUNDWATER
 Project Number: NOT GIVEN Sample Condition: COOL & INTACT
 Project Name: CHEVRON / DYNEGY Sample Received By: GP
 Project Location: MONUMENT-COOPER Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ mhos/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		09/24/99	09/24/99	09/24/99	09/24/99	09/24/99	09/24/99
H4357-1	MW #1	1767	440	284	17.01	1929	224
H4357-2	MW #2	934	200	160	10.99	1881	508
H4357-3	MW #3	827	96	272	11.85	1850	620
H4357-4	MW #4	1167	176	272	20.83	1812	720
H4357-5	MW #5	1600	336	360	44.35	1760	490
H4357-6	MW #6	578	144	122	6.49	1796	290
Quality Control		NR	48	49	4.96	1443	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	96	98	99	102	NR
Relative Percent Difference		NR	6.3	5.1	0	0.4	NR
METHODS:		SM3500-Ca-D	3500-Mg E		8049	120.1	310.1

	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	09/24/99	09/24/99	09/24/99	09/24/99	09/24/99	09/25/99
H4357-1	MW #1	2251	2628	0	7.36	7740
H4357-2	MW #2	1267	874	0	7.38	4270
H4357-3	MW #3	1095	971	0	7.23	3930
H4357-4	MW #4	1612	1088	0	7.30	5190
H4357-5	MW #5	2139	2259	0	7.10	8230
H4357-6	MW #6	933	501	0	7.32	2640
Quality Control	1024	47.47	112	221	7.00	NR
True Value QC	1000	50.00	124	259	7.00	NR
% Accuracy	102	94.9	90.3	85.4	100	NR
Relative Percent Difference	9.8	5.2	-	-	1.4	NR
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1


Dee Whatley
Chemist

09/28/99
Date



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: DEE WHATLEY
703 E. CLINTON, SUITE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 09/23/99

Reporting Date: 09/28/99

Project Number: NOT GIVEN

Project Name: CHEVRON / DYNEGY

Project Location: MONUMENT-COOPER

Sampling Date: 09/23/99

Sample Type: GROUNDWATER

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC/GP/JP

LAB NO.	SAMPLE ID	TPH (mg/L)	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLEMES (mg/L)
ANALYSIS DATE:		09/27/99	09/23/99	09/23/99	09/23/99	09/23/99
H4357-1	MW #1	<1.0	<0.002	<0.002	<0.002	<0.006
H4357-2	MW #2	10.3	<0.002	<0.002	<0.002	<0.006
H4357-3	MW #3	2.52	<0.002	<0.002	<0.002	<0.006
H4357-4	MW #4	2.76	<0.002	<0.002	<0.002	<0.006
H4357-5	MW #5	2.90	<0.002	<0.002	<0.002	<0.006
H4357-6	MW #6	2.66	<0.002	<0.002	<0.002	<0.006
Quality Control		41.3	0.095	0.094	0.093	0.288
True Value QC		40.0	0.100	0.100	0.100	0.300
% Recovery		103	94.8	94.3	92.9	96.0
Relative Percent Difference		0.6	2.9	6.0	6.7	4.5

METHODS: TRPHC - EPA 600/4-79-020, 418.1; BTEX - EPA SW-846 8260

Jennifer L. Cook
Chemist

Date

H4357A.XLS

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
 (915) 673-7001 Fax (915) 673-7020 (505) 393-2476

Company Name: SESI

Project Manager:

Address: 703 E. CLINTON, #103

City: HOBBS State: NM Zip: 88240

Phone #: (505) 397-0510

Fax #: (505) 393-4388

Project #: Project Owner:

Project Name: *Chevron / Dresser*

Project Location: *Monsanto - Cedar*

FOR LAB USE ONLY

PO #: *5110*

Company: SAME

Attn: Address:

City:

State: Zip:

Phone #:

Fax #: *TPH-4181-8242*

BTEX

Cafions & Aerial

ELectrode

Flame

TPH-4181-8242

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ANALYSES

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LAB I.D.	Sample I.D.	MATRIX	PRES.	SAMPLING	OTHER:	ACID:	SLUDGE:	SOIL:	WASTEWATER:	(G)RAB OR (COMP.)	# CONTAINERS	GROUNDWATER:	WASTEWATER:	SLUDGE:	OIL:	ACID:	OTHER:	ICE/COOL:	DATE:	TIME:
44357-1	ML#1	4	/	/	/	/	/	/	/	1	1	1	1	1	/	/	/	8-33-99	1:00pm	
-2	ML#2	3	/	/	/	/	/	/	/	1	1	1	1	1	/	/	/	8-33-99	1:00pm	
-3	ML#3	4	/	/	/	/	/	/	/	1	1	1	1	1	/	/	/	8-33-99	1:00pm	
-4	ML#4	4	/	/	/	/	/	/	/	1	1	1	1	1	/	/	/	8-33-99	1:00pm	
-5	ML#5	4	/	/	/	/	/	/	/	1	1	1	1	1	/	/	/	8-33-99	1:00pm	
-6	ML#6	4	/	/	/	/	/	/	/	1	1	1	1	1	/	/	/	8-33-99	1:00pm	

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Sampler Relinquished:

Date: *8-23-99*

Time: *02:00pm*

Received By: *[Signature]*

Received By: *[Signature]*

Date: *09/23/99*

Time: *1:00pm*

Delivered By: (Circle One)

Sampler • UPS • Bus • Other:

Sample Condition Cool Intact Yes No No No

Checked By: *[Initials]*

Phone Result: Yes No Additional Fax #: *[Signature]*

Fax Result: Yes No

REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 915-873-7020.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BETH ALDRICH
703 E. CLINTON, SUITE #103
HOBBS, NM 88240

FAX TO: (505) 393-4388

Receiving Date: 12/09/99

Reporting Date: 12/13/99

Project Owner: CHEVRON

Project Name: CHEVRON DYNEGY

Project Location: MONUMENT

Sampling Date: 12/09/99

Sample Type: GROUNDWATER

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: AH

LAB NUMBER	SAMPLE ID	Ag (mg/L)	Pb (mg/L)	Mn (mg/L)
------------	-----------	--------------	--------------	--------------

ANALYSIS DATE		12/09/99	12/09/99	12/09/99
H4502-1	MW #1	<0.05	<0.05	<0.20
H4502-2	MW #2	<0.05	<0.05	0.310
H4502-3	MW #3	<0.05	<0.05	<0.20
H4502-4	MW #4	<0.05	<0.05	0.417
H4502-5	MW #5	<0.05	<0.05	0.404
H4502-6	MW #6	<0.05	<0.05	<0.20
Quality Control		4.792	4.966	0.949
True Value QC		5.000	5.000	1.000
% Accuracy		98	99	95
Relative Percent Difference		0.2	0.1	0.2

METHODS: EPA 600/4-79-020	272.1	239.1	243.1
---------------------------	-------	-------	-------



Gayle A. Potter, Chemist

12/14/99
Date

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ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.ATTN: BETH ALDRICH
703 E. CLINTON, SUITE #103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 12/09/99

Reporting Date: 12/13/99

Project Owner: CHEVRON

Project Name: CHEVRON DYNEGY

Project Location: MONUMENT, NM

Sampling Date: 12/09/99

Sample Type: GROUNDWATER

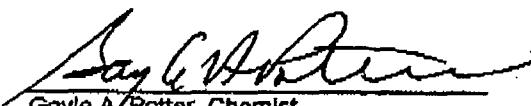
Sample Condition: COOL & INTACT

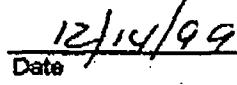
Sample Received By: AH

Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K Conductivity (mg/L) (μ mhos/cm)	F- (mg/L)
ANALYSIS DATE:		12/13/99	12/10/99	12/10/99	12/10/99	12/10/99
H4502-1	MW #1	1558	316	189	30	11580
H4502-2	MW #2	927	154	82	20	6170
H4502-3	MW #3	881	95	149	24	5880
H4502-4	MW #4	1393	136	156	32	7670
H4502-5	MW #5	1285	206	210	40	10650
H4502-6	MW #6	728	115	84	22	4770
Quality Control		NR	48	49	4.96	1392
True Value QC		NR	50	50	5.00	1413
% Accuracy		NR	98	98	99	89
Relative Percent Difference		NR	6.3	5.1	0	0.2
METHODS:		SM3600-Ca-D	3500-Mg E	8049	120.1	SM4500-FD

ANALYSIS DATE:		Cl- (mg/L)	SO4 (mg/L)	CO3 (mg/L)	HCO3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		12/10/99	12/10/99	12/10/99	12/10/99	12/10/99	12/13/99
H4502-1	MW #1	3130	390	0	288	7.25	6130
H4502-2	MW #2	1520	157	0	610	7.23	3540
H4502-3	MW #3	1414	186	0	747	7.22	3610
H4502-4	MW #4	2220	187	0	891	7.30	4770
H4502-5	MW #5	2320	387	0	671	7.44	7000
H4502-6	MW #6	1310	76	0	360	7.33	2090
Quality Control		978	50.1	124	221	7.02	NR
True Value QC		1000	50.0	112	259	7.00	NR
% Accuracy		98	100	110	85	100	NR
Relative Percent Difference		2.2	5.2	-	-	0.1	NR
METHODS:		SM4500-ClB	375.4	310.1	310.1	150.1	160.1



Gayle A. Potter, Chemist

Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BETH ALDRICH
703 E. CLINTON, SUITE #103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 12/09/99
Reporting Date: 12/14/99
Project Owner: CHEVRON
Project Name: CHEVRON DYNEGY
Project Location: MONUMENT

Sampling Date: 12/09/99
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	SAMPLE ID	TPH (mg/L)	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLEMES (mg/L)
ANALYSIS DATE:		12/13/99	12/09/99	12/09/99	12/09/99	12/09/99
H4502-1	MW #1	1.58	<0.002	<0.002	<0.002	<0.006
H4502-2	MW #2	5.17	<0.002	<0.002	0.004	<0.006
H4502-3	MW #3	<1.0	<0.002	<0.002	<0.002	<0.006
H4502-4	MW #4	<1.0	<0.002	<0.002	<0.002	<0.006
H4502-5	MW #5	<1.0	<0.002	<0.002	<0.002	<0.006
H4502-6	MW #6	<1.0	<0.002	<0.002	<0.002	<0.006
Quality Control		3.93	0.088	0.091	0.082	0.285
True Value QC		4.00	0.100	0.100	0.100	0.300
% Recovery		98.1	87.6	90.8	91.9	95.0
Relative Percent Difference		5.6	0.8	3.9	2.5	1.7

METHODS: TRPHC - EPA 600/4-79-020, 418.1; BTEX - EPA SW-846 8260

Bunsett R. Codde
Chemist

12/14/99
Date

H4502A.XLS

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