

Scientific Drilling

READ & STEVENS, INC.

Field: Wildcat
Site: Lea County, NM
Well: Liberty Federal Com 4 #2
Wellpath: DH - Job #32D0802270
Survey: 8/8/02-8/17/02

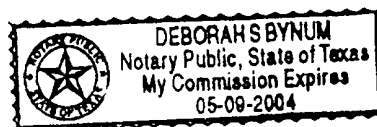
SUR:2020/S & 2310/E
BHL: 2000/S & 2275/E
Sec.4, T-20s, R-36e
30-025-35947

This survey is correct to the best of my knowledge
and is supported by actual field data.

Read Moody Company Representative

Notorized this date 16th of September, 2002.

Deborah Sue Bynum
Notary Signature
County of Midland
State of Texas



Scientific Drilling International

Survey Report

Company: READ & STEVENS, INC.
 Field: Wildcat
 Site: Lea County, NM
 Well: Liberty Federal Com 4 #2
 Wellpath: DH - Job #32D0802270

Date: 9/15/2002 Time: 17:30:39 Page: 1
 Co-ordinate(NE) Reference: Site: Lea County, NM, True North
 Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
 Section (VS) Reference: Well (0.0E,0.0N,0.0Azi)
 Survey Calculation Method: Minimum Curvature

Survey: 8/8/02-8/17/02
 S/T 7503'-9400'

Start Date: 9/15/2002

Company: Scientific Drilling Internatio
 Tool: Steering Tool

Engineer: Victor Melediez

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
7490.0	4.39	141.91	7487.4	-60.5	-60.5	123.8	137.8	116.04	0.00
7503.0	4.10	145.10	7500.4	-61.3	-61.3	124.4	138.6	116.23	2.88
7598.0	2.30	178.40	7595.2	-66.0	-66.0	126.4	142.6	117.56	2.65
7694.0	2.10	185.20	7691.1	-69.6	-69.6	126.3	144.2	118.88	0.34
7789.0	2.70	201.80	7786.1	-73.5	-73.5	125.3	145.2	120.38	0.96
7885.0	0.90	181.10	7882.0	-76.3	-76.3	124.4	146.0	121.52	1.96
7980.0	1.50	260.90	7977.0	-77.2	-77.2	123.2	145.4	122.09	1.69
8075.0	2.80	302.00	8071.9	-76.2	-76.2	120.0	142.1	122.42	2.04
8170.0	3.30	290.20	8166.8	-74.0	-74.0	115.4	137.2	122.67	0.84
8265.0	4.30	308.60	8261.6	-70.9	-70.9	110.1	130.9	122.77	1.65
8361.0	3.70	311.00	8357.4	-66.6	-66.6	104.9	124.3	122.40	0.65
8456.0	3.70	296.10	8452.2	-63.2	-63.2	99.9	118.2	122.34	1.01
8551.0	4.60	296.30	8546.9	-60.2	-60.2	93.7	111.4	122.72	0.95
8647.0	4.40	304.80	8642.6	-56.4	-56.4	87.2	103.9	122.88	0.72
8742.0	4.47	305.54	8737.3	-52.2	-52.2	81.2	96.5	122.71	0.10
8837.0	5.40	314.60	8832.0	-46.9	-46.9	75.0	88.5	121.99	1.27
8933.0	5.00	318.40	8927.6	-40.6	-40.6	69.0	80.1	120.44	0.55
9029.0	5.10	308.40	9023.2	-34.8	-34.8	62.9	71.9	118.94	0.92
9124.0	4.90	307.70	9117.9	-29.7	-29.7	56.4	63.7	117.76	0.22
9220.0	5.10	280.60	9213.5	-26.4	-26.4	49.0	55.6	118.33	2.45
9315.0	4.90	296.80	9308.1	-23.8	-23.8	41.2	47.6	120.01	1.50
9364.0	4.90	299.70	9357.0	-21.8	-21.8	37.5	43.4	120.18	0.51
9400.0	4.90	299.70	9392.8	-20.3	-20.3	34.8	40.3	120.21	0.00