

A Gyrodata Directional Survey

for

EOG RESOURCES

**Well: R.H.N.U. No. 904, 4-1/2" Drillpipe
Location: McVay #10, Lea County, New Mexico**

Job Number: MD1103GW312

Run Date: 11/25/2003 3:35:45 PM

Surveyor: Mike Martinez

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.134600 deg. N Longitude: 103.494300 deg. W

Azimuth Correction:

Gyro: -0.42000 deg West to Grid North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

SUR: C-17-25s-34e, 1000/N & 1700M
BHL: D-7-25s-34e, 1088/N & 114M
API # 30-025-36237



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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0 - 11,884 FT. DROP GYROSCOPIC SURVEY RUN INSIDE 4 1/2" DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO McVAY #10 R.K.B.							

100.00	0.19	192.70	S 12 42 W	0.19	100.00	0.2 192.7	0.16 S 0.04 W
200.00	1.01	89.35	N 89 21 E	1.07	199.99	0.9 111.3	0.31 S 0.81 E
300.00	1.37	93.31	S 86 42 E	0.37	299.97	2.9 97.4	0.37 S 2.89 E
400.00	1.56	92.43	S 87 34 E	0.18	399.94	5.5 95.3	0.50 S 5.44 E
500.00	1.79	94.14	S 85 51 E	0.24	499.90	8.4 94.6	0.67 S 8.35 E
600.00	1.93	95.66	S 84 20 E	0.15	599.85	11.6 94.7	0.95 S 11.58 E
700.00	1.94	94.64	S 85 22 E	0.04	699.79	15.0 94.8	1.25 S 14.94 E
800.00	1.71	78.13	N 78 8 E	0.57	799.74	18.1 93.4	1.08 S 18.08 E
900.00	1.74	74.45	N 74 27 E	0.11	899.69	21.0 91.0	0.37 S 21.01 E
1000.00	1.84	74.85	N 74 51 E	0.10	999.64	24.0 88.9	0.46 N 24.01 E
1100.00	1.80	74.26	N 74 16 E	0.04	1099.59	27.1 87.2	1.30 N 27.07 E
1200.00	1.73	72.54	N 72 33 E	0.09	1199.55	30.1 85.8	2.18 N 30.03 E
1300.00	1.68	74.92	N 74 55 E	0.09	1299.50	33.0 84.8	3.02 N 32.89 E
1400.00	1.70	78.16	N 78 10 E	0.10	1399.46	36.0 84.1	3.71 N 35.76 E
1500.00	1.79	81.46	N 81 27 E	0.13	1499.41	39.0 83.8	4.24 N 38.76 E
1600.00	1.77	85.44	N 85 27 E	0.13	1599.36	42.1 83.7	4.60 N 41.85 E
1700.00	1.74	84.49	N 84 29 E	0.04	1699.32	45.2 83.8	4.87 N 44.90 E
1800.00	1.49	91.37	S 88 38 E	0.31	1799.28	48.0 84.0	4.98 N 47.72 E
1900.00	1.51	95.02	S 84 59 E	0.10	1899.24	50.6 84.5	4.83 N 50.33 E
2000.00	1.41	94.08	S 85 55 E	0.10	1999.21	53.1 85.0	4.63 N 52.88 E

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet	
2100.00	1.41	93.96	S 86 2 E	0.00	2099.18	55.5	85.4	4.46 N	55.34 E
2200.00	1.66	94.10	S 85 54 E	0.24	2199.14	58.2	85.8	4.27 N	58.01 E
2300.00	1.70	95.22	S 84 47 E	0.05	2299.10	61.1	86.2	4.03 N	60.93 E
2400.00	1.87	90.38	S 89 37 E	0.23	2399.05	64.2	86.5	3.89 N	64.03 E
2500.00	1.86	90.34	S 89 40 E	0.01	2499.00	67.4	86.7	3.86 N	67.29 E
2600.00	1.92	89.76	N 89 45 E	0.07	2598.94	70.7	86.9	3.86 N	70.59 E
2700.00	1.78	84.70	N 84 42 E	0.21	2698.89	73.9	86.9	4.01 N	73.81 E
2800.00	1.78	94.56	S 85 27 E	0.31	2798.84	77.0	87.0	4.03 N	76.91 E
2900.00	2.02	84.54	N 84 32 E	0.41	2898.79	80.3	87.1	4.08 N	80.21 E
3000.00	2.19	86.24	N 86 15 E	0.19	2998.72	84.0	87.0	4.37 N	83.87 E
3100.00	2.20	88.12	N 88 7 E	0.07	3098.65	87.8	87.0	4.56 N	87.70 E
3200.00	2.18	89.71	N 89 43 E	0.06	3198.58	91.6	87.1	4.63 N	91.52 E
3300.00	1.59	90.97	S 89 2 E	0.60	3298.52	94.9	87.2	4.62 N	94.81 E
3400.00	1.56	89.15	N 89 9 E	0.06	3398.48	97.7	87.3	4.61 N	97.55 E
3500.00	1.25	89.68	N 89 41 E	0.31	3498.45	100.1	87.3	4.64 N	100.00 E
3600.00	1.20	87.59	N 87 35 E	0.07	3598.43	102.2	87.4	4.69 N	102.14 E
3700.00	1.30	84.02	N 84 1 E	0.13	3698.41	104.4	87.3	4.85 N	104.31 E
3800.00	1.18	80.92	N 80 55 E	0.14	3798.38	106.6	87.2	5.13 N	106.45 E
3900.00	1.29	83.70	N 83 42 E	0.13	3898.36	108.7	87.1	5.42 N	108.58 E
4000.00	1.17	90.62	S 89 23 E	0.19	3998.34	110.9	87.1	5.53 N	110.72 E
4100.00	0.88	110.96	S 69 2 E	0.46	4098.32	112.6	87.3	5.24 N	112.45 E
4200.00	1.09	112.52	S 67 29 E	0.20	4198.31	114.1	87.7	4.60 N	114.05 E
4300.00	1.39	119.02	S 60 59 E	0.33	4298.28	116.0	88.2	3.65 N	115.99 E
4400.00	1.54	121.88	S 58 7 E	0.17	4398.25	118.2	88.9	2.35 N	118.19 E

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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4500.00	1.71	124.19	S 55 48 E	0.18	4498.21	120.6 89.6	0.80 N 120.57 E
4600.00	2.04	124.27	S 55 44 E	0.33	4598.16	123.3 90.5	1.04 S 123.28 E
4700.00	2.18	125.24	S 54 46 E	0.14	4698.09	126.3 91.4	3.14 S 126.30 E
4800.00	1.46	123.41	S 56 35 E	0.72	4798.04	129.0 92.2	4.94 S 128.92 E
4900.00	1.72	127.48	S 52 31 E	0.29	4898.00	131.3 92.9	6.55 S 131.17 E
5000.00	1.86	124.96	S 55 3 E	0.16	4997.95	134.0 93.6	8.39 S 133.69 E
5100.00	1.23	124.68	S 55 19 E	0.63	5097.91	136.3 94.2	9.94 S 135.91 E
5200.00	0.88	137.48	S 42 31 E	0.42	5197.90	137.8 94.6	11.12 S 137.31 E
5300.00	0.65	154.74	S 25 16 E	0.33	5297.89	138.6 95.0	12.20 S 138.07 E
5400.00	0.73	152.81	S 27 12 E	0.08	5397.88	139.2 95.5	13.27 S 138.60 E
5500.00	0.68	157.32	S 22 41 E	0.08	5497.87	139.9 95.9	14.38 S 139.12 E
5600.00	0.64	155.01	S 24 59 E	0.05	5597.87	140.4 96.3	15.43 S 139.58 E
5700.00	0.44	143.69	S 36 19 E	0.23	5697.86	141.0 96.6	16.24 S 140.05 E
5800.00	0.37	156.21	S 23 48 E	0.11	5797.86	141.4 96.8	16.85 S 140.40 E
5900.00	0.23	177.61	S 2 23 E	0.17	5897.86	141.6 97.0	17.35 S 140.54 E
6000.00	0.33	175.48	S 4 31 E	0.09	5997.86	141.7 97.2	17.84 S 140.57 E
6100.00	0.31	178.48	S 1 31 E	0.02	6097.85	141.8 97.5	18.40 S 140.60 E
6200.00	0.29	155.06	S 24 56 E	0.12	6197.85	142.0 97.6	18.90 S 140.72 E
6300.00	0.40	184.45	S 4 27 W	0.20	6297.85	142.1 97.9	19.48 S 140.80 E
6400.00	0.30	180.97	S 0 58 W	0.10	6397.85	142.2 98.1	20.09 S 140.77 E
6500.00	0.30	166.56	S 13 27 E	0.08	6497.85	142.3 98.3	20.61 S 140.82 E
6600.00	0.34	169.19	S 10 49 E	0.04	6597.85	142.5 98.5	21.16 S 140.94 E
6700.00	0.34	165.08	S 14 55 E	0.02	6697.85	142.7 98.8	21.73 S 141.07 E
6800.00	0.39	160.67	S 19 20 E	0.06	6797.84	143.0 99.0	22.33 S 141.26 E

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6900.00	0.43	166.15	S 13 51 E	0.06	6897.84	143.3 99.2	23.01 S 141.46 E
7000.00	0.36	183.53	S 3 32 W	0.14	6997.84	143.5 99.5	23.69 S 141.53 E
7100.00	0.35	177.44	S 2 34 E	0.04	7097.84	143.6 99.7	24.30 S 141.52 E
7200.00	0.29	180.06	S 0 4 W	0.06	7197.83	143.7 100.0	24.86 S 141.54 E
7300.00	0.46	175.02	S 4 59 E	0.17	7297.83	143.9 100.2	25.51 S 141.57 E
7400.00	0.52	186.55	S 6 33 W	0.12	7397.83	144.0 100.6	26.36 S 141.55 E
7500.00	0.55	188.05	S 8 3 W	0.03	7497.82	144.0 100.9	27.29 S 141.43 E
7600.00	0.71	185.68	S 5 41 W	0.17	7597.82	144.1 101.4	28.39 S 141.31 E
7700.00	0.65	175.06	S 4 56 E	0.14	7697.81	144.4 101.8	29.58 S 141.29 E
7800.00	0.73	194.54	S 14 32 W	0.25	7797.80	144.5 102.3	30.76 S 141.18 E
7900.00	0.60	185.34	S 5 21 W	0.17	7897.80	144.5 102.7	31.89 S 140.97 E
8000.00	0.67	180.17	S 0 10 W	0.09	7997.79	144.7 103.2	33.00 S 140.92 E
8100.00	0.63	180.80	S 0 48 W	0.04	8097.79	145.0 103.6	34.13 S 140.91 E
8200.00	0.75	179.15	S 0 51 E	0.12	8197.78	145.3 104.1	35.33 S 140.92 E
8300.00	0.62	184.69	S 4 42 W	0.14	8297.77	145.5 104.5	36.52 S 140.88 E
8400.00	0.60	187.29	S 7 17 W	0.03	8397.77	145.7 104.9	37.58 S 140.77 E
8500.00	0.54	188.48	S 8 29 W	0.06	8497.76	145.8 105.3	38.56 S 140.63 E
8600.00	0.58	172.15	S 7 51 E	0.16	8597.76	146.1 105.7	39.53 S 140.63 E
8700.00	0.65	182.00	S 2 0 W	0.13	8697.75	146.4 106.1	40.60 S 140.68 E
8800.00	0.49	184.54	S 4 32 W	0.16	8797.74	146.7 106.5	41.59 S 140.63 E
8900.00	0.28	176.74	S 3 15 E	0.22	8897.74	146.8 106.7	42.26 S 140.61 E
8983.72	0.43	179.15	S 0 51 E	0.19	8981.46	147.0 106.9	42.77 S 140.63 E
9078.72	0.67	171.06	S 8 56 E	0.27	9076.46	147.3 107.2	43.68 S 140.72 E
9173.72	0.83	174.83	S 5 10 E	0.18	9171.45	147.9 107.7	44.92 S 140.87 E

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9268.72	0.67	180.56	S 0 33 W	0.19	9266.44	148.3 108.1	46.16 S 140.92 E
9363.72	0.56	175.64	S 4 22 E	0.12	9361.43	148.6 108.5	47.18 S 140.95 E
9458.72	0.49	175.48	S 4 31 E	0.08	9456.43	149.0 108.8	48.05 S 141.02 E
9553.72	0.50	176.53	S 3 29 E	0.01	9551.43	149.3 109.1	48.87 S 141.08 E
9648.72	0.54	175.81	S 4 12 E	0.05	9646.42	149.6 109.4	49.73 S 141.14 E
9743.72	0.50	166.18	S 13 49 E	0.10	9741.42	150.1 109.7	50.58 S 141.27 E
9838.72	0.59	155.16	S 24 51 E	0.14	9836.41	150.6 110.0	51.43 S 141.57 E
9933.72	0.72	115.65	S 64 21 E	0.48	9931.41	151.6 110.1	52.13 S 142.32 E
10028.72	1.13	115.37	S 64 38 E	0.44	10026.40	153.1 110.2	52.79 S 143.70 E
10123.72	0.81	116.07	S 63 56 E	0.34	10121.38	154.7 110.2	53.49 S 145.16 E
10218.72	0.83	124.63	S 55 22 E	0.13	10216.37	156.0 110.3	54.18 S 146.33 E
10313.72	0.83	121.16	S 58 50 E	0.05	10311.36	157.4 110.4	54.93 S 147.48 E
10408.72	1.06	122.86	S 57 8 E	0.25	10406.35	158.9 110.5	55.76 S 148.81 E
10503.72	1.08	118.86	S 61 8 E	0.08	10501.33	160.7 110.7	56.67 S 150.34 E
10598.72	0.90	124.07	S 55 56 E	0.22	10596.32	162.3 110.8	57.52 S 151.74 E
10693.72	0.92	114.57	S 65 26 E	0.16	10691.31	163.8 110.8	58.25 S 153.05 E
10788.72	0.54	99.95	S 80 3 E	0.44	10786.30	165.0 110.8	58.65 S 154.19 E
10883.72	0.69	88.96	N 88 57 E	0.19	10881.29	165.9 110.7	58.72 S 155.20 E
10978.72	0.41	70.54	N 70 33 E	0.34	10976.29	166.7 110.6	58.59 S 156.10 E
11073.72	0.24	52.84	N 52 50 E	0.21	11071.29	167.1 110.4	58.36 S 156.58 E
11168.72	0.22	336.65	N 23 21 W	0.30	11166.29	167.1 110.3	58.07 S 156.67 E
11263.72	0.11	273.33	N 86 40 W	0.20	11261.29	166.9 110.3	57.90 S 156.51 E
11358.72	0.52	101.36	S 78 38 E	0.66	11356.29	167.2 110.3	57.98 S 156.83 E
11453.72	0.73	93.41	S 86 35 E	0.24	11451.28	168.2 110.2	58.10 S 157.86 E

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11548.72	0.73	93.28	S 86 43 E	0.00	11546.27	169.4 110.1	58.17 S 159.06 E
11643.72	0.69	97.64	S 82 22 E	0.07	11641.27	170.5 110.0	58.28 S 160.23 E
11738.72	0.74	98.51	S 81 29 E	0.06	11736.26	171.7 109.9	58.45 S 161.41 E

Final Station Closure: Distance: 171.67 ft Az: 109.91 deg.

EOG RESOURCES

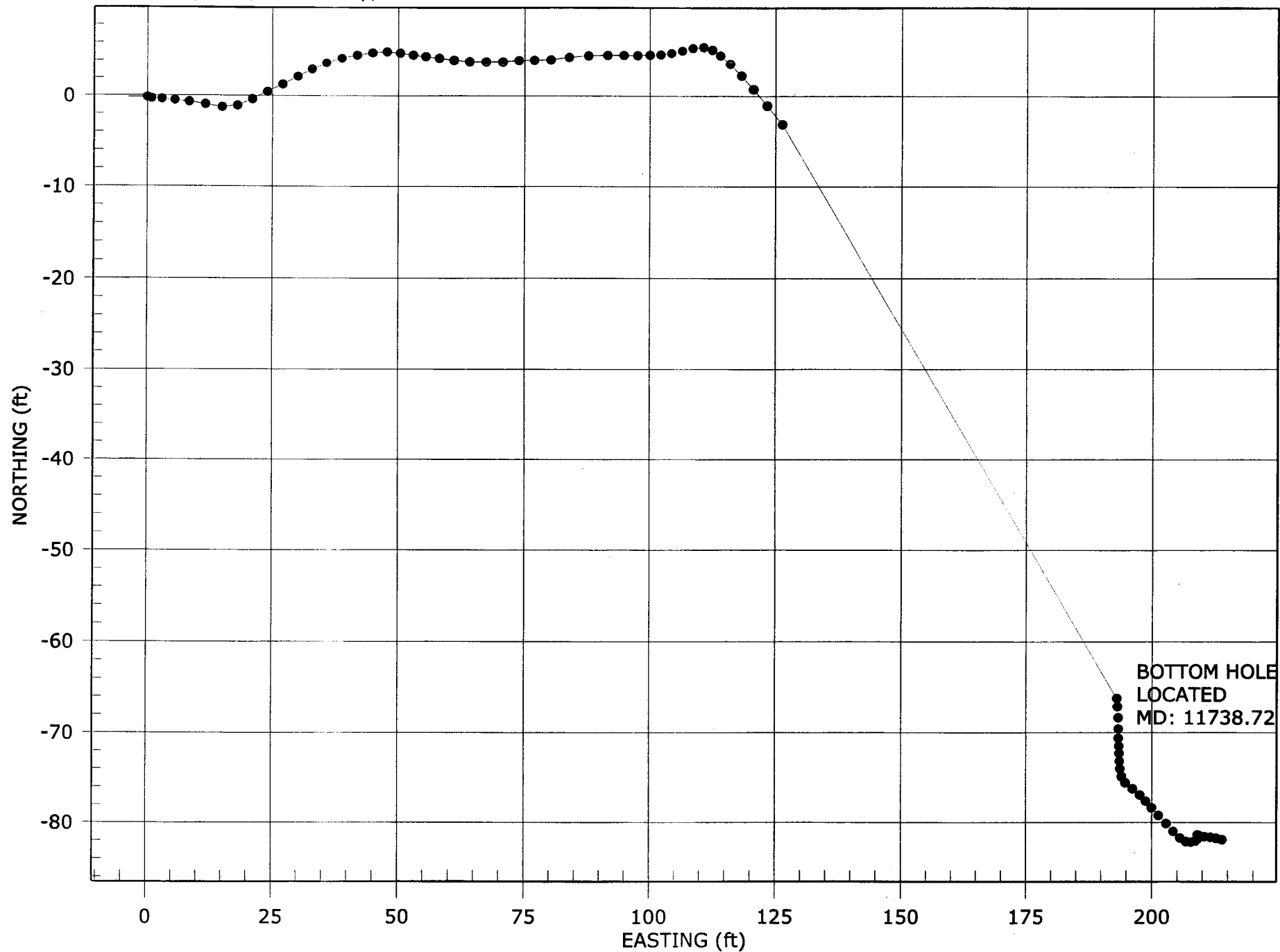
Well: No. 904 4-1/2" Drillpipe

Location: McVay #10, Lea County, New Mexico

Outrun

Gyrodata

MD1103GW312 DEFINITIVE



EOG RESOURCES

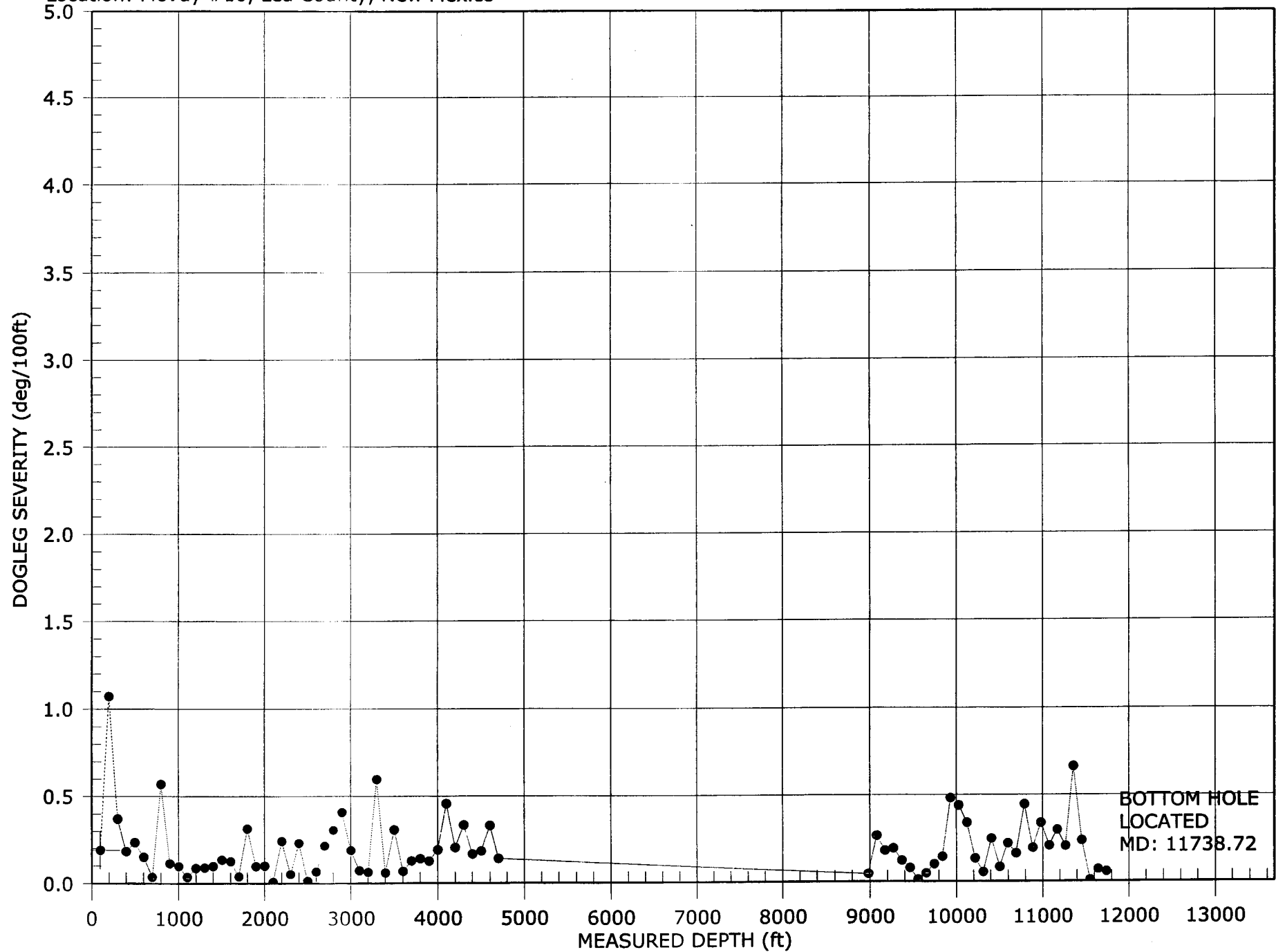
Well: No. 904 4-1/2" Drillpipe

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Outrun

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EOG RESOURCES

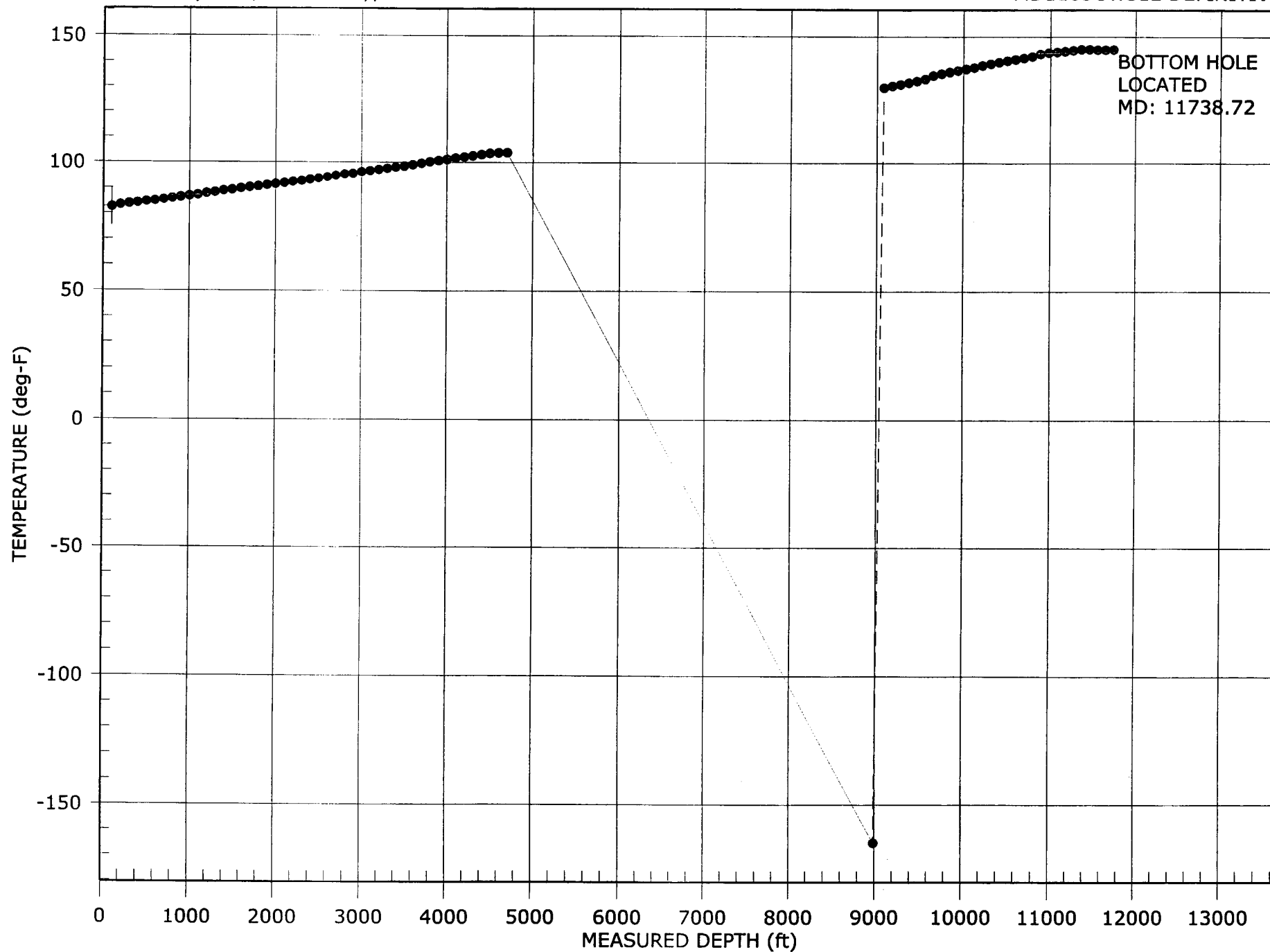
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Outrun

Gyrodata

MD1103GW312 DEFINITIVE



**McVAY DRILLING COMPANY**

Post Office Box 924
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

Well Name and Number: Red Hills North Unit # 904

Location: EOG

Operator: Lea

Drilling Contractor: McVay Drilling Company

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
1/4	302	1	8839	90 3/4	13201
2	670	1	9353	91 1/2	13327
1 1/2	717	1	9863	91 1/2	13390
1 3/4	1245	3/4	10344	91	13620
1 3/4	2104	1	10857	90 1/4	13676
2	2673	1	11320	92	13834
1 3/4	3149	1/2	11819	93	13929
1 1/2	3720	23	12012	90 1/4	14148
1	4006	50 1/2	12201	87 1/2	14338
1	4490	53.8	12234	92 3/4	12880
1 3/4	4960	63.5	12336	93 3/4	13039
1 1/4	5100	69.9	12694	93 1/4	13419
3/4	6093	77.5	12490	93 1/4	13451
3/4	6600	89	12600	92 3/4	13578
1/2	7100	87 1/4	12632	96	13546
1	7643	89 1/4	12695	93 1/2	13610
1/2	8121	88 1/4	12727	90 1/2	13704
3/4	8689	89 1/2	13107	90 1/2	13736
				90 1/2	13767
				88 1/4	12727

Drilling Contractor: McVay Drilling Company

By: [Signature]

Subscribed and sworn to before me this 9th day of January, 2004

[Signature]
Notary Public

My Commission Expires: 8-16-05

Lea County, New Mexico

