

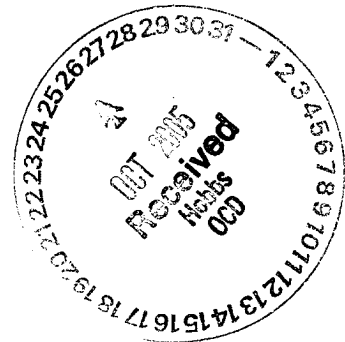
OPERATOR Chesapeake Operating
WELL/LEASE 07 Ranch 2 #1
COUNTY Lea, NM

054-0061

STATE OF NEW MEXICO
DEVIATION REPORT

G-2-125-38e
1980/N 1920/E
30.025-37404

235	1/2
403	3/4
903	3/4
1,401	1
1,902	1
2,408	1

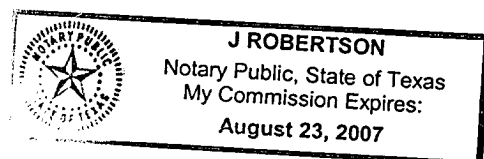


BY: [Signature]

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on October 3, 2005, by Steve Moore on behalf of Patterson - UTI Drilling Company, LP, LLLP.

[Signature]
Notary Public for Midland County, Texas
My Commission Expires: 8/23/07





MWD SURVEY REPORT

MWD Services, Inc.

Survey End Date : September 18, 2005
 Job Number : 05105
 Operator : Chesapeake Operating, Inc.
 Lease / Well : 07 Ranch -2- #1
 Location : Lea County, New Mexico
 Field : Ranch
 Contractor / Rig : Patterson Drilling 54
 Directional Company : Quantum Drilling Motors
 MWD Field Rep. : Joe Covington, Jimm Haas, Eric Blandin
 Tie In Survey Reference : Surface, Assume Vertical
 Calculation Method : Minimum Curvature

Target +N / -S = 0.0'
 Target +E / -W = 1087.7'
 Target TVD = 9900.0'
 Magnetic Declination +E / -W = 8.12°
 Grid Convergence +E / -W = 0.70°
 Total Correction +E / -W = 8.12°
 North Reference = True
 RKB Height = 16.00'
 Ground Level Elevation = 3858'
 Vertical Section Azimuth = 90.00°

Comments :

Survey #0 = Tie In Survey
 Survey #129 = Projected Survey To Bit Depth

SUR: G-2-12s-38e, 1980/N & 1920/E
 BHL: H-2-12s-38e, 1983/N & 839/E
 API #30-025-37404

Srv. No.	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (deg/100 ')
							+N / -S (ft)	+E / -W (ft)	Distance (ft)	Azimuth (deg)	
0	0.00'	0.00°	0.00°		0.00'	0.00'	0.00'	0.00'			
1	635.00'	0.60°	164.20°	635'	634.99'	0.91'	-3.20'	0.91'	3.32'	164.20°	0.09°
2	780.00'	0.50°	188.90°	145'	779.98'	1.01'	-4.55'	1.01'	4.67'	167.45°	0.18°
3	966.00'	0.60°	165.20°	186'	965.97'	1.14'	-6.30'	1.14'	6.40'	169.76°	0.13°
4	1160.00'	0.90°	158.50°	194'	1159.96'	1.96'	-8.70'	1.96'	8.91'	167.33°	0.16°
5	1358.00'	0.80°	158.50°	198'	1357.93'	3.03'	-11.43'	3.03'	11.83'	165.15°	0.05°
6	1555.00'	0.50°	132.20°	197'	1554.92'	4.17'	-13.29'	4.17'	13.93'	162.57°	0.21°
7	1747.00'	0.30°	139.80°	192'	1746.92'	5.12'	-14.23'	5.12'	15.13'	160.23°	0.11°
8	1939.00'	0.30°	288.90°	192'	1938.92'	4.97'	-14.46'	4.97'	15.28'	161.04°	0.30°
9	2131.00'	0.20°	359.30°	192'	2130.92'	4.49'	-13.96'	4.49'	14.66'	162.18°	0.16°
10	2323.00'	0.50°	110.30°	192'	2322.91'	5.27'	-13.91'	5.27'	14.88'	159.26°	0.31°
11	2396.00'	0.30°	124.30°	73'	2395.91'	5.73'	-14.13'	5.73'	15.25'	157.95°	0.30°
12	2460.00'	0.90°	122.80°	64'	2459.91'	6.29'	-14.50'	6.29'	15.80'	156.56°	0.94°
13	2523.00'	1.80°	115.40°	63'	2522.89'	7.60'	-15.19'	7.60'	16.98'	153.43°	1.45°
14	2587.00'	3.00°	103.80°	64'	2586.83'	10.13'	-16.02'	10.13'	18.96'	147.69°	2.01°
15	2650.00'	3.80°	95.60°	63'	2649.72'	13.81'	-16.62'	13.81'	21.61'	140.27°	1.48°
16	2713.00'	4.50°	89.60°	63'	2712.56'	18.36'	-16.80'	18.36'	24.89'	132.47°	1.31°
17	2776.00'	5.40°	88.00°	63'	2775.32'	23.79'	-16.68'	23.79'	29.06'	125.04°	1.45°
18	2838.00'	5.80°	85.00°	62'	2837.02'	29.83'	-16.31'	29.83'	34.00'	118.67°	0.80°
19	2900.00'	7.20°	83.40°	62'	2898.62'	36.81'	-15.59'	36.81'	39.97'	112.95°	2.28°
20	2963.00'	7.60°	86.00°	63'	2961.10'	44.89'	-14.84'	44.89'	47.28'	108.30°	0.83°
21	3027.00'	8.00°	84.20°	64'	3024.51'	53.54'	-14.10'	53.54'	55.37'	104.75°	0.73°
22	3090.00'	9.00°	85.20°	63'	3086.81'	62.81'	-13.24'	62.81'	64.19'	101.91°	1.60°
23	3152.00'	9.40°	84.60°	62'	3148.02'	72.69'	-12.36'	72.69'	73.73'	99.65°	0.66°
24	3215.00'	9.00°	84.70°	63'	3210.21'	82.71'	-11.42'	82.71'	83.50'	97.86°	0.64°
25	3278.00'	9.20°	83.30°	63'	3272.41'	92.62'	-10.38'	92.62'	93.20'	96.39°	0.47°
26	3340.00'	9.00°	84.40°	62'	3333.63'	102.37'	-9.33'	102.37'	102.80'	95.21°	0.43°
27	3403.00'	9.20°	84.00°	63'	3395.84'	112.28'	-8.32'	112.28'	112.59'	94.24°	0.33°

Srv. No.	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates +N / -S +E / -W		Closure Distance Azimuth		Dogleg Severity (deg/100')
28	3466.00'	9.40°	83.70°	63'	3458.01'	122.41'	-7.23'	122.41'	122.62'	93.38°	0.33°
29	3530.00'	8.90°	84.70°	64'	3521.20'	132.53'	-6.20'	132.53'	132.68'	92.68°	0.82°
30	3592.00'	9.20°	84.80°	62'	3582.43'	142.24'	-5.31'	142.24'	142.34'	92.14°	0.48°
31	3654.00'	9.30°	89.80°	62'	3643.62'	152.19'	-4.84'	152.19'	152.27'	91.82°	1.31°
32	3717.00'	9.00°	89.30°	63'	3705.82'	162.21'	-4.76'	162.21'	162.28'	91.68°	0.49°
33	3770.00'	8.40°	89.10°	53'	3758.21'	170.22'	-4.65'	170.22'	170.29'	91.57°	1.13°
34	3814.00'	8.70°	88.40°	44'	3801.72'	176.76'	-4.51'	176.76'	176.82'	91.46°	0.72°
35	3877.00'	9.30°	92.00°	63'	3863.94'	186.61'	-4.55'	186.61'	186.67'	91.40°	1.31°
36	3940.00'	9.20°	92.50°	63'	3926.13'	196.73'	-4.95'	196.73'	196.79'	91.44°	0.20°
37	4003.00'	8.70°	90.80°	63'	3988.36'	206.53'	-5.24'	206.53'	206.59'	91.45°	0.90°
38	4064.00'	8.60°	90.20°	61'	4048.66'	215.70'	-5.32'	215.70'	215.77'	91.41°	0.22°
39	4126.00'	9.10°	90.70°	62'	4109.93'	225.24'	-5.39'	225.24'	225.30'	91.37°	0.82°
40	4189.00'	9.10°	88.60°	63'	4172.13'	235.20'	-5.33'	235.20'	235.26'	91.30°	0.53°
41	4252.00'	7.90°	85.60°	63'	4234.44'	244.50'	-4.88'	244.50'	244.55'	91.14°	2.03°
42	4316.00'	8.00°	85.10°	64'	4297.83'	253.32'	-4.16'	253.32'	253.36'	90.94°	0.19°
43	4378.00'	8.80°	85.90°	62'	4359.16'	262.35'	-3.45'	262.35'	262.37'	90.75°	1.30°
44	4438.00'	8.80°	87.40°	60'	4418.45'	271.51'	-2.92'	271.51'	271.53'	90.62°	0.38°
45	4510.00'	8.70°	88.90°	72'	4489.62'	282.46'	-2.56'	282.46'	282.47'	90.52°	0.35°
46	4558.00'	8.30°	90.40°	48'	4537.09'	289.55'	-2.52'	289.55'	289.56'	90.50°	0.95°
47	4620.00'	7.80°	90.70°	62'	4598.48'	298.24'	-2.60'	298.24'	298.25'	90.50°	0.81°
48	4682.00'	8.60°	85.60°	62'	4659.84'	307.06'	-2.29'	307.06'	307.07'	90.43°	1.74°
49	4746.00'	8.70°	84.90°	64'	4723.12'	316.66'	-1.50'	316.66'	316.66'	90.27°	0.23°
50	4809.00'	8.30°	84.90°	63'	4785.42'	325.93'	-0.67'	325.93'	325.93'	90.12°	0.63°
51	4871.00'	8.70°	86.00°	62'	4846.74'	335.07'	0.06'	335.07'	335.07'	89.99°	0.70°
52	4934.00'	8.30°	86.90°	63'	4909.05'	344.36'	0.63'	344.36'	344.36'	89.89°	0.67°
53	5057.00'	7.70°	84.90°	123'	5030.85'	361.43'	1.85'	361.43'	361.44'	89.71°	0.54°
54	5120.00'	8.30°	88.40°	63'	5093.24'	370.18'	2.35'	370.18'	370.19'	89.64°	1.23°
55	5183.00'	8.20°	87.60°	63'	5155.59'	379.22'	2.66'	379.22'	379.23'	89.60°	0.24°
56	5245.00'	8.30°	88.50°	62'	5216.95'	388.11'	2.97'	388.11'	388.12'	89.56°	0.26°
57	5309.00'	8.10°	88.30°	64'	5280.29'	397.23'	3.22'	397.23'	397.25'	89.54°	0.32°
58	5370.00'	7.90°	87.10°	61'	5340.70'	405.71'	3.56'	405.71'	405.73'	89.50°	0.43°
59	5432.00'	8.20°	88.30°	62'	5402.09'	414.39'	3.91'	414.39'	414.41'	89.46°	0.55°
60	5495.00'	9.70°	89.50°	63'	5464.32'	424.19'	4.09'	424.19'	424.21'	89.45°	2.40°
61	5558.00'	9.90°	90.30°	63'	5526.40'	434.91'	4.10'	434.91'	434.93'	89.46°	0.38°
62	5621.00'	9.90°	90.20°	63'	5588.46'	445.74'	4.06'	445.74'	445.76'	89.48°	0.03°
63	5684.00'	9.70°	89.90°	63'	5650.54'	456.47'	4.05'	456.47'	456.48'	89.49°	0.33°
64	5747.00'	9.40°	90.90°	63'	5712.67'	466.92'	3.98'	466.92'	466.93'	89.51°	0.54°
65	5810.00'	9.10°	90.90°	63'	5774.85'	477.04'	3.82'	477.04'	477.06'	89.54°	0.48°
66	5873.00'	8.80°	90.00°	63'	5837.08'	486.84'	3.74'	486.84'	486.86'	89.56°	0.53°
67	5945.00'	8.60°	89.50°	72'	5908.25'	497.73'	3.79'	497.73'	497.75'	89.56°	0.30°
68	6009.00'	8.10°	90.50°	64'	5971.58'	507.03'	3.79'	507.03'	507.04'	89.57°	0.81°
69	6072.00'	8.30°	94.10°	63'	6033.93'	516.00'	3.42'	516.00'	516.01'	89.62°	0.87°
70	6134.00'	8.10°	95.00°	62'	6095.30'	524.82'	2.72'	524.82'	524.82'	89.70°	0.38°
71	6196.00'	7.70°	95.50°	62'	6156.71'	533.30'	1.95'	533.30'	533.31'	89.79°	0.65°
72	6260.00'	8.40°	95.70°	64'	6220.08'	542.22'	1.07'	542.22'	542.22'	89.89°	1.09°
73	6324.00'	8.10°	97.00°	64'	6283.42'	551.35'	0.06'	551.35'	551.35'	89.99°	0.55°
74	6392.00'	7.70°	99.30°	68'	6350.77'	560.60'	-1.26'	560.60'	560.60'	90.13°	0.75°
75	6456.00'	7.70°	98.10°	64'	6414.19'	569.08'	-2.56'	569.08'	569.08'	90.26°	0.25°
76	6519.00'	8.10°	94.10°	63'	6476.60'	577.68'	-3.47'	577.68'	577.69'	90.34°	1.08°
77	6582.00'	8.50°	93.50°	63'	6538.94'	586.76'	-4.07'	586.76'	586.77'	90.40°	0.65°
78	6646.00'	8.00°	94.40°	64'	6602.27'	595.92'	-4.70'	595.92'	595.94'	90.45°	0.81°

Srv. No.	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (deg/100 ')
							+N / -S (ft)	+E / -W (ft)	Distance (ft)	Azimuth (deg)	
79	6708.00'	8.00°	96.40°	62'	6663.67'	604.51'	-5.52'	604.51'	604.53'	90.52°	0.45°
80	6771.00'	7.80°	92.20°	63'	6726.07'	613.13'	-6.17'	613.13'	613.17'	90.58°	0.97°
81	6834.00'	8.10°	91.00°	63'	6788.47'	621.84'	-6.41'	621.84'	621.88'	90.59°	0.54°
82	6896.00'	8.30°	92.00°	62'	6849.83'	630.68'	-6.64'	630.68'	630.72'	90.60°	0.40°
83	6959.00'	8.20°	92.70°	63'	6912.18'	639.72'	-7.01'	639.72'	639.75'	90.63°	0.22°
84	7021.00'	8.40°	89.20°	62'	6973.53'	648.66'	-7.16'	648.66'	648.70'	90.63°	0.88°
85	7085.00'	8.40°	91.10°	64'	7036.85'	658.01'	-7.18'	658.01'	658.05'	90.63°	0.43°
86	7147.00'	8.70°	90.90°	62'	7098.16'	667.23'	-7.34'	667.23'	667.27'	90.63°	0.49°
87	7211.00'	8.40°	87.50°	64'	7161.45'	676.74'	-7.22'	676.74'	676.77'	90.61°	0.92°
88	7274.00'	8.40°	91.10°	63'	7223.77'	685.93'	-7.10'	685.93'	685.97'	90.59°	0.83°
89	7338.00'	8.10°	88.10°	64'	7287.11'	695.11'	-7.04'	695.11'	695.15'	90.58°	0.82°
90	7401.00'	9.00°	89.30°	63'	7349.41'	704.48'	-6.84'	704.48'	704.51'	90.56°	1.46°
91	7463.00'	8.50°	88.70°	62'	7410.69'	713.91'	-6.67'	713.91'	713.94'	90.54°	0.82°
92	7526.00'	8.60°	89.60°	63'	7472.99'	723.27'	-6.53'	723.27'	723.30'	90.52°	0.27°
93	7590.00'	8.20°	91.60°	64'	7536.30'	732.62'	-6.63'	732.62'	732.65'	90.52°	0.77°
94	7653.00'	8.20°	92.80°	63'	7598.66'	741.60'	-6.97'	741.60'	741.63'	90.54°	0.27°
95	7716.00'	9.00°	85.80°	63'	7660.95'	751.00'	-6.83'	751.00'	751.03'	90.52°	2.09°
96	7774.00'	8.60°	81.30°	58'	7718.27'	759.81'	-5.84'	759.81'	759.83'	90.44°	1.37°
97	7842.00'	8.70°	80.40°	68'	7785.49'	769.91'	-4.22'	769.91'	769.92'	90.31°	0.25°
98	7905.00'	8.20°	82.50°	63'	7847.81'	779.06'	-2.84'	779.06'	779.07'	90.21°	0.93°
99	7961.00'	8.10°	79.90°	56'	7903.24'	786.90'	-1.62'	786.90'	786.91'	90.12°	0.68°
100	8024.00'	8.40°	88.80°	63'	7965.59'	795.87'	-0.75'	795.87'	795.87'	90.05°	2.08°
101	8087.00'	8.60°	90.10°	63'	8027.90'	805.19'	-0.66'	805.19'	805.19'	90.05°	0.44°
102	8150.00'	8.60°	93.50°	63'	8090.19'	814.60'	-0.96'	814.60'	814.60'	90.07°	0.81°
103	8214.00'	8.40°	93.90°	64'	8153.49'	824.04'	-1.57'	824.04'	824.04'	90.11°	0.33°
104	8277.00'	8.70°	97.20°	63'	8215.79'	833.36'	-2.48'	833.36'	833.36'	90.17°	0.91°
105	8338.00'	8.50°	97.70°	61'	8276.10'	842.40'	-3.66'	842.40'	842.41'	90.25°	0.35°
106	8402.00'	8.70°	93.30°	64'	8339.39'	851.92'	-4.57'	851.92'	851.93'	90.31°	1.07°
107	8466.00'	8.90°	95.50°	64'	8402.63'	861.68'	-5.32'	861.68'	861.70'	90.35°	0.61°
108	8528.00'	8.40°	93.50°	62'	8463.93'	870.97'	-6.06'	870.97'	871.00'	90.40°	0.94°
109	8591.00'	8.50°	93.60°	63'	8526.24'	880.21'	-6.63'	880.21'	880.24'	90.43°	0.16°
110	8652.00'	8.30°	92.50°	61'	8586.59'	889.11'	-7.11'	889.11'	889.14'	90.46°	0.42°
111	8715.00'	8.60°	91.80°	63'	8648.91'	898.36'	-7.46'	898.36'	898.39'	90.48°	0.50°
112	8779.00'	8.20°	91.80°	64'	8712.22'	907.71'	-7.75'	907.71'	907.74'	90.49°	0.63°
113	8852.00'	8.00°	89.20°	73'	8784.49'	917.99'	-7.84'	917.99'	918.02'	90.49°	0.57°
114	8916.00'	7.90°	87.90°	64'	8847.88'	926.84'	-7.62'	926.84'	926.87'	90.47°	0.32°
115	8980.00'	7.90°	89.90°	64'	8911.27'	935.63'	-7.45'	935.63'	935.66'	90.46°	0.43°
116	9044.00'	8.10°	88.00°	64'	8974.65'	944.54'	-7.28'	944.54'	944.57'	90.44°	0.52°
117	9108.00'	8.40°	87.20°	64'	9037.98'	953.71'	-6.90'	953.71'	953.74'	90.41°	0.50°
118	9171.00'	8.70°	85.30°	63'	9100.28'	963.06'	-6.28'	963.06'	963.08'	90.37°	0.65°
119	9233.00'	8.90°	86.20°	62'	9161.55'	972.52'	-5.58'	972.52'	972.53'	90.33°	0.39°
120	9298.00'	9.10°	85.50°	65'	9225.75'	982.66'	-4.84'	982.66'	982.67'	90.28°	0.35°
121	9361.00'	9.00°	85.20°	63'	9287.97'	992.53'	-4.04'	992.53'	992.54'	90.23°	0.18°
122	9424.00'	8.80°	88.40°	63'	9350.21'	1002.26'	-3.49'	1002.26'	1002.27'	90.20°	0.85°
123	9488.00'	8.40°	89.70°	64'	9413.49'	1011.83'	-3.33'	1011.83'	1011.84'	90.19°	0.69°
124	9552.00'	7.90°	90.30°	64'	9476.84'	1020.90'	-3.33'	1020.90'	1020.91'	90.19°	0.79°
125	9616.00'	8.10°	87.10°	64'	9540.22'	1029.80'	-3.13'	1029.80'	1029.81'	90.17°	0.76°
126	9679.00'	8.30°	87.10°	63'	9602.58'	1038.78'	-2.67'	1038.78'	1038.78'	90.15°	0.32°
127	9743.00'	7.90°	88.60°	64'	9665.94'	1047.79'	-2.33'	1047.79'	1047.79'	90.13°	0.71°
128	9807.00'	8.00°	90.70°	64'	9729.32'	1056.64'	-2.28'	1056.64'	1056.64'	90.12°	0.48°
129	9980.00'	8.00°	92.50°	173'	9900.64'	1080.70'	-2.95'	1080.70'	1080.71'	90.16°	0.14°