

EOG Resources, Inc.

Weld County, CO
Sec. 2-T11N-R63W
Crittter Creek 01-02H

Plan #1

Survey: Sperry MWD Survey

Sperry Drilling Services Standard Report

07 July, 2010

Well Coordinates: 593,292.84 N, 2,304,592.19 E (40° 57' 24.41" N, 104° 23' 50.27" W)
Ground Level: 5,297.00 ft

Local Coordinate Origin:	Centered on Well Critttr Creek 01-02H
Viewing Datum:	RKB 25' @ 5322.00ft (True 30)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom
Geodetic Scale Factor Applied	
Version: 2003.16 Build: 431	

HALLIBURTON

Survey Report for Critter Creek 01-02H - Sperry MWD Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,435.00	0.00	0.00	1,435.00	0.00	0.00	0.00	0.00
1,496.00	0.35	355.93	1,496.00	0.19	-0.01	-0.18	0.57
1,814.00	0.15	327.52	1,814.00	1.51	-0.31	-1.52	0.07
2,100.00	0.23	30.95	2,100.00	2.31	-0.21	-2.26	0.07
2,387.00	0.37	74.09	2,386.99	3.06	0.98	-2.58	0.09
2,673.00	0.26	266.14	2,672.99	3.27	1.22	-2.70	0.22
2,957.00	0.11	246.93	2,956.99	3.12	0.32	-2.85	0.06
3,243.00	0.17	216.22	3,242.99	2.67	-0.18	-2.59	0.03
3,528.00	0.22	15.84	3,527.99	2.86	-0.28	-2.79	0.13
3,813.00	0.20	69.94	3,812.99	3.55	0.34	-3.26	0.07
4,098.00	0.49	1.25	4,097.98	4.94	0.83	-4.41	0.16
4,383.00	0.79	17.38	4,382.96	8.04	1.44	-7.14	0.12
4,668.00	0.75	33.52	4,667.94	11.47	3.06	-9.87	0.08
4,951.00	0.22	45.16	4,950.93	13.39	4.47	-11.24	0.19
5,236.00	0.98	115.11	5,235.91	12.74	7.06	-9.79	0.33
5,520.00	0.71	73.64	5,519.88	12.21	10.95	-8.03	0.23
5,804.00	0.78	13.98	5,803.86	14.58	13.11	-9.58	0.26
6,088.00	1.29	14.22	6,087.81	19.56	14.36	-13.88	0.18
6,372.00	0.72	359.59	6,371.77	24.44	15.13	-18.25	0.22
6,658.00	0.29	306.04	6,657.76	26.66	14.53	-20.55	0.21
6,944.00	0.04	205.22	6,943.76	27.00	13.90	-21.07	0.10
6,996.00	0.33	320.73	6,995.76	27.10	13.80	-21.20	0.67
7,006.00	0.10	310.68	7,005.76	27.13	13.78	-21.23	2.32
7,038.00	0.23	79.47	7,037.76	27.16	13.82	-21.25	0.95
7,070.00	4.59	162.57	7,069.72	25.94	14.27	-19.96	14.28
7,101.00	9.08	163.02	7,100.50	22.42	15.35	-16.27	14.48
7,133.00	13.51	164.49	7,131.87	16.40	17.09	-10.01	13.87
7,165.00	17.87	164.44	7,162.67	8.06	19.41	-1.37	13.63
7,197.00	21.07	166.32	7,192.83	-2.26	22.09	9.26	10.19
7,228.00	25.42	164.74	7,221.31	-14.10	25.16	21.46	14.17
7,260.00	29.14	164.08	7,249.75	-28.22	29.10	36.10	11.66
7,291.00	32.60	161.11	7,276.35	-43.38	33.88	51.99	12.19
7,323.00	35.49	161.92	7,302.87	-60.37	39.55	69.90	9.14
7,355.00	38.82	161.60	7,328.37	-78.73	45.60	89.23	10.42
7,387.00	42.32	162.46	7,352.67	-98.52	52.02	110.03	11.08
7,418.00	46.13	163.29	7,374.88	-119.18	58.38	131.64	12.43
7,450.00	49.98	163.81	7,396.27	-142.01	65.11	155.42	12.09
7,482.00	53.91	162.88	7,415.99	-166.14	72.34	180.59	12.49
7,513.00	57.19	163.58	7,433.52	-190.61	79.71	206.14	10.74
7,545.00	60.49	164.24	7,450.08	-216.92	87.30	233.48	10.46
7,577.00	63.70	163.24	7,465.05	-244.06	95.22	261.73	10.40
7,608.00	67.10	162.78	7,477.96	-271.01	103.45	289.90	11.05
7,640.00	70.54	163.83	7,489.52	-299.59	112.02	319.71	11.18
7,672.00	74.52	164.16	7,499.12	-328.93	120.43	350.19	12.48
7,703.00	77.70	163.51	7,506.56	-357.83	128.81	380.25	10.46
7,735.00	80.96	162.79	7,512.49	-387.92	137.93	411.67	10.42
7,750.00	82.17	162.02	7,514.69	-402.06	142.41	426.51	9.53
7,809.00	86.01	162.77	7,520.76	-457.99	160.16	485.17	6.63

Interpolated AZ

Survey Report for Critter Creek 01-02H - Sperry MWD Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
7,841.00	86.34	163.17	7,522.89	-488.52	169.51	517.08	1.62
7,874.00	86.33	162.81	7,525.00	-520.01	179.14	550.00	1.09
7,906.00	87.72	162.58	7,526.66	-550.52	188.65	581.94	4.40
7,938.00	88.33	162.10	7,527.77	-580.99	198.35	613.92	2.43
7,970.00	89.60	162.05	7,528.35	-611.43	208.20	645.91	3.97
8,003.00	91.02	161.48	7,528.17	-642.77	218.52	678.90	4.64
8,035.00	91.20	161.37	7,527.55	-673.10	228.72	710.90	0.66
8,068.00	91.05	160.70	7,526.90	-704.30	239.44	743.89	2.08
8,100.00	91.11	160.41	7,526.30	-734.47	250.09	775.88	0.93
8,131.00	91.26	160.55	7,525.65	-763.69	260.44	806.87	0.66
8,163.00	91.20	160.16	7,524.97	-793.82	271.20	838.86	1.23
8,195.00	91.14	159.89	7,524.31	-823.88	282.13	870.85	0.86
8,227.00	91.29	161.16	7,523.64	-854.05	292.80	902.84	4.00
8,259.00	92.16	159.92	7,522.67	-884.20	303.45	934.82	4.73
8,291.00	92.65	160.22	7,521.33	-914.26	314.35	966.79	1.80
8,323.00	91.91	160.76	7,520.06	-944.40	325.03	998.76	2.86
8,355.00	91.94	160.78	7,518.98	-974.60	335.56	1,030.74	0.11
8,387.00	90.83	161.32	7,518.21	-1,004.85	345.95	1,062.73	3.86
8,419.00	90.71	161.26	7,517.78	-1,035.16	356.21	1,094.73	0.42
8,451.00	90.68	161.07	7,517.39	-1,065.44	366.54	1,126.73	0.60
8,483.00	90.80	161.24	7,516.98	-1,095.73	376.88	1,158.72	0.65
8,516.00	90.68	160.85	7,516.55	-1,126.93	387.60	1,191.72	1.24
8,548.00	90.46	160.76	7,516.23	-1,157.15	398.12	1,223.72	0.74
8,581.00	90.34	160.46	7,516.00	-1,188.28	409.07	1,256.72	0.98
8,612.00	90.22	160.38	7,515.85	-1,217.49	419.46	1,287.71	0.47
8,643.00	89.94	160.01	7,515.81	-1,246.65	429.97	1,318.71	1.50
8,674.00	90.52	158.97	7,515.68	-1,275.69	440.83	1,349.69	3.84
8,707.00	90.77	159.17	7,515.31	-1,306.51	452.62	1,382.67	0.97
8,738.00	91.30	160.03	7,514.75	-1,335.56	463.42	1,413.65	3.26
8,769.00	91.48	159.54	7,514.00	-1,364.64	474.13	1,444.63	1.68
8,801.00	92.22	160.61	7,512.97	-1,394.71	485.03	1,476.61	4.06
8,834.00	92.40	160.90	7,511.64	-1,425.84	495.90	1,509.58	1.03
8,865.00	91.54	161.55	7,510.57	-1,455.17	505.87	1,540.56	3.48
8,897.00	91.60	161.72	7,509.69	-1,485.53	515.94	1,572.55	0.56
8,929.00	90.28	161.48	7,509.17	-1,515.89	526.04	1,604.54	4.19
8,961.00	88.67	161.77	7,509.46	-1,546.26	536.13	1,636.54	5.11
8,994.00	88.52	161.93	7,510.27	-1,577.61	546.41	1,669.53	0.66
9,026.00	88.46	161.77	7,511.11	-1,608.00	556.37	1,701.52	0.53
9,058.00	88.36	161.87	7,512.00	-1,638.39	566.35	1,733.50	0.44
9,089.00	88.46	161.91	7,512.86	-1,667.85	575.98	1,764.49	0.35
9,120.00	88.24	161.76	7,513.76	-1,697.29	585.65	1,795.47	0.86
9,152.00	88.61	162.71	7,514.63	-1,727.75	595.41	1,827.45	3.18
9,183.00	88.77	163.43	7,515.34	-1,757.40	604.43	1,858.43	2.38
9,216.00	88.61	163.28	7,516.10	-1,789.01	613.88	1,891.40	0.66
9,248.00	88.80	163.74	7,516.82	-1,819.68	622.96	1,923.36	1.55
9,280.00	88.71	164.58	7,517.52	-1,850.46	631.69	1,955.31	2.64
9,313.00	88.58	164.32	7,518.30	-1,882.25	640.54	1,988.25	0.88
9,344.00	88.55	164.53	7,519.07	-1,912.10	648.86	2,019.19	0.68
9,376.00	89.38	163.89	7,519.65	-1,942.88	657.56	2,051.14	3.28
9,407.00	89.54	163.64	7,519.94	-1,972.65	666.23	2,082.11	0.96
9,439.00	90.28	162.64	7,519.99	-2,003.27	675.51	2,114.09	3.89

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
9,471.00	90.22	162.30	7,519.85	-2,033.78	685.15	2,146.08	1.08
9,503.00	90.00	162.39	7,519.79	-2,064.28	694.86	2,178.07	0.74
9,535.00	89.72	162.09	7,519.87	-2,094.75	704.62	2,210.07	1.28
9,567.00	90.15	161.61	7,519.91	-2,125.16	714.58	2,242.06	2.01
9,599.00	90.28	161.51	7,519.79	-2,155.52	724.71	2,274.06	0.51
9,631.00	91.27	161.46	7,519.35	-2,185.86	734.87	2,306.06	3.10
9,663.00	91.66	161.57	7,518.54	-2,216.20	745.01	2,338.05	1.27
9,696.00	91.64	161.55	7,517.59	-2,247.49	755.44	2,371.03	0.09
9,728.00	91.08	161.62	7,516.83	-2,277.84	765.55	2,403.02	1.76
9,760.00	91.20	162.34	7,516.19	-2,308.27	775.45	2,435.01	2.28
9,792.00	90.15	161.48	7,515.81	-2,338.68	785.38	2,467.01	4.24
9,823.00	89.82	160.51	7,515.82	-2,367.99	795.48	2,498.01	3.31
9,856.00	89.72	159.85	7,515.95	-2,399.04	806.67	2,531.00	2.02
9,887.00	89.63	159.77	7,516.13	-2,428.13	817.36	2,561.99	0.39
9,920.00	89.41	159.69	7,516.41	-2,459.09	828.80	2,594.98	0.71
9,951.00	89.35	160.01	7,516.74	-2,488.19	839.48	2,625.97	1.05
9,983.00	90.52	160.20	7,516.78	-2,518.28	850.36	2,657.97	3.70
10,015.00	90.92	161.37	7,516.38	-2,548.49	860.89	2,689.96	3.86
10,046.00	90.99	161.17	7,515.86	-2,577.84	870.85	2,720.96	0.68
10,077.00	90.86	161.01	7,515.36	-2,607.17	880.89	2,751.95	0.66
10,110.00	90.83	160.37	7,514.87	-2,638.31	891.80	2,784.95	1.94
10,142.00	90.68	160.68	7,514.45	-2,668.47	902.47	2,816.94	1.08
10,174.00	90.62	160.92	7,514.09	-2,698.69	913.00	2,848.94	0.77
10,207.00	90.55	161.16	7,513.75	-2,729.90	923.72	2,881.94	0.76
10,239.00	90.52	160.88	7,513.45	-2,760.16	934.12	2,913.94	0.88
10,272.00	90.31	161.29	7,513.21	-2,791.38	944.82	2,946.94	1.40
10,303.00	90.18	161.06	7,513.08	-2,820.72	954.82	2,977.94	0.85
10,336.00	90.25	160.96	7,512.96	-2,851.92	965.56	3,010.93	0.37
10,368.00	90.31	160.74	7,512.80	-2,882.15	976.06	3,042.93	0.71
10,401.00	90.25	160.74	7,512.64	-2,913.30	986.94	3,075.93	0.18
10,433.00	90.18	160.63	7,512.52	-2,943.50	997.53	3,107.93	0.41
10,465.00	90.18	160.64	7,512.42	-2,973.69	1,008.14	3,139.93	0.03
10,498.00	90.12	160.40	7,512.33	-3,004.80	1,019.14	3,172.93	0.75
10,530.00	90.06	160.32	7,512.28	-3,034.94	1,029.90	3,204.92	0.31
10,562.00	89.88	160.12	7,512.30	-3,065.05	1,040.73	3,236.92	0.84
10,593.00	89.69	160.21	7,512.41	-3,094.21	1,051.25	3,267.91	0.68
10,625.00	89.57	160.36	7,512.62	-3,124.34	1,062.04	3,299.91	0.60
10,657.00	90.49	161.37	7,512.60	-3,154.57	1,072.53	3,331.91	4.27
10,689.00	90.52	161.23	7,512.32	-3,184.88	1,082.79	3,363.91	0.45
10,721.00	90.43	161.32	7,512.06	-3,215.18	1,093.06	3,395.91	0.40
10,754.00	90.37	161.26	7,511.83	-3,246.44	1,103.65	3,428.90	0.26
10,786.00	90.43	161.68	7,511.60	-3,276.78	1,113.82	3,460.90	1.33
10,818.00	90.37	161.49	7,511.38	-3,307.14	1,123.93	3,492.90	0.62
10,850.00	90.28	161.34	7,511.20	-3,337.47	1,134.12	3,524.90	0.55
10,882.00	90.43	161.29	7,511.00	-3,367.78	1,144.38	3,556.90	0.49
10,915.00	90.34	161.01	7,510.78	-3,399.01	1,155.04	3,589.90	0.89
10,946.00	90.46	161.06	7,510.56	-3,428.33	1,165.11	3,620.90	0.42
10,978.00	90.43	160.47	7,510.31	-3,458.54	1,175.65	3,652.90	1.85
11,011.00	90.34	160.43	7,510.09	-3,489.64	1,186.70	3,685.89	0.30
11,042.00	90.31	160.25	7,509.91	-3,518.83	1,197.13	3,716.89	0.59

Survey Report for Critter Creek 01-02H - Sperry MWD Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
11,075.00	90.40	159.98	7,509.71	-3,549.86	1,208.35	3,749.88	0.86
11,107.00	90.37	159.96	7,509.50	-3,579.92	1,219.31	3,781.88	0.11
11,139.00	90.34	159.76	7,509.30	-3,609.97	1,230.33	3,813.87	0.63
11,171.00	89.29	160.65	7,509.40	-3,640.08	1,241.16	3,845.86	4.30
11,204.00	89.17	161.00	7,509.84	-3,671.24	1,252.00	3,878.86	1.12
11,236.00	89.11	160.54	7,510.32	-3,701.45	1,262.54	3,910.85	1.45
11,269.00	89.63	161.08	7,510.69	-3,732.62	1,273.39	3,943.85	2.27
11,301.00	89.63	161.19	7,510.89	-3,762.90	1,283.73	3,975.85	0.34
11,334.00	89.63	161.01	7,511.11	-3,794.12	1,294.42	4,008.85	0.55
11,366.00	89.72	161.12	7,511.29	-3,824.39	1,304.81	4,040.85	0.44
11,398.00	89.78	161.41	7,511.43	-3,854.69	1,315.09	4,072.85	0.93
11,429.00	89.66	161.33	7,511.58	-3,884.07	1,324.99	4,103.85	0.47
11,461.00	89.82	161.54	7,511.72	-3,914.40	1,335.18	4,135.85	0.83
11,512.00	89.82	161.54	7,511.88	-3,962.78	1,351.32	4,186.84	0.00
Projection to Bit							

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,809.00	7,520.76	-457.99	160.16	Interpolated AZ
11,512.00	7,511.88	-3,962.78	1,351.32	Projection to Bit

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/_S (ft)	+E/-W (ft)	
Target	Critter Creek 01-02H Plan #1 BH Tgt	161.19	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
1,435.00	11,512.00	Sperry MWD Survey	MWD

Survey Report for Critter Creek 01-02H - Sperry MWD Survey**Targets**

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Critter Creek 01-02H P - survey misses target center by 45.86ft at 11512.00ft MD (7511.88 TVD, -3962.78 N, 1351.32 E) - Point	0.00	0.00	7,528.00	-4,003.75	1,364.15	589,306.23	2,306,006.07	40° 56' 44.848 N	104° 23' 32.491 W
Critter Creek 01-02H N - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H V - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H S - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H S - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H N - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H E - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H E - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W
Critter Creek 01-02H V - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	593,292.84	2,304,592.19	40° 57' 24.409 N	104° 23' 50.267 W

North Reference Sheet for Sec. 2-T11N-R63W - Critter Creek 01-02H - Plan #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to RKB 25' @ 5322.00ft (True 30). Northing and Easting are relative to Critter Creek 01-02H

Coordinate System is US State Plane 1927 (Exact solution), Colorado North 501 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is 105° 30' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:40° 47' 0.000 N°

False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 1.00003275

Grid Coordinates of Well: 593,292.84 ft N, 2,304,592.19 ft E

Geographical Coordinates of Well: 40° 57' 24.41" N, 104° 23' 50.27" W

Grid Convergence at Surface is: 0.71°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,512.00ft
the Bottom Hole Displacement is 4,186.84ft in the Direction of 161.17° (True).

Magnetic Convergence at surface is: -8.08° (30 June 2010, , BGGM2010)

