

EOG Resources, Inc.

Weld County, CO
Sec. 21-T11N-R63W
Crittter Creek 17-21H

Plan #2 - Sidetrack #1

Survey: Sperry MWD Survey (Vertical Wellbore and Build)

Sperry Drilling Services Standard Report

25 September, 2010

Well Coordinates: 573,241.63 N, 2,295,878.89 E (40° 54' 07.36" N, 104° 25' 46.97" W)
Ground Level: 5,229.00 ft

Local Coordinate Origin:	Centered on Well Critttr Creek 17-21H
Viewing Datum:	RKB 22' @ 5251.00ft (True 35)
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 17-21H - Sperry MWD Survey (Vertical Wellbore and Build)

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
1,370.00	0.00	0.00	1,370.00	0.00	0.00	0.00	0.00
1,380.00	0.79	93.05	1,380.00	0.00	0.07	-0.05	7.90
1,661.00	0.84	115.45	1,660.97	-0.99	3.86	-3.44	0.11
1,946.00	0.95	96.25	1,945.94	-2.15	8.10	-7.25	0.11
2,229.00	0.83	90.87	2,228.90	-2.43	12.48	-10.56	0.05
2,515.00	0.74	86.20	2,514.88	-2.34	16.39	-13.27	0.04
2,797.00	0.77	110.17	2,796.85	-2.88	19.99	-16.19	0.11
3,081.00	0.79	103.51	3,080.83	-3.99	23.68	-19.60	0.03
3,365.00	0.57	334.25	3,364.82	-3.18	24.97	-19.94	0.43
3,646.00	0.56	305.54	3,645.80	-1.12	23.25	-17.27	0.10
3,931.00	0.58	294.03	3,930.79	0.28	20.80	-14.54	0.04
4,216.00	0.72	134.82	4,215.78	-0.40	20.75	-14.99	0.45
4,501.00	0.42	93.80	4,500.77	-1.73	23.06	-17.56	0.17
4,784.00	0.53	101.65	4,783.76	-2.06	25.38	-19.44	0.05
5,069.00	0.31	165.68	5,068.75	-3.07	26.86	-21.21	0.17
5,350.00	0.59	330.39	5,349.75	-2.55	26.34	-20.46	0.32
5,635.00	0.15	286.91	5,634.74	-1.17	25.25	-18.72	0.17
5,920.00	0.16	267.41	5,919.74	-1.08	24.50	-18.12	0.02
6,204.00	0.16	223.63	6,203.74	-1.38	23.83	-17.86	0.04
6,298.00	0.22	221.43	6,297.74	-1.61	23.62	-17.88	0.06
6,393.00	0.26	219.13	6,392.74	-1.92	23.36	-17.91	0.04
6,678.00	0.61	322.53	6,677.73	-1.21	22.03	-16.47	0.25
6,772.00	0.85	324.73	6,771.73	-0.25	21.32	-15.29	0.26
6,802.00	0.96	344.17	6,801.72	0.18	21.13	-14.85	1.08
6,834.00	3.25	303.62	6,833.70	0.94	20.30	-13.73	8.11
6,865.00	8.33	301.75	6,864.53	2.60	17.66	-10.67	16.40
6,896.00	13.60	303.49	6,894.96	5.80	12.70	-4.91	17.03
6,928.00	17.36	305.84	6,925.79	10.67	5.69	3.50	11.91
6,959.00	19.77	306.42	6,955.17	16.49	-2.28	13.25	7.80
6,991.00	22.03	305.37	6,985.07	23.18	-11.53	24.52	7.16
7,022.00	25.63	303.72	7,013.42	30.27	-21.85	36.84	11.81
7,054.00	29.52	303.22	7,041.78	38.44	-34.20	51.36	12.18
7,085.00	32.40	304.07	7,068.36	47.28	-47.48	67.00	9.40
7,117.00	34.90	305.85	7,095.00	57.44	-62.00	84.46	8.40
7,149.00	37.09	304.79	7,120.89	68.31	-77.35	103.01	7.12
7,181.00	39.97	302.69	7,145.92	79.37	-93.92	122.56	9.88
7,212.00	43.06	302.64	7,169.13	90.46	-111.22	142.64	9.97
7,243.00	47.38	302.59	7,190.96	102.31	-129.75	164.14	13.94
7,274.00	51.97	302.00	7,211.01	114.93	-149.73	187.20	14.88
7,305.00	56.42	302.42	7,229.14	128.33	-170.99	211.72	14.40
7,336.00	59.61	302.89	7,245.56	142.52	-193.12	237.42	10.37
7,368.00	61.94	304.16	7,261.19	157.95	-216.40	264.80	8.06
7,400.00	64.19	304.16	7,275.68	173.96	-240.01	292.83	7.03
7,432.00	67.84	302.81	7,288.69	190.09	-264.39	321.48	12.04
7,463.00	71.72	302.16	7,299.40	205.71	-288.92	349.89	12.67
7,495.00	76.58	302.52	7,308.14	222.17	-314.92	379.93	15.23
7,527.00	79.39	303.55	7,314.80	239.23	-341.16	410.56	9.33
7,558.00	82.57	304.55	7,319.66	256.37	-366.52	440.63	10.74
7,566.00	83.22	304.60	7,320.65	260.88	-373.06	448.44	8.15

Survey Report for Critter Creek 17-21H - Sperry MWD Survey (Vertical Wellbore and Build)

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
7,620.00	87.42	304.60	7,325.05	291.43	-417.35	501.38	7.78

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (ft)	Origin +E/-W (ft)	Start TVD (ft)
Target	Critter Creek 17-21H Plan #2 BH Tgt	314.87	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
1,370.00	6,427.00	Sperry MWD Survey (Vertical Wellbore and Build)	MWD
6,459.00	13,000.00	Sperry MWD Survey	MWD

Survey Report for Critter Creek 17-21H - Sperry MWD Survey (Vertical Wellbore and Build)**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 17-21H S - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H S - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H E - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H P - survey misses target center by 5389.74ft at 7620.00ft MD (7325.05 TVD, 291.43 N, -417.35 E) - Point	0.00	0.00	7,327.00	4,155.83	-4,174.44	577,346.86	2,291,654.51	40° 54' 48.420 N	104° 26' 41.340 W
Critter Creek 17-21H E - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H N - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H V - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H N - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H V - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	573,241.63	2,295,878.89	40° 54' 7.360 N	104° 25' 46.970 W
Critter Creek 17-21H P - survey misses target center by 2087.98ft at 7620.00ft MD (7325.05 TVD, 291.43 N, -417.35 E) - Point	0.00	0.00	7,327.00	1,500.00	-2,120.00	574,715.96	2,293,740.90	40° 54' 22.180 N	104° 26' 14.579 W

North Reference Sheet for Sec. 21-T11N-R63W - Critter Creek 17-21H - Plan #2 - Sidetrack #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 22' @ 5251.00ft (True 35). Northing and Easting are relative to Critter Creek 17-21H

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: 1.00002142

Grid Coordinates of Well: 573,241.63 ft N, 2,295,878.89 ft E

Geographical Coordinates of Well: 40° 54' 07.36" N, 104° 25' 46.97" W

Grid Convergence at Surface is: 0.69°

Based upon Minimum Curvature type calculations, at a Measured Depth of 7,620.00ft the Bottom Hole Displacement is 509.03ft in the Direction of 304.93° (True).

Magnetic Convergence at surface is: -8.09° (31 August 2010, , BGGM2010)

