

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 34-T3N-R66W

Rattler 35C-3HZ

Plan A Rev 0

Plan: Plan A Rev 0 Permit

Sperry Drilling Services

Proposal Report

25 October, 2012

Well Coordinates: 1,307,411.82 N, 3,204,968.30 E (40° 10' 29.69" N, 104° 45' 59.34" W)

Ground Level: 4,990.00 ft

Local Coordinate Origin:

Centered on Well Rattler 35C-3HZ

Viewing Datum:

RKB=17 @ 5007.00ft (Drilling Rig)

TVDs to System:

N

North Reference:

True

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 43I

HALLIBURTON

Project: Weld County, CO (NAD 83)
Site: Sec. 34-T3N-R66W
Well: Rattler 35C-3HZ
Wellbore: Plan A Rev 0
Design: Plan A Rev 0 Permit

Anadarko Petroleum Corp.

HALLIBURTON
Sperry Drilling

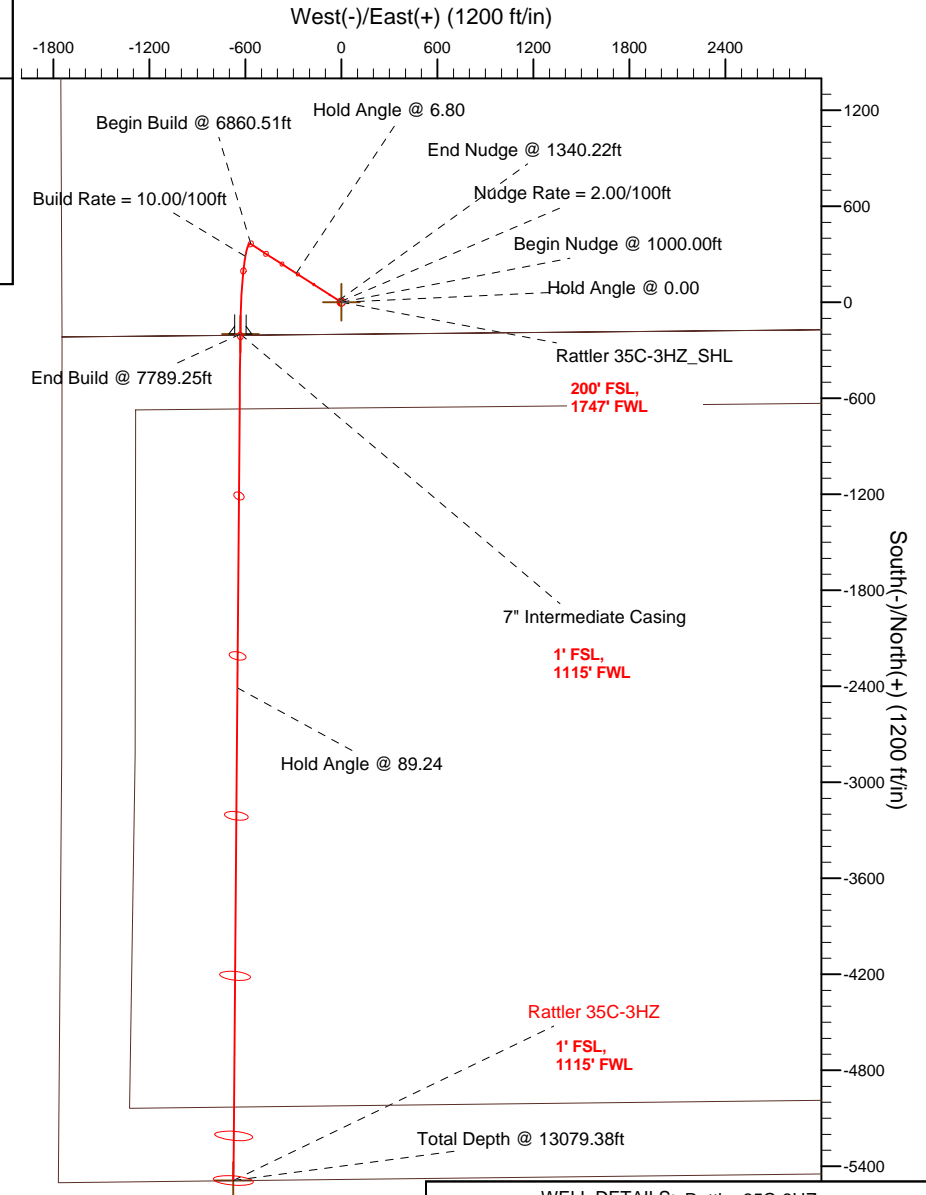
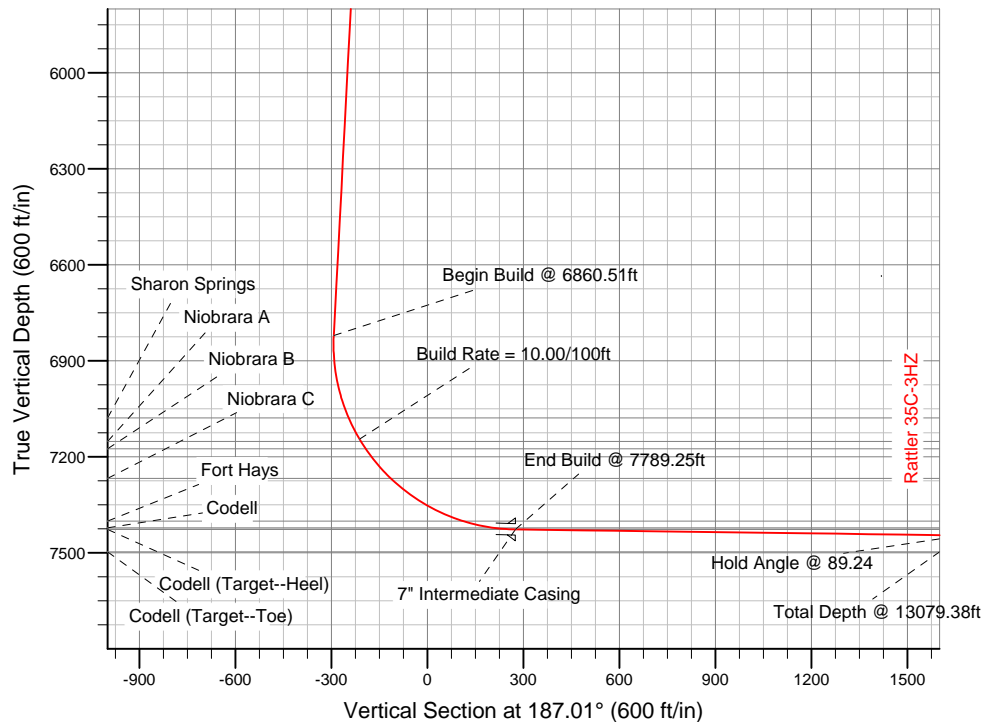
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	1340.22	6.80	302.75	1339.42	10.92	-16.97	2.00	302.75	-8.76	
4	6860.51	6.80	302.75	6820.83	364.75	-567.04	0.00	0.00	-292.78	
5	7789.25	89.24	180.47	7427.00	-199.00	-632.00	10.00	-122.18	274.69	Rattler 35C-3HZ_Casing Point
6	13079.38	89.24	180.47	7497.00	-5488.49	-675.29	0.00	0.00	5529.87	Rattler 35C-3HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Rattler 35C-3HZ_SHL	0.00	0.00	0.00	40.174914	-104.766482	Point
Rattler 35C-3HZ_Casing Point	7427.00	-199.00	-632.00	40.174368	-104.768744	Point
Rattler 35C-3HZ_BHL	7497.00	-5488.49	-675.29	40.159848	-104.768898	Point

Target Line:
7423.45' TVDkb @ 0' VS Drilling 89.24°



WELL DETAILS: Rattler 35C-3HZ

Ground Level: 4990.00 RKB=17 @ 5007.00ft (Drilling Rig)

Plan: Plan A Rev 0 Permit (Rattler 35C-3HZ/Plan A Rev 0)

Created By: Fred Hartmann Date: 10/25/2012
Reviewed: _____ Date: _____

Plan Report for Rattler 35C-3HZ - Plan A Rev 0 Permit

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hold Angle @ 0.00										
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 1000.00ft										
1,100.00	2.00	302.75	1,099.98	0.94	-1.47	-0.76	2.00	2.00	0.00	302.75
1,200.00	4.00	302.75	1,199.84	3.78	-5.87	-3.03	2.00	2.00	0.00	0.00
Nudge Rate = 2.00/100ft										
1,300.00	6.00	302.75	1,299.45	8.49	-13.20	-6.81	2.00	2.00	0.00	0.00
1,340.22	6.80	302.75	1,339.42	10.92	-16.97	-8.76	2.00	2.00	0.00	0.00
End Nudge @ 1340.22ft										
1,400.00	6.80	302.75	1,398.78	14.75	-22.93	-11.84	0.00	0.00	0.00	0.00
1,500.00	6.80	302.75	1,498.08	21.16	-32.89	-16.98	0.00	0.00	0.00	0.00
1,600.00	6.80	302.75	1,597.37	27.57	-42.86	-22.13	0.00	0.00	0.00	0.00
1,700.00	6.80	302.75	1,696.67	33.98	-52.82	-27.27	0.00	0.00	0.00	0.00
1,800.00	6.80	302.75	1,795.96	40.39	-62.79	-32.42	0.00	0.00	0.00	0.00
1,900.00	6.80	302.75	1,895.26	46.80	-72.75	-37.56	0.00	0.00	0.00	0.00
2,000.00	6.80	302.75	1,994.55	53.21	-82.71	-42.71	0.00	0.00	0.00	0.00
2,100.00	6.80	302.75	2,093.85	59.62	-92.68	-47.85	0.00	0.00	0.00	0.00
2,200.00	6.80	302.75	2,193.14	66.03	-102.64	-53.00	0.00	0.00	0.00	0.00
2,300.00	6.80	302.75	2,292.44	72.44	-112.61	-58.14	0.00	0.00	0.00	0.00
2,400.00	6.80	302.75	2,391.74	78.85	-122.57	-63.29	0.00	0.00	0.00	0.00
2,500.00	6.80	302.75	2,491.03	85.26	-132.54	-68.43	0.00	0.00	0.00	0.00
2,600.00	6.80	302.75	2,590.33	91.67	-142.50	-73.58	0.00	0.00	0.00	0.00
2,700.00	6.80	302.75	2,689.62	98.07	-152.47	-78.72	0.00	0.00	0.00	0.00
2,800.00	6.80	302.75	2,788.92	104.48	-162.43	-83.87	0.00	0.00	0.00	0.00
2,900.00	6.80	302.75	2,888.21	110.89	-172.39	-89.01	0.00	0.00	0.00	0.00
3,000.00	6.80	302.75	2,987.51	117.30	-182.36	-94.16	0.00	0.00	0.00	0.00
3,100.00	6.80	302.75	3,086.81	123.71	-192.32	-99.30	0.00	0.00	0.00	0.00
3,200.00	6.80	302.75	3,186.10	130.12	-202.29	-104.45	0.00	0.00	0.00	0.00
3,300.00	6.80	302.75	3,285.40	136.53	-212.25	-109.59	0.00	0.00	0.00	0.00
3,400.00	6.80	302.75	3,384.69	142.94	-222.22	-114.74	0.00	0.00	0.00	0.00
3,500.00	6.80	302.75	3,483.99	149.35	-232.18	-119.88	0.00	0.00	0.00	0.00
3,600.00	6.80	302.75	3,583.28	155.76	-242.15	-125.03	0.00	0.00	0.00	0.00
3,700.00	6.80	302.75	3,682.58	162.17	-252.11	-130.17	0.00	0.00	0.00	0.00
3,800.00	6.80	302.75	3,781.88	168.58	-262.08	-135.32	0.00	0.00	0.00	0.00
3,900.00	6.80	302.75	3,881.17	174.99	-272.04	-140.46	0.00	0.00	0.00	0.00
4,000.00	6.80	302.75	3,980.47	181.40	-282.00	-145.61	0.00	0.00	0.00	0.00
Hold Angle @ 6.80										
4,100.00	6.80	302.75	4,079.76	187.81	-291.97	-150.75	0.00	0.00	0.00	0.00
4,151.60	6.80	302.75	4,131.00	191.12	-297.11	-153.41	0.00	0.00	0.00	0.00
Parkman										
4,200.00	6.80	302.75	4,179.06	194.22	-301.93	-155.90	0.00	0.00	0.00	0.00
4,300.00	6.80	302.75	4,278.35	200.63	-311.90	-161.04	0.00	0.00	0.00	0.00
4,400.00	6.80	302.75	4,377.65	207.04	-321.86	-166.19	0.00	0.00	0.00	0.00
4,414.45	6.80	302.75	4,392.00	207.97	-323.30	-166.93	0.00	0.00	0.00	0.00
Sussex										
4,500.00	6.80	302.75	4,476.94	213.45	-331.83	-171.33	0.00	0.00	0.00	0.00
4,600.00	6.80	302.75	4,576.24	219.86	-341.79	-176.48	0.00	0.00	0.00	0.00

Plan Report for Rattler 35C-3HZ - Plan A Rev 0 Permit

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
4,700.00	6.80	302.75	4,675.54	226.27	-351.76	-181.62	0.00	0.00	0.00	0.00
4,800.00	6.80	302.75	4,774.83	232.68	-361.72	-186.77	0.00	0.00	0.00	0.00
4,900.00	6.80	302.75	4,874.13	239.09	-371.68	-191.91	0.00	0.00	0.00	0.00
5,000.00	6.80	302.75	4,973.42	245.50	-381.65	-197.06	0.00	0.00	0.00	0.00
5,100.00	6.80	302.75	5,072.72	251.91	-391.61	-202.20	0.00	0.00	0.00	0.00
5,200.00	6.80	302.75	5,172.01	258.32	-401.58	-207.35	0.00	0.00	0.00	0.00
5,300.00	6.80	302.75	5,271.31	264.73	-411.54	-212.49	0.00	0.00	0.00	0.00
5,400.00	6.80	302.75	5,370.61	271.14	-421.51	-217.64	0.00	0.00	0.00	0.00
5,500.00	6.80	302.75	5,469.90	277.55	-431.47	-222.78	0.00	0.00	0.00	0.00
5,600.00	6.80	302.75	5,569.20	283.96	-441.44	-227.93	0.00	0.00	0.00	0.00
5,700.00	6.80	302.75	5,668.49	290.37	-451.40	-233.07	0.00	0.00	0.00	0.00
5,800.00	6.80	302.75	5,767.79	296.78	-461.36	-238.21	0.00	0.00	0.00	0.00
5,900.00	6.80	302.75	5,867.08	303.19	-471.33	-243.36	0.00	0.00	0.00	0.00
6,000.00	6.80	302.75	5,966.38	309.60	-481.29	-248.50	0.00	0.00	0.00	0.00
6,100.00	6.80	302.75	6,065.67	316.01	-491.26	-253.65	0.00	0.00	0.00	0.00
6,200.00	6.80	302.75	6,164.97	322.42	-501.22	-258.79	0.00	0.00	0.00	0.00
6,300.00	6.80	302.75	6,264.27	328.83	-511.19	-263.94	0.00	0.00	0.00	0.00
6,400.00	6.80	302.75	6,363.56	335.24	-521.15	-269.08	0.00	0.00	0.00	0.00
6,500.00	6.80	302.75	6,462.86	341.64	-531.12	-274.23	0.00	0.00	0.00	0.00
6,600.00	6.80	302.75	6,562.15	348.05	-541.08	-279.37	0.00	0.00	0.00	0.00
6,700.00	6.80	302.75	6,661.45	354.46	-551.05	-284.52	0.00	0.00	0.00	0.00
6,800.00	6.80	302.75	6,760.74	360.87	-561.01	-289.66	0.00	0.00	0.00	0.00
6,860.51	6.80	302.75	6,820.83	364.75	-567.04	-292.78	0.00	0.00	0.00	0.00
Begin Build @ 6860.51ft										
6,900.00	5.76	267.27	6,860.09	365.92	-570.99	-293.46	10.00	-2.63	-89.84	-122.18
7,000.00	11.80	209.25	6,959.04	356.75	-581.02	-283.12	10.00	6.03	-58.02	-86.90
7,100.00	21.08	195.55	7,054.88	330.44	-590.87	-255.81	10.00	9.28	-13.70	-29.38
7,124.99	23.49	193.80	7,078.00	321.27	-593.26	-246.42	10.00	9.64	-6.99	-16.19
Sharon Springs										
7,200.00	30.80	190.13	7,144.71	287.80	-600.21	-212.35	10.00	9.75	-4.90	-14.57
Build Rate = 10.00/100ft										
7,208.53	31.64	189.81	7,152.00	283.44	-600.98	-207.93	10.00	9.81	-3.73	-11.29
Niobrara A										
7,235.95	34.34	188.88	7,175.00	268.71	-603.40	-193.02	10.00	9.83	-3.39	-11.02
Niobrara B										
7,300.00	40.65	187.13	7,225.79	230.12	-608.78	-154.06	10.00	9.86	-2.72	-10.24
7,356.79	46.27	185.93	7,267.00	191.33	-613.20	-115.01	10.00	9.89	-2.13	-8.86
Niobrara C										
7,400.00	50.55	185.15	7,295.67	159.17	-616.31	-82.72	10.00	9.91	-1.80	-7.98
7,500.00	60.48	183.66	7,352.23	77.09	-622.57	-0.48	10.00	9.93	-1.49	-7.46
7,600.00	70.42	182.45	7,393.73	-13.63	-627.38	90.14	10.00	9.94	-1.22	-6.62
7,622.99	72.70	182.19	7,401.00	-35.42	-628.26	111.87	10.00	9.94	-1.11	-6.11
Fort Hays										
7,700.00	80.36	181.37	7,418.92	-110.22	-630.58	186.40	10.00	9.95	-1.06	-6.03
7,720.55	82.41	181.16	7,422.00	-130.53	-631.03	206.61	10.00	9.95	-1.03	-5.84
Codell										
7,789.25	89.24	180.47	7,427.00	-199.00	-632.00	274.69	10.00	9.95	-1.01	-5.81
End Build @ 7789.25ft - Codell (Target-Heel) - 7" Intermediate Casing - Rattler 35C-3HZ_Casing Point										
7,800.00	89.24	180.47	7,427.14	-209.75	-632.09	285.37	0.00	0.00	0.00	-5.76
7,900.00	89.24	180.47	7,428.47	-309.74	-632.91	384.71	0.00	0.00	0.00	0.00
8,000.00	89.24	180.47	7,429.79	-409.72	-633.72	484.05	0.00	0.00	0.00	0.00
8,100.00	89.24	180.47	7,431.11	-509.71	-634.54	583.39	0.00	0.00	0.00	0.00
8,200.00	89.24	180.47	7,432.44	-609.70	-635.36	682.73	0.00	0.00	0.00	0.00
8,300.00	89.24	180.47	7,433.76	-709.69	-636.18	782.06	0.00	0.00	0.00	0.00
8,400.00	89.24	180.47	7,435.08	-809.68	-637.00	881.40	0.00	0.00	0.00	0.00
8,500.00	89.24	180.47	7,436.40	-909.66	-637.82	980.74	0.00	0.00	0.00	0.00
8,600.00	89.24	180.47	7,437.73	-1,009.65	-638.63	1,080.08	0.00	0.00	0.00	0.00
8,700.00	89.24	180.47	7,439.05	-1,109.64	-639.45	1,179.42	0.00	0.00	0.00	0.00
8,800.00	89.24	180.47	7,440.37	-1,209.63	-640.27	1,278.76	0.00	0.00	0.00	0.00

Plan Report for Rattler 35C-3HZ - Plan A Rev 0 Permit

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
8,900.00	89.24	180.47	7,441.70	-1,309.62	-641.09	1,378.10	0.00	0.00	0.00	0.00
9,000.00	89.24	180.47	7,443.02	-1,409.60	-641.91	1,477.44	0.00	0.00	0.00	0.00
9,100.00	89.24	180.47	7,444.34	-1,509.59	-642.73	1,576.78	0.00	0.00	0.00	0.00
9,200.00	89.24	180.47	7,445.67	-1,609.58	-643.55	1,676.12	0.00	0.00	0.00	0.00
9,300.00	89.24	180.47	7,446.99	-1,709.57	-644.36	1,775.46	0.00	0.00	0.00	0.00
9,400.00	89.24	180.47	7,448.31	-1,809.55	-645.18	1,874.80	0.00	0.00	0.00	0.00
9,500.00	89.24	180.47	7,449.64	-1,909.54	-646.00	1,974.14	0.00	0.00	0.00	0.00
9,600.00	89.24	180.47	7,450.96	-2,009.53	-646.82	2,073.48	0.00	0.00	0.00	0.00
9,700.00	89.24	180.47	7,452.28	-2,109.52	-647.64	2,172.82	0.00	0.00	0.00	0.00
9,800.00	89.24	180.47	7,453.61	-2,209.51	-648.46	2,272.16	0.00	0.00	0.00	0.00
9,900.00	89.24	180.47	7,454.93	-2,309.49	-649.27	2,371.50	0.00	0.00	0.00	0.00
10,000.00	89.24	180.47	7,456.25	-2,409.48	-650.09	2,470.84	0.00	0.00	0.00	0.00
Hold Angle @ 89.24										
10,100.00	89.24	180.47	7,457.58	-2,509.47	-650.91	2,570.18	0.00	0.00	0.00	0.00
10,200.00	89.24	180.47	7,458.90	-2,609.46	-651.73	2,669.52	0.00	0.00	0.00	0.00
10,300.00	89.24	180.47	7,460.22	-2,709.45	-652.55	2,768.85	0.00	0.00	0.00	0.00
10,400.00	89.24	180.47	7,461.55	-2,809.43	-653.37	2,868.19	0.00	0.00	0.00	0.00
10,500.00	89.24	180.47	7,462.87	-2,909.42	-654.18	2,967.53	0.00	0.00	0.00	0.00
10,600.00	89.24	180.47	7,464.19	-3,009.41	-655.00	3,066.87	0.00	0.00	0.00	0.00
10,700.00	89.24	180.47	7,465.52	-3,109.40	-655.82	3,166.21	0.00	0.00	0.00	0.00
10,800.00	89.24	180.47	7,466.84	-3,209.39	-656.64	3,265.55	0.00	0.00	0.00	0.00
10,900.00	89.24	180.47	7,468.16	-3,309.37	-657.46	3,364.89	0.00	0.00	0.00	0.00
11,000.00	89.24	180.47	7,469.49	-3,409.36	-658.28	3,464.23	0.00	0.00	0.00	0.00
11,100.00	89.24	180.47	7,470.81	-3,509.35	-659.09	3,563.57	0.00	0.00	0.00	0.00
11,200.00	89.24	180.47	7,472.13	-3,609.34	-659.91	3,662.91	0.00	0.00	0.00	0.00
11,300.00	89.24	180.47	7,473.45	-3,709.32	-660.73	3,762.25	0.00	0.00	0.00	0.00
11,400.00	89.24	180.47	7,474.78	-3,809.31	-661.55	3,861.59	0.00	0.00	0.00	0.00
11,500.00	89.24	180.47	7,476.10	-3,909.30	-662.37	3,960.93	0.00	0.00	0.00	0.00
11,600.00	89.24	180.47	7,477.42	-4,009.29	-663.19	4,060.27	0.00	0.00	0.00	0.00
11,700.00	89.24	180.47	7,478.75	-4,109.28	-664.00	4,159.61	0.00	0.00	0.00	0.00
11,800.00	89.24	180.47	7,480.07	-4,209.26	-664.82	4,258.95	0.00	0.00	0.00	0.00
11,900.00	89.24	180.47	7,481.39	-4,309.25	-665.64	4,358.29	0.00	0.00	0.00	0.00
12,000.00	89.24	180.47	7,482.72	-4,409.24	-666.46	4,457.63	0.00	0.00	0.00	0.00
12,100.00	89.24	180.47	7,484.04	-4,509.23	-667.28	4,556.97	0.00	0.00	0.00	0.00
12,200.00	89.24	180.47	7,485.36	-4,609.22	-668.10	4,656.31	0.00	0.00	0.00	0.00
12,300.00	89.24	180.47	7,486.69	-4,709.20	-668.91	4,755.64	0.00	0.00	0.00	0.00
12,400.00	89.24	180.47	7,488.01	-4,809.19	-669.73	4,854.98	0.00	0.00	0.00	0.00
12,500.00	89.24	180.47	7,489.33	-4,909.18	-670.55	4,954.32	0.00	0.00	0.00	0.00
12,600.00	89.24	180.47	7,490.66	-5,009.17	-671.37	5,053.66	0.00	0.00	0.00	0.00
12,700.00	89.24	180.47	7,491.98	-5,109.16	-672.19	5,153.00	0.00	0.00	0.00	0.00
12,800.00	89.24	180.47	7,493.30	-5,209.14	-673.01	5,252.34	0.00	0.00	0.00	0.00
12,900.00	89.24	180.47	7,494.63	-5,309.13	-673.83	5,351.68	0.00	0.00	0.00	0.00
13,000.00	89.24	180.47	7,495.95	-5,409.12	-674.64	5,451.02	0.00	0.00	0.00	0.00
13,079.38	89.24	180.47	7,497.00	-5,488.49	-675.29	5,529.87	0.00	0.00	0.00	0.00
Rattler 35C-3HZ_BHL										

Plan Report for Rattler 35C-3HZ - Plan A Rev 0 Permit**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.00	500.00	0.00	0.00	Hold Angle @ 0.00
1,000.00	1,000.00	0.00	0.00	Begin Nudge @ 1000.00ft
1,200.00	1,199.84	3.78	-5.87	Nudge Rate = 2.00/100ft
1,340.22	1,339.42	10.92	-16.97	End Nudge @ 1340.22ft
4,000.00	3,980.47	181.40	-282.00	Hold Angle @ 6.80
6,860.51	6,820.83	364.75	-567.04	Begin Build @ 6860.51ft
7,200.00	7,144.71	287.80	-600.21	Build Rate = 10.00/100ft
7,789.25	7,427.00	-199.00	-632.00	End Build @ 7789.25ft
10,000.00	7,456.25	-2,409.48	-650.09	Hold Angle @ 89.24
13,079.38	7,497.00	-5,488.49	-675.29	Total Depth @ 13079.38ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
Target	Rattler 35C-3HZ_BHL	187.01	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	7,789.25	Plan A Rev 0 Permit	MWD
7,789.25	13,079.38	Plan A Rev 0 Permit	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,789.25	7,427.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	7,497.00	Codell (Target--Toe)			
4,151.60	4,131.00	Parkman			
4,414.45	4,392.00	Sussex			
7,124.99	7,078.00	Sharon Springs			
7,208.53	7,152.00	Niobrara A			
7,235.95	7,175.00	Niobrara B			
7,356.79	7,267.00	Niobrara C			
7,622.99	7,401.00	Fort Hays			
7,720.55	7,422.00	Codell			
7,789.25	7,427.00	Codell (Target--Heel)			

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Rattler 35C-3HZ_SHL	0.00	0.00	0.00	Point
Rattler 35C-3HZ_BHL	7,497.00	-5,488.49	-675.29	Point
Rattler 35C-3HZ_Casing Point	7,427.00	-199.00	-632.00	Point

North Reference Sheet for Sec. 34-T3N-R66W - Rattler 35C-3HZ - Plan A Rev 0

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
Vertical Depths are relative to RKB=17 @ 5007.00ft (Drilling Rig). Northing and Easting are relative to Rattler 35C-3HZ
Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)
Central Meridian is -105.50°, Longitude Origin:0.000000°, Latitude Origin:40.783333°
False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 0.99995772

Grid Coordinates of Well: 1,307,411.82 ft N, 3,204,968.30 ft E
Geographical Coordinates of Well: 40° 10' 29.69" N, 104° 45' 59.34" W
Grid Convergence at Surface is: 0.47°

Based upon Minimum Curvature type calculations, at a Measured Depth of 13,079.38ft
the Bottom Hole Displacement is 5,529.87ft in the Direction of 187.01° (True).

Magnetic Convergence at surface is: -8.24° (25 October 2012, , BGGM2012)

