

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 34-T3N-R66W

Rattler 35N-3HZ

Plan C Rev 0

Plan: Plan C Rev 0 - PERMIT

Sperry Drilling Services

Proposal Report

23 April, 2013

Well Coordinates: 1,307,584.28 N, 3,205,425.43 E (40° 10' 31.36" N, 104° 45' 53.43" W)

Ground Level: 4,991.00 ft

Local Coordinate Origin:	Centered on Well Rattler 35N-3HZ
Viewing Datum:	RKB=17 @ 5008.00ft (Drilling Rig)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

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

Anadarko Petroleum Corp.

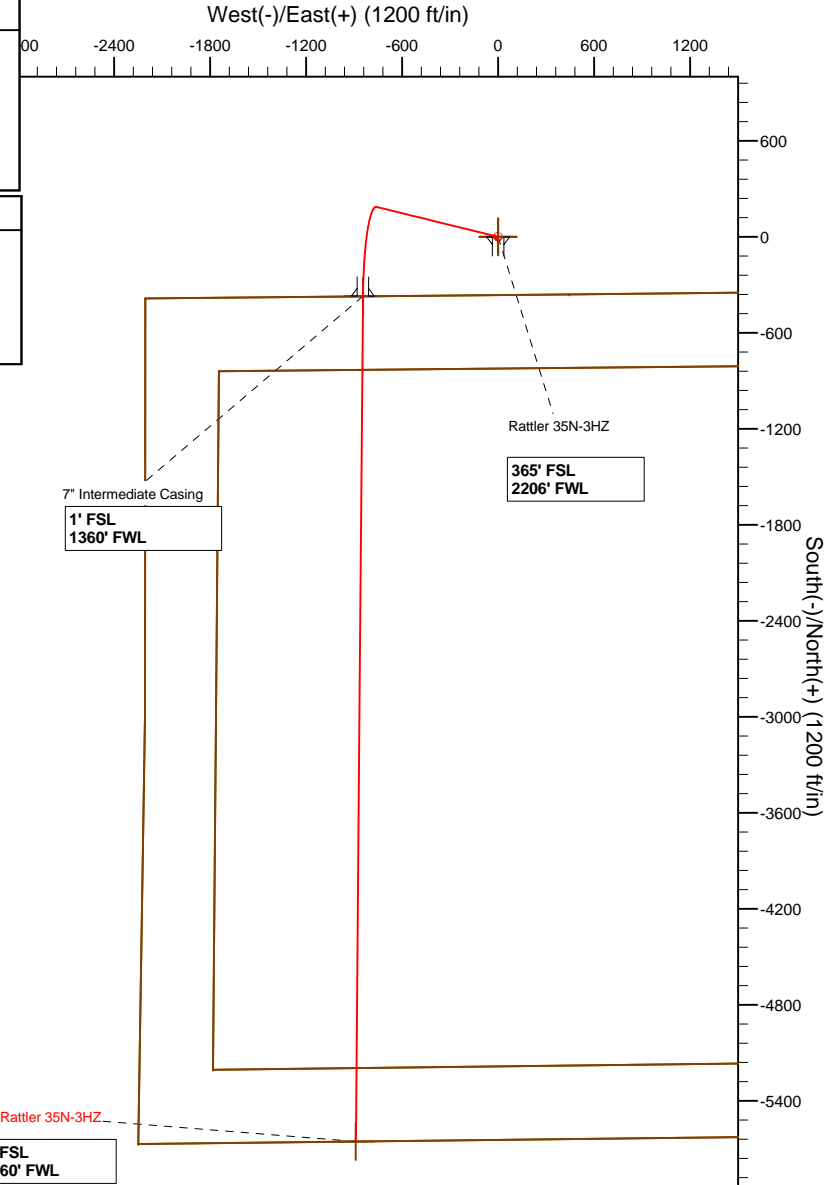
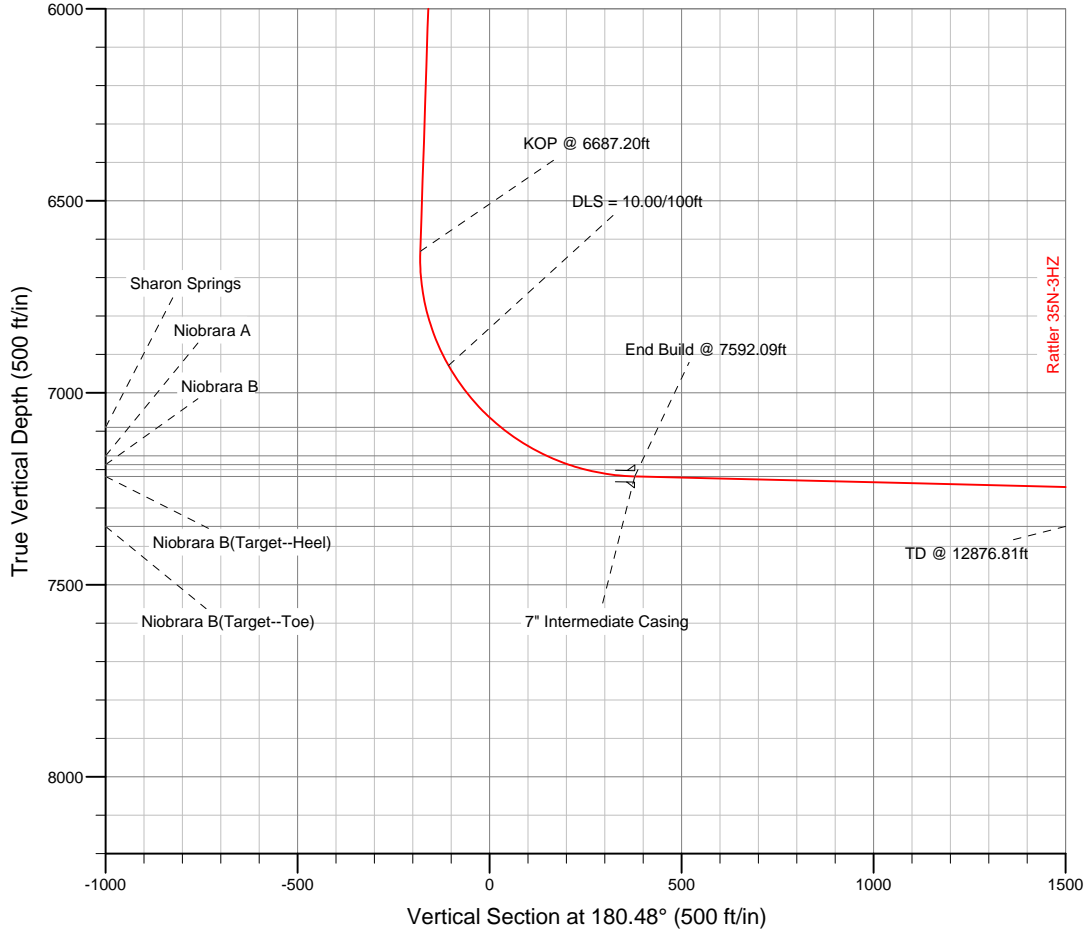


SECTION DETAILS

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	1410.07	8.20	283.81	1408.67	6.99	-28.45	2.00	283.81	-6.76	
4	6687.20	8.20	283.81	6631.83	186.69	-759.49	0.00	0.00	-180.32	
5	7592.09	88.59	180.48	7218.00	-371.30	-844.40	10.00	-103.39	378.36	Rattler 35N-3HZ PERMIT_CP
6	12876.81	88.59	180.48	7348.00	-5654.23	-888.84	0.00	0.00	5661.48	Rattler 35N-3HZ PERMIT_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Rattler 35N-3HZ PERMIT_SB	0.00	0.00	0.00	40.175377	-104.764841	Polygon
Rattler 35N-3HZ PERMIT_SHL	0.00	0.00	0.00	40.175377	-104.764841	Point
Rattler 35N-3HZ PERMIT_SL	0.00	0.00	0.00	40.175377	-104.764841	Polygon
Rattler 35N-3HZ PERMIT_CP	7218.00	-371.30	-844.40	40.174358	-104.767863	Point
Rattler 35N-3HZ PERMIT_BHL	7348.00	-5654.23	-888.84	40.159856	-104.768021	Point



WELL DETAILS: Rattler 35N-3HZ	
Ground Level:	4991.00
RKB=17 @ 5008.00ft (Drilling Rig)	
Plan: Plan C Rev 0 - PERMIT (Rattler 35N-3HZ/Plan C Rev 0)	
Created By: Fred Hartmann	Date: 04/19/2013
Reviewed: _____	Date: _____

Plan Report for Rattler 35N-3HZ - Plan C 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
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
9 5/8" Surface Casing										
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	283.81	1,099.98	0.42	-1.69	-0.40	2.00	2.00	0.00	283.81
1,200.00	4.00	283.81	1,199.84	1.67	-6.78	-1.61	2.00	2.00	0.00	0.00
1,300.00	6.00	283.81	1,299.45	3.75	-15.24	-3.62	2.00	2.00	0.00	0.00
1,400.00	8.00	283.81	1,398.70	6.66	-27.07	-6.43	2.00	2.00	0.00	0.00
1,410.07	8.20	283.81	1,408.67	6.99	-28.45	-6.76	2.00	2.00	0.00	0.00
End Nudge @ 1410.07ft										
1,500.00	8.20	283.81	1,497.68	10.06	-40.91	-9.71	0.00	0.00	0.00	0.00
1,600.00	8.20	283.81	1,596.66	13.46	-54.76	-13.00	0.00	0.00	0.00	0.00
1,700.00	8.20	283.81	1,695.64	16.87	-68.62	-16.29	0.00	0.00	0.00	0.00
1,800.00	8.20	283.81	1,794.61	20.27	-82.47	-19.58	0.00	0.00	0.00	0.00
1,900.00	8.20	283.81	1,893.59	23.68	-96.32	-22.87	0.00	0.00	0.00	0.00
2,000.00	8.20	283.81	1,992.57	27.08	-110.17	-26.16	0.00	0.00	0.00	0.00
2,100.00	8.20	283.81	2,091.54	30.49	-124.03	-29.45	0.00	0.00	0.00	0.00
2,200.00	8.20	283.81	2,190.52	33.89	-137.88	-32.74	0.00	0.00	0.00	0.00
2,300.00	8.20	283.81	2,289.50	37.30	-151.73	-36.03	0.00	0.00	0.00	0.00
2,400.00	8.20	283.81	2,388.48	40.70	-165.59	-39.31	0.00	0.00	0.00	0.00
2,500.00	8.20	283.81	2,487.45	44.11	-179.44	-42.60	0.00	0.00	0.00	0.00
2,600.00	8.20	283.81	2,586.43	47.51	-193.29	-45.89	0.00	0.00	0.00	0.00
2,700.00	8.20	283.81	2,685.41	50.92	-207.15	-49.18	0.00	0.00	0.00	0.00
2,800.00	8.20	283.81	2,784.39	54.32	-221.00	-52.47	0.00	0.00	0.00	0.00
2,900.00	8.20	283.81	2,883.36	57.73	-234.85	-55.76	0.00	0.00	0.00	0.00
3,000.00	8.20	283.81	2,982.34	61.13	-248.70	-59.05	0.00	0.00	0.00	0.00
3,100.00	8.20	283.81	3,081.32	64.54	-262.56	-62.34	0.00	0.00	0.00	0.00
3,200.00	8.20	283.81	3,180.29	67.95	-276.41	-65.63	0.00	0.00	0.00	0.00
3,300.00	8.20	283.81	3,279.27	71.35	-290.26	-68.92	0.00	0.00	0.00	0.00
3,400.00	8.20	283.81	3,378.25	74.76	-304.12	-72.21	0.00	0.00	0.00	0.00
3,500.00	8.20	283.81	3,477.23	78.16	-317.97	-75.49	0.00	0.00	0.00	0.00
3,600.00	8.20	283.81	3,576.20	81.57	-331.82	-78.78	0.00	0.00	0.00	0.00
3,700.00	8.20	283.81	3,675.18	84.97	-345.67	-82.07	0.00	0.00	0.00	0.00
3,800.00	8.20	283.81	3,774.16	88.38	-359.53	-85.36	0.00	0.00	0.00	0.00
3,900.00	8.20	283.81	3,873.14	91.78	-373.38	-88.65	0.00	0.00	0.00	0.00
4,000.00	8.20	283.81	3,972.11	95.19	-387.23	-91.94	0.00	0.00	0.00	0.00
4,100.00	8.20	283.81	4,071.09	98.59	-401.09	-95.23	0.00	0.00	0.00	0.00
4,172.65	8.20	283.81	4,143.00	101.07	-411.15	-97.62	0.00	0.00	0.00	0.00
Parkman										
4,200.00	8.20	283.81	4,170.07	102.00	-414.94	-98.52	0.00	0.00	0.00	0.00
4,300.00	8.20	283.81	4,269.04	105.40	-428.79	-101.81	0.00	0.00	0.00	0.00
4,400.00	8.20	283.81	4,368.02	108.81	-442.65	-105.10	0.00	0.00	0.00	0.00
4,436.35	8.20	283.81	4,404.00	110.05	-447.68	-106.29	0.00	0.00	0.00	0.00
Sussex										
4,500.00	8.20	283.81	4,467.00	112.21	-456.50	-108.38	0.00	0.00	0.00	0.00
4,600.00	8.20	283.81	4,565.98	115.62	-470.35	-111.67	0.00	0.00	0.00	0.00
4,700.00	8.20	283.81	4,664.95	119.02	-484.20	-114.96	0.00	0.00	0.00	0.00
4,800.00	8.20	283.81	4,763.93	122.43	-498.06	-118.25	0.00	0.00	0.00	0.00
4,900.00	8.20	283.81	4,862.91	125.83	-511.91	-121.54	0.00	0.00	0.00	0.00

Plan Report for Rattler 35N-3HZ - Plan C 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 (°)
5,000.00	8.20	283.81	4,961.89	129.24	-525.76	-124.83	0.00	0.00	0.00	0.00
5,100.00	8.20	283.81	5,060.86	132.64	-539.62	-128.12	0.00	0.00	0.00	0.00
5,200.00	8.20	283.81	5,159.84	136.05	-553.47	-131.41	0.00	0.00	0.00	0.00
5,300.00	8.20	283.81	5,258.82	139.45	-567.32	-134.70	0.00	0.00	0.00	0.00
5,400.00	8.20	283.81	5,357.79	142.86	-581.17	-137.99	0.00	0.00	0.00	0.00
5,500.00	8.20	283.81	5,456.77	146.27	-595.03	-141.28	0.00	0.00	0.00	0.00
5,600.00	8.20	283.81	5,555.75	149.67	-608.88	-144.56	0.00	0.00	0.00	0.00
5,700.00	8.20	283.81	5,654.73	153.08	-622.73	-147.85	0.00	0.00	0.00	0.00
5,800.00	8.20	283.81	5,753.70	156.48	-636.59	-151.14	0.00	0.00	0.00	0.00
5,900.00	8.20	283.81	5,852.68	159.89	-650.44	-154.43	0.00	0.00	0.00	0.00
6,000.00	8.20	283.81	5,951.66	163.29	-664.29	-157.72	0.00	0.00	0.00	0.00
6,100.00	8.20	283.81	6,050.64	166.70	-678.15	-161.01	0.00	0.00	0.00	0.00
6,200.00	8.20	283.81	6,149.61	170.10	-692.00	-164.30	0.00	0.00	0.00	0.00
6,300.00	8.20	283.81	6,248.59	173.51	-705.85	-167.59	0.00	0.00	0.00	0.00
6,400.00	8.20	283.81	6,347.57	176.91	-719.70	-170.88	0.00	0.00	0.00	0.00
6,500.00	8.20	283.81	6,446.54	180.32	-733.56	-174.17	0.00	0.00	0.00	0.00
6,600.00	8.20	283.81	6,545.52	183.72	-747.41	-177.46	0.00	0.00	0.00	0.00
6,687.20	8.20	283.81	6,631.83	186.69	-759.49	-180.32	0.00	0.00	0.00	0.00
KOP @ 6687.20ft										
6,700.00	8.00	274.83	6,644.50	186.99	-761.26	-180.60	10.00	-1.56	-70.17	-103.39
6,800.00	12.28	220.35	6,743.12	179.45	-775.12	-172.95	10.00	4.28	-54.47	-94.50
6,900.00	20.89	201.83	6,838.94	154.73	-788.67	-148.12	10.00	8.61	-18.53	-40.72
7,000.00	30.34	194.14	6,929.03	113.59	-801.50	-106.87	10.00	9.45	-7.69	-22.91
DLS = 10.00/100ft										
7,100.00	40.04	189.88	7,010.67	57.26	-813.22	-50.45	10.00	9.70	-4.25	-15.95
7,200.00	49.84	187.08	7,081.38	-12.52	-823.47	19.42	10.00	9.80	-2.81	-12.46
7,213.56	51.18	186.76	7,090.00	-22.91	-824.73	29.82	10.00	9.84	-2.33	-10.46
Sharon Springs										
7,300.00	59.70	184.98	7,139.00	-93.66	-831.95	100.62	10.00	9.86	-2.06	-10.26
7,353.91	65.02	184.03	7,164.00	-141.25	-835.69	148.24	10.00	9.88	-1.77	-9.25
Niobrara A										
7,400.00	69.58	183.28	7,181.78	-183.67	-838.39	190.69	10.00	9.89	-1.63	-8.81
7,415.51	71.11	183.03	7,187.00	-198.25	-839.20	205.28	10.00	9.89	-1.56	-8.52
Niobrara B										
7,500.00	79.47	181.78	7,208.43	-279.83	-842.61	286.88	10.00	9.90	-1.49	-8.43
7,592.09	88.59	180.48	7,218.00	-371.30	-844.40	378.36	10.00	9.90	-1.41	-8.11
End Build @ 7592.09ft - Niobrara B(Target--Heel) - 7" Intermediate Casing - Rattler 35N-3HZ PERMIT_CP										
7,600.00	88.59	180.48	7,218.19	-379.21	-844.47	386.27	0.01	0.01	0.00	-7.98
7,700.00	88.59	180.48	7,220.65	-479.18	-845.31	486.24	0.00	0.00	0.00	0.00
7,800.00	88.59	180.48	7,223.11	-579.14	-846.15	586.21	0.00	0.00	0.00	0.00
7,900.00	88.59	180.48	7,225.57	-679.11	-846.99	686.18	0.00	0.00	0.00	0.00
8,000.00	88.59	180.48	7,228.03	-779.08	-847.83	786.15	0.00	0.00	0.00	0.00
8,100.00	88.59	180.48	7,230.49	-879.04	-848.67	886.12	0.00	0.00	0.00	0.00
8,200.00	88.59	180.48	7,232.95	-979.01	-849.51	986.09	0.00	0.00	0.00	0.00
8,300.00	88.59	180.48	7,235.41	-1,078.97	-850.35	1,086.06	0.00	0.00	0.00	0.00
8,400.00	88.59	180.48	7,237.87	-1,178.94	-851.19	1,186.03	0.00	0.00	0.00	0.00
8,500.00	88.59	180.48	7,240.33	-1,278.91	-852.03	1,286.00	0.00	0.00	0.00	0.00
8,600.00	88.59	180.48	7,242.79	-1,378.87	-852.88	1,385.97	0.00	0.00	0.00	0.00
8,700.00	88.59	180.48	7,245.25	-1,478.84	-853.72	1,485.94	0.00	0.00	0.00	0.00
8,800.00	88.59	180.48	7,247.71	-1,578.81	-854.56	1,585.91	0.00	0.00	0.00	0.00
8,900.00	88.59	180.48	7,250.17	-1,678.77	-855.40	1,685.88	0.00	0.00	0.00	0.00
9,000.00	88.59	180.48	7,252.63	-1,778.74	-856.24	1,785.85	0.00	0.00	0.00	0.00
9,100.00	88.59	180.48	7,255.09	-1,878.70	-857.08	1,885.82	0.00	0.00	0.00	0.00
9,200.00	88.59	180.48	7,257.55	-1,978.67	-857.92	1,985.79	0.00	0.00	0.00	0.00
9,300.00	88.59	180.48	7,260.01	-2,078.64	-858.76	2,085.76	0.00	0.00	0.00	0.00
9,400.00	88.59	180.48	7,262.47	-2,178.60	-859.60	2,185.73	0.00	0.00	0.00	0.00
9,500.00	88.59	180.48	7,264.93	-2,278.57	-860.44	2,285.70	0.00	0.00	0.00	0.00
9,600.00	88.59	180.48	7,267.39	-2,378.54	-861.28	2,385.67	0.00	0.00	0.00	0.00
9,700.00	88.59	180.48	7,269.85	-2,478.50	-862.12	2,485.64	0.00	0.00	0.00	0.00

Plan Report for Rattler 35N-3HZ - Plan C 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)	Tooface Azimuth (°)
9,800.00	88.59	180.48	7,272.31	-2,578.47	-862.97	2,585.61	0.00	0.00	0.00	0.00
9,900.00	88.59	180.48	7,274.77	-2,678.43	-863.81	2,685.58	0.00	0.00	0.00	0.00
10,000.00	88.59	180.48	7,277.23	-2,778.40	-864.65	2,785.55	0.00	0.00	0.00	0.00
10,100.00	88.59	180.48	7,279.69	-2,878.37	-865.49	2,885.52	0.00	0.00	0.00	0.00
10,200.00	88.59	180.48	7,282.15	-2,978.33	-866.33	2,985.49	0.00	0.00	0.00	0.00
10,300.00	88.59	180.48	7,284.61	-3,078.30	-867.17	3,085.46	0.00	0.00	0.00	0.00
10,400.00	88.59	180.48	7,287.07	-3,178.27	-868.01	3,185.43	0.00	0.00	0.00	0.00
10,500.00	88.59	180.48	7,289.53	-3,278.23	-868.85	3,285.40	0.00	0.00	0.00	0.00
10,600.00	88.59	180.48	7,291.99	-3,378.20	-869.69	3,385.36	0.00	0.00	0.00	0.00
10,700.00	88.59	180.48	7,294.45	-3,478.16	-870.53	3,485.33	0.00	0.00	0.00	0.00
10,800.00	88.59	180.48	7,296.91	-3,578.13	-871.37	3,585.30	0.00	0.00	0.00	0.00
10,900.00	88.59	180.48	7,299.37	-3,678.10	-872.22	3,685.27	0.00	0.00	0.00	0.00
11,000.00	88.59	180.48	7,301.83	-3,778.06	-873.06	3,785.24	0.00	0.00	0.00	0.00
11,100.00	88.59	180.48	7,304.29	-3,878.03	-873.90	3,885.21	0.00	0.00	0.00	0.00
11,200.00	88.59	180.48	7,306.75	-3,977.99	-874.74	3,985.18	0.00	0.00	0.00	0.00
11,300.00	88.59	180.48	7,309.21	-4,077.96	-875.58	4,085.15	0.00	0.00	0.00	0.00
11,400.00	88.59	180.48	7,311.67	-4,177.93	-876.42	4,185.12	0.00	0.00	0.00	0.00
11,500.00	88.59	180.48	7,314.13	-4,277.89	-877.26	4,285.09	0.00	0.00	0.00	0.00
11,600.00	88.59	180.48	7,316.59	-4,377.86	-878.10	4,385.06	0.00	0.00	0.00	0.00
11,700.00	88.59	180.48	7,319.05	-4,477.83	-878.94	4,485.03	0.00	0.00	0.00	0.00
11,800.00	88.59	180.48	7,321.51	-4,577.79	-879.78	4,585.00	0.00	0.00	0.00	0.00
11,900.00	88.59	180.48	7,323.97	-4,677.76	-880.62	4,684.97	0.00	0.00	0.00	0.00
12,000.00	88.59	180.48	7,326.43	-4,777.72	-881.46	4,784.94	0.00	0.00	0.00	0.00
12,100.00	88.59	180.48	7,328.89	-4,877.69	-882.31	4,884.91	0.00	0.00	0.00	0.00
12,200.00	88.59	180.48	7,331.35	-4,977.66	-883.15	4,984.88	0.00	0.00	0.00	0.00
12,300.00	88.59	180.48	7,333.81	-5,077.62	-883.99	5,084.85	0.00	0.00	0.00	0.00
12,400.00	88.59	180.48	7,336.27	-5,177.59	-884.83	5,184.82	0.00	0.00	0.00	0.00
12,500.00	88.59	180.48	7,338.73	-5,277.56	-885.67	5,284.79	0.00	0.00	0.00	0.00
12,600.00	88.59	180.48	7,341.19	-5,377.52	-886.51	5,384.76	0.00	0.00	0.00	0.00
12,700.00	88.59	180.48	7,343.65	-5,477.49	-887.35	5,484.73	0.00	0.00	0.00	0.00
12,800.00	88.59	180.48	7,346.11	-5,577.45	-888.19	5,584.70	0.00	0.00	0.00	0.00
12,876.81	88.59	180.48	7,348.00	-5,654.23	-888.84	5,661.48	0.00	0.00	0.00	0.00

Niobrara B(Target--Toe) - Rattler 35N-3HZ PERMIT_BHL

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	Begin Nudge @ 1000.00ft
1,410.07	1,408.67	6.99	-28.45	End Nudge @ 1410.07ft
6,687.20	6,631.83	186.69	-759.49	KOP @ 6687.20ft
7,000.00	6,929.03	113.59	-801.50	DLS = 10.00/100ft
7,592.09	7,218.00	-371.30	-844.40	End Build @ 7592.09ft
12,876.81	7,348.00	-5,654.24	-888.84	TD @ 12876.81ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/_S (ft)	+E/-W (ft)	
User	No Target (Freehand)	180.48	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	12,876.81	Plan C Rev 0 - PERMIT	MWD

Plan Report for Rattler 35N-3HZ - Plan C Rev 0 - PERMIT**Casing Details**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
800.00	800.00	9 5/8" Surface Casing	9-5/8	13-1/2
7,592.09	7,218.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,172.65	4,143.00	Parkman			
4,436.35	4,404.00	Sussex			
7,213.56	7,090.00	Sharon Springs			
7,353.91	7,164.00	Niobrara A			
7,415.51	7,187.00	Niobrara B			
7,592.09	7,218.00	Niobrara B(Target--Heel)			
12,876.81	7,348.00	Niobrara B(Target--Toe)			

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Rattler 35N-3HZ PERMIT_SHL	0.00	0.00	0.00	Point
Rattler 35N-3HZ PERMIT_SB	0.00	0.00	0.00	Polygon
Rattler 35N-3HZ PERMIT_BHL	7,348.00	-5,654.23	-888.84	Point
Rattler 35N-3HZ PERMIT_SL	0.00	0.00	0.00	Polygon
Rattler 35N-3HZ PERMIT_CP	7,218.00	-371.30	-844.40	Point

North Reference Sheet for Sec. 34-T3N-R66W - Rattler 35N-3HZ - Plan C 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 @ 5008.00ft (Drilling Rig). Northing and Easting are relative to Rattler 35N-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: 0.99995771

Grid Coordinates of Well: 1,307,584.28 ft N, 3,205,425.43 ft E
 Geographical Coordinates of Well: 40° 10' 31.36" N, 104° 45' 53.43" W
 Grid Convergence at Surface is: 0.48°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,876.81ft
 the Bottom Hole Displacement is 5,723.67ft in the Direction of 188.93° (True).

Magnetic Convergence at surface is: -8.17° (23 April 2013, , BGGM2012)

