

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 34-T3N-R66W

Rattler 13N-3HZ

Plan B Rev 0

Plan: Plan B Rev 0 Permit

Sperry Drilling Services

Proposal Report

27 February, 2013

Well Coordinates: 1,307,505.68 N, 3,203,981.36 E (40° 10' 30.70" N, 104° 46' 12.04" W)

Ground Level: 4,970.00 ft

Local Coordinate Origin:

Centered on Well Rattler 13N-3HZ

Viewing Datum:

RKB=17 @ 4987.00ft (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 13N-3HZ
Wellbore: Plan B Rev 0
Design: Plan B Rev 0 Permit

Anadarko Petroleum Corp.

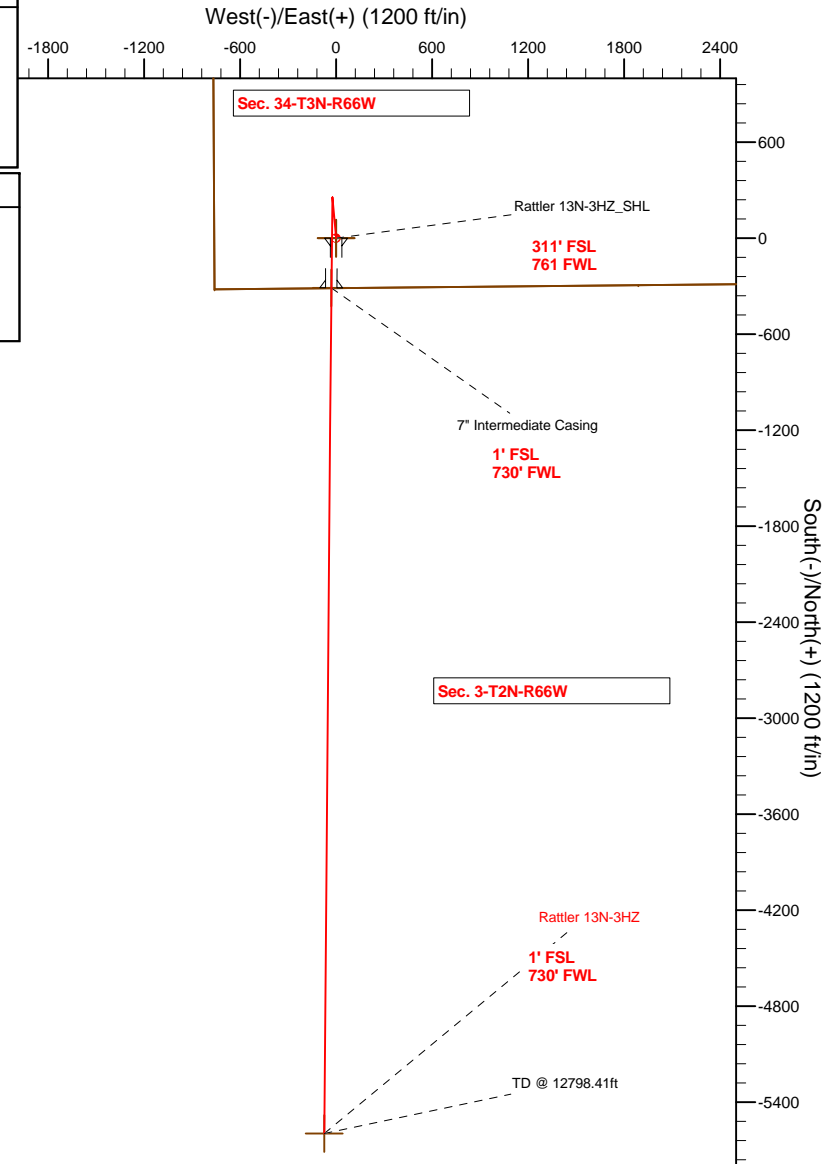
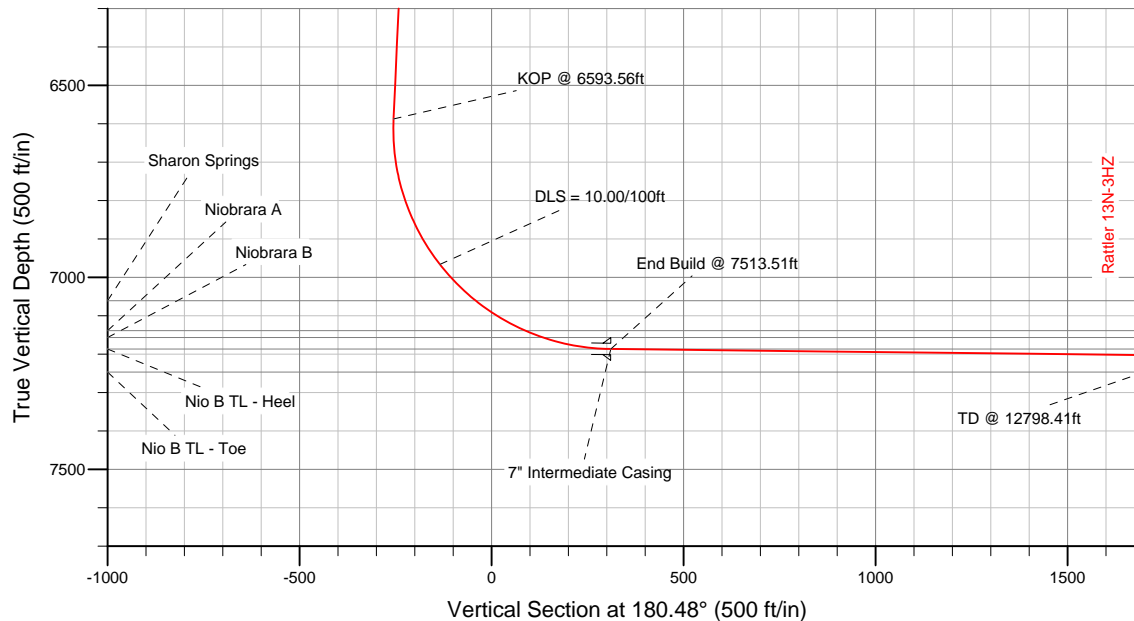
HALLIBURTON
Sperry Drilling

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	1132.87	2.66	355.03	1132.83	3.07	-0.27	2.00	355.03	-3.07	
4	6593.56	2.66	355.03	6587.64	255.30	-22.21	0.00	0.00	-255.11	
5	7513.51	89.35	180.48	7187.00	-310.50	-29.59	10.00	-174.54	310.74	Rattler 13N-3HZ_CP
6	12798.41	89.35	180.48	7247.00	-5594.87	-74.07	0.00	0.00	5595.29	Rattler 13N-3HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Rattler 13N-3HZ_Sec 34	0.00	0.00	0.00	40.175194	-104.770011	Polygon
Rattler 13N-3HZ_SHL	0.00	0.00	0.00	40.175194	-104.770011	Point
Rattler 13N-3HZ_CP	7187.00	-310.50	-29.59	40.174342	-104.770117	Point
Rattler 13N-3HZ_BHL	7247.00	-5594.87	-74.07	40.159836	-104.770276	Point



WELL DETAILS: Rattler 13N-3HZ

Ground Level:	4970.00
RKB=17 @ 4987.00ft (Drilling Rig)	
Plan: Plan B Rev 0 Permit (Rattler 13N-3HZ/Plan B Rev 0)	
Created By: Fred Hartmann	Date: 02/07/2013
Reviewed: _____	Date: _____

Plan Report for Rattler 13N-3HZ - Plan B 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	355.03	1,099.98	1.74	-0.15	-1.74	2.00	2.00	0.00	355.03
1,132.87	2.66	355.03	1,132.82	3.07	-0.27	-3.07	2.00	2.00	0.00	0.00
End Nudge @ 1132.87ft										
1,200.00	2.66	355.03	1,199.88	6.17	-0.54	-6.17	0.00	0.00	0.00	0.00
1,300.00	2.66	355.03	1,299.77	10.79	-0.94	-10.78	0.00	0.00	0.00	0.00
1,400.00	2.66	355.03	1,399.67	15.41	-1.34	-15.40	0.00	0.00	0.00	0.00
1,500.00	2.66	355.03	1,499.56	20.03	-1.74	-20.01	0.00	0.00	0.00	0.00
1,600.00	2.66	355.03	1,599.45	24.65	-2.14	-24.63	0.00	0.00	0.00	0.00
1,700.00	2.66	355.03	1,699.34	29.27	-2.55	-29.24	0.00	0.00	0.00	0.00
1,800.00	2.66	355.03	1,799.23	33.88	-2.95	-33.86	0.00	0.00	0.00	0.00
1,900.00	2.66	355.03	1,899.13	38.50	-3.35	-38.47	0.00	0.00	0.00	0.00
2,000.00	2.66	355.03	1,999.02	43.12	-3.75	-43.09	0.00	0.00	0.00	0.00
2,100.00	2.66	355.03	2,098.91	47.74	-4.15	-47.70	0.00	0.00	0.00	0.00
2,200.00	2.66	355.03	2,198.80	52.36	-4.56	-52.32	0.00	0.00	0.00	0.00
2,300.00	2.66	355.03	2,298.70	56.98	-4.96	-56.94	0.00	0.00	0.00	0.00
2,400.00	2.66	355.03	2,398.59	61.60	-5.36	-61.55	0.00	0.00	0.00	0.00
2,500.00	2.66	355.03	2,498.48	66.22	-5.76	-66.17	0.00	0.00	0.00	0.00
2,600.00	2.66	355.03	2,598.37	70.84	-6.16	-70.78	0.00	0.00	0.00	0.00
2,700.00	2.66	355.03	2,698.27	75.46	-6.57	-75.40	0.00	0.00	0.00	0.00
2,800.00	2.66	355.03	2,798.16	80.07	-6.97	-80.01	0.00	0.00	0.00	0.00
2,900.00	2.66	355.03	2,898.05	84.69	-7.37	-84.63	0.00	0.00	0.00	0.00
3,000.00	2.66	355.03	2,997.94	89.31	-7.77	-89.24	0.00	0.00	0.00	0.00
3,100.00	2.66	355.03	3,097.84	93.93	-8.17	-93.86	0.00	0.00	0.00	0.00
3,200.00	2.66	355.03	3,197.73	98.55	-8.57	-98.48	0.00	0.00	0.00	0.00
3,300.00	2.66	355.03	3,297.62	103.17	-8.98	-103.09	0.00	0.00	0.00	0.00
3,400.00	2.66	355.03	3,397.51	107.79	-9.38	-107.71	0.00	0.00	0.00	0.00
3,500.00	2.66	355.03	3,497.41	112.41	-9.78	-112.32	0.00	0.00	0.00	0.00
3,600.00	2.66	355.03	3,597.30	117.03	-10.18	-116.94	0.00	0.00	0.00	0.00
3,700.00	2.66	355.03	3,697.19	121.65	-10.58	-121.55	0.00	0.00	0.00	0.00
3,800.00	2.66	355.03	3,797.08	126.26	-10.99	-126.17	0.00	0.00	0.00	0.00
3,900.00	2.66	355.03	3,896.98	130.88	-11.39	-130.78	0.00	0.00	0.00	0.00
3,991.12	2.66	355.03	3,988.00	135.09	-11.75	-134.99	0.00	0.00	0.00	0.00
Parkman										
4,000.00	2.66	355.03	3,996.87	135.50	-11.79	-135.40	0.00	0.00	0.00	0.00
4,100.00	2.66	355.03	4,096.76	140.12	-12.19	-140.01	0.00	0.00	0.00	0.00
4,200.00	2.66	355.03	4,196.65	144.74	-12.59	-144.63	0.00	0.00	0.00	0.00
4,300.00	2.66	355.03	4,296.55	149.36	-13.00	-149.25	0.00	0.00	0.00	0.00
4,394.56	2.66	355.03	4,391.00	153.73	-13.38	-153.61	0.00	0.00	0.00	0.00
Sussex										
4,400.00	2.66	355.03	4,396.44	153.98	-13.40	-153.86	0.00	0.00	0.00	0.00
4,500.00	2.66	355.03	4,496.33	158.60	-13.80	-158.48	0.00	0.00	0.00	0.00
4,600.00	2.66	355.03	4,596.22	163.22	-14.20	-163.09	0.00	0.00	0.00	0.00
4,700.00	2.66	355.03	4,696.12	167.84	-14.60	-167.71	0.00	0.00	0.00	0.00
4,800.00	2.66	355.03	4,796.01	172.46	-15.00	-172.32	0.00	0.00	0.00	0.00
4,900.00	2.66	355.03	4,895.90	177.07	-15.41	-176.94	0.00	0.00	0.00	0.00

Plan Report for Rattler 13N-3HZ - Plan B 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	2.66	355.03	4,995.79	181.69	-15.81	-181.55	0.00	0.00	0.00	0.00
5,100.00	2.66	355.03	5,095.69	186.31	-16.21	-186.17	0.00	0.00	0.00	0.00
5,200.00	2.66	355.03	5,195.58	190.93	-16.61	-190.79	0.00	0.00	0.00	0.00
5,300.00	2.66	355.03	5,295.47	195.55	-17.01	-195.40	0.00	0.00	0.00	0.00
5,400.00	2.66	355.03	5,395.36	200.17	-17.42	-200.02	0.00	0.00	0.00	0.00
5,500.00	2.66	355.03	5,495.26	204.79	-17.82	-204.63	0.00	0.00	0.00	0.00
5,600.00	2.66	355.03	5,595.15	209.41	-18.22	-209.25	0.00	0.00	0.00	0.00
5,700.00	2.66	355.03	5,695.04	214.03	-18.62	-213.86	0.00	0.00	0.00	0.00
5,800.00	2.66	355.03	5,794.93	218.65	-19.02	-218.48	0.00	0.00	0.00	0.00
5,900.00	2.66	355.03	5,894.83	223.26	-19.43	-223.09	0.00	0.00	0.00	0.00
6,000.00	2.66	355.03	5,994.72	227.88	-19.83	-227.71	0.00	0.00	0.00	0.00
6,100.00	2.66	355.03	6,094.61	232.50	-20.23	-232.32	0.00	0.00	0.00	0.00
6,200.00	2.66	355.03	6,194.50	237.12	-20.63	-236.94	0.00	0.00	0.00	0.00
6,300.00	2.66	355.03	6,294.40	241.74	-21.03	-241.56	0.00	0.00	0.00	0.00
6,400.00	2.66	355.03	6,394.29	246.36	-21.43	-246.17	0.00	0.00	0.00	0.00
6,500.00	2.66	355.03	6,494.18	250.98	-21.84	-250.79	0.00	0.00	0.00	0.00
6,593.56	2.66	355.03	6,587.64	255.30	-22.21	-255.11	0.00	0.00	0.00	0.00
KOP @ 6593.56ft										
6,600.00	2.02	353.29	6,594.07	255.56	-22.24	-255.37	10.00	-9.94	-27.02	-174.54
6,700.00	8.00	182.28	6,693.81	250.34	-22.72	-250.14	10.00	5.99	-171.01	-172.80
6,800.00	18.00	181.26	6,791.12	227.88	-23.34	-227.68	10.00	10.00	-1.02	-1.82
6,900.00	28.00	180.95	6,883.06	188.86	-24.07	-188.66	10.00	10.00	-0.30	-0.82
7,000.00	38.00	180.80	6,966.82	134.48	-24.90	-134.26	10.00	10.00	-0.15	-0.54
DLS = 10.00/100ft										
7,100.00	48.00	180.71	7,039.86	66.37	-25.79	-66.15	10.00	10.00	-0.10	-0.41
7,132.64	51.26	180.68	7,061.00	41.51	-26.09	-41.29	10.00	10.00	-0.08	-0.34
Sharon Springs										
7,200.00	58.00	180.64	7,099.97	-13.38	-26.72	13.61	10.00	10.00	-0.07	-0.32
7,283.72	66.37	180.59	7,139.00	-87.36	-27.51	87.59	10.00	10.00	-0.06	-0.30
Niobrara A										
7,300.00	68.00	180.58	7,145.31	-102.37	-27.66	102.59	10.00	10.00	-0.05	-0.28
7,333.67	71.37	180.56	7,157.00	-133.93	-27.98	134.16	10.00	10.00	-0.05	-0.27
Niobrara B										
7,400.00	78.00	180.53	7,174.51	-197.87	-28.59	198.10	10.00	10.00	-0.05	-0.27
7,500.00	88.00	180.49	7,186.69	-296.99	-29.48	297.23	10.00	10.00	-0.04	-0.26
7,513.51	89.35	180.48	7,187.00	-310.50	-29.59	310.74	10.00	10.00	-0.04	-0.25
End Build @ 7513.51ft - Nio B TL - Heel - 7" Intermediate Casing - Rattler 13N-3HZ_CP										
7,600.00	89.35	180.48	7,187.98	-396.98	-30.32	397.22	0.00	0.00	0.00	-0.25
7,700.00	89.35	180.48	7,189.12	-496.97	-31.16	497.22	0.00	0.00	0.00	0.00
7,800.00	89.35	180.48	7,190.25	-596.96	-32.00	597.21	0.00	0.00	0.00	0.00
7,900.00	89.35	180.48	7,191.39	-696.95	-32.84	697.20	0.00	0.00	0.00	0.00
8,000.00	89.35	180.48	7,192.52	-796.94	-33.68	797.20	0.00	0.00	0.00	0.00
8,100.00	89.35	180.48	7,193.66	-896.93	-34.53	897.19	0.00	0.00	0.00	0.00
8,200.00	89.35	180.48	7,194.79	-996.92	-35.37	997.18	0.00	0.00	0.00	0.00
8,300.00	89.35	180.48	7,195.93	-1,096.91	-36.21	1,097.18	0.00	0.00	0.00	0.00
8,400.00	89.35	180.48	7,197.06	-1,196.90	-37.05	1,197.17	0.00	0.00	0.00	0.00
8,500.00	89.35	180.48	7,198.20	-1,296.89	-37.89	1,297.16	0.00	0.00	0.00	0.00
8,600.00	89.35	180.48	7,199.34	-1,396.88	-38.73	1,397.16	0.00	0.00	0.00	0.00
8,700.00	89.35	180.48	7,200.47	-1,496.87	-39.58	1,497.15	0.00	0.00	0.00	0.00
8,800.00	89.35	180.48	7,201.61	-1,596.86	-40.42	1,597.14	0.00	0.00	0.00	0.00
8,900.00	89.35	180.48	7,202.74	-1,696.85	-41.26	1,697.14	0.00	0.00	0.00	0.00
9,000.00	89.35	180.48	7,203.88	-1,796.84	-42.10	1,797.13	0.00	0.00	0.00	0.00
9,100.00	89.35	180.48	7,205.01	-1,896.83	-42.94	1,897.13	0.00	0.00	0.00	0.00
9,200.00	89.35	180.48	7,206.15	-1,996.82	-43.78	1,997.12	0.00	0.00	0.00	0.00
9,300.00	89.35	180.48	7,207.28	-2,096.81	-44.63	2,097.11	0.00	0.00	0.00	0.00
9,400.00	89.35	180.48	7,208.42	-2,196.80	-45.47	2,197.11	0.00	0.00	0.00	0.00
9,500.00	89.35	180.48	7,209.55	-2,296.79	-46.31	2,297.10	0.00	0.00	0.00	0.00
9,600.00	89.35	180.48	7,210.69	-2,396.78	-47.15	2,397.09	0.00	0.00	0.00	0.00
9,700.00	89.35	180.48	7,211.82	-2,496.77	-47.99	2,497.09	0.00	0.00	0.00	0.00

Plan Report for Rattler 13N-3HZ - Plan B 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 (°)
9,800.00	89.35	180.48	7,212.96	-2,596.76	-48.83	2,597.08	0.00	0.00	0.00	0.00
9,900.00	89.35	180.48	7,214.09	-2,696.75	-49.68	2,697.07	0.00	0.00	0.00	0.00
10,000.00	89.35	180.48	7,215.23	-2,796.74	-50.52	2,797.07	0.00	0.00	0.00	0.00
10,100.00	89.35	180.48	7,216.36	-2,896.73	-51.36	2,897.06	0.00	0.00	0.00	0.00
10,200.00	89.35	180.48	7,217.50	-2,996.72	-52.20	2,997.05	0.00	0.00	0.00	0.00
10,300.00	89.35	180.48	7,218.64	-3,096.71	-53.04	3,097.05	0.00	0.00	0.00	0.00
10,400.00	89.35	180.48	7,219.77	-3,196.70	-53.88	3,197.04	0.00	0.00	0.00	0.00
10,500.00	89.35	180.48	7,220.91	-3,296.69	-54.73	3,297.03	0.00	0.00	0.00	0.00
10,600.00	89.35	180.48	7,222.04	-3,396.68	-55.57	3,397.03	0.00	0.00	0.00	0.00
10,700.00	89.35	180.48	7,223.18	-3,496.67	-56.41	3,497.02	0.00	0.00	0.00	0.00
10,800.00	89.35	180.48	7,224.31	-3,596.66	-57.25	3,597.02	0.00	0.00	0.00	0.00
10,900.00	89.35	180.48	7,225.45	-3,696.65	-58.09	3,697.01	0.00	0.00	0.00	0.00
11,000.00	89.35	180.48	7,226.58	-3,796.64	-58.93	3,797.00	0.00	0.00	0.00	0.00
11,100.00	89.35	180.48	7,227.72	-3,896.63	-59.78	3,897.00	0.00	0.00	0.00	0.00
11,200.00	89.35	180.48	7,228.85	-3,996.62	-60.62	3,996.99	0.00	0.00	0.00	0.00
11,300.00	89.35	180.48	7,229.99	-4,096.61	-61.46	4,096.98	0.00	0.00	0.00	0.00
11,400.00	89.35	180.48	7,231.12	-4,196.60	-62.30	4,196.98	0.00	0.00	0.00	0.00
11,500.00	89.35	180.48	7,232.26	-4,296.59	-63.14	4,296.97	0.00	0.00	0.00	0.00
11,600.00	89.35	180.48	7,233.39	-4,396.58	-63.98	4,396.96	0.00	0.00	0.00	0.00
11,700.00	89.35	180.48	7,234.53	-4,496.57	-64.83	4,496.96	0.00	0.00	0.00	0.00
11,800.00	89.35	180.48	7,235.66	-4,596.56	-65.67	4,596.95	0.00	0.00	0.00	0.00
11,900.00	89.35	180.48	7,236.80	-4,696.55	-66.51	4,696.94	0.00	0.00	0.00	0.00
12,000.00	89.35	180.48	7,237.94	-4,796.54	-67.35	4,796.94	0.00	0.00	0.00	0.00
12,100.00	89.35	180.48	7,239.07	-4,896.53	-68.19	4,896.93	0.00	0.00	0.00	0.00
12,200.00	89.35	180.48	7,240.21	-4,996.52	-69.03	4,996.93	0.00	0.00	0.00	0.00
12,300.00	89.35	180.48	7,241.34	-5,096.51	-69.88	5,096.92	0.00	0.00	0.00	0.00
12,400.00	89.35	180.48	7,242.48	-5,196.50	-70.72	5,196.91	0.00	0.00	0.00	0.00
12,500.00	89.35	180.48	7,243.61	-5,296.49	-71.56	5,296.91	0.00	0.00	0.00	0.00
12,600.00	89.35	180.48	7,244.75	-5,396.48	-72.40	5,396.90	0.00	0.00	0.00	0.00
12,700.00	89.35	180.48	7,245.88	-5,496.47	-73.24	5,496.89	0.00	0.00	0.00	0.00
12,798.41	89.35	180.48	7,247.00	-5,594.87	-74.07	5,595.29	0.00	0.00	0.00	0.00

Nio B TL - Toe - Rattler 13N-3HZ_BHL

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
1,000.00	1,000.00	0.00	0.00	Begin Nudge @ 1000.00ft
1,132.87	1,132.82	3.07	-0.27	End Nudge @ 1132.87ft
6,593.56	6,587.64	255.30	-22.21	KOP @ 6593.56ft
7,000.00	6,966.82	134.48	-24.90	DLS = 10.00/100ft
7,513.51	7,187.00	-310.50	-29.59	End Build @ 7513.51ft
12,798.41	7,247.00	-5,594.87	-74.07	TD @ 12798.41ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (ft)	+E/-W (ft)	Start TVD (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	12,798.41	Plan B Rev 0 Permit	MWD

Plan Report for Rattler 13N-3HZ - Plan B 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
7,513.51	7,187.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,991.12	3,988.00	Parkman		0.00	
4,394.56	4,391.00	Sussex		0.00	
7,132.64	7,061.00	Sharon Springs		0.00	
7,283.72	7,139.00	Niobrara A		0.00	
7,333.67	7,157.00	Niobrara B		0.00	
7,513.51	7,187.00	Nio B TL - Heel		0.00	
12,798.41	7,247.00	Nio B TL - Toe		0.00	

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Rattler 13N-3HZ_Sec 34	0.00	0.00	0.00	Polygon
Rattler 13N-3HZ_CP	7,187.00	-310.50	-29.59	Point
Rattler 13N-3HZ_SHL	0.00	0.00	0.00	Point
Rattler 13N-3HZ_BHL	7,247.00	-5,594.87	-74.07	Point

North Reference Sheet for Sec. 34-T3N-R66W - Rattler 13N-3HZ - Plan B 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 @ 4987.00ft (Drilling Rig). Northing and Easting are relative to Rattler 13N-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: 1,307,505.68 ft N, 3,203,981.36 ft E
 Geographical Coordinates of Well: 40° 10' 30.70" N, 104° 46' 12.04" W
 Grid Convergence at Surface is: 0.47°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,798.41ft
 the Bottom Hole Displacement is 5,595.36ft in the Direction of 180.76° (True).
 Magnetic Convergence at surface is: -8.20° (27 February 2013, , BGGM2012)

