

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 19-T1N-R67W

Ralph 36C-19HZ

Plan A Rev 0

Plan: Plan A Rev 0 Permit

Sperry Drilling Services

Proposal Report

24 August, 2012

Well Coordinates: 1,259,107.13 N, 3,157,443.36 E (40° 02' 35.76" N, 104° 56' 15.54" W)

Ground Level: 5,118.00 ft

Local Coordinate Origin:	Centered on Well Ralph 36C-19HZ
Viewing Datum:	RKB=17 @ 5135.00ft (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. 19-T1N-R67W
 Well: Ralph 36C-19HZ
 Wellbore: Plan A Rev 0
 Design: Plan A Rev 0 Permit

Anadarko Petroleum Corp.



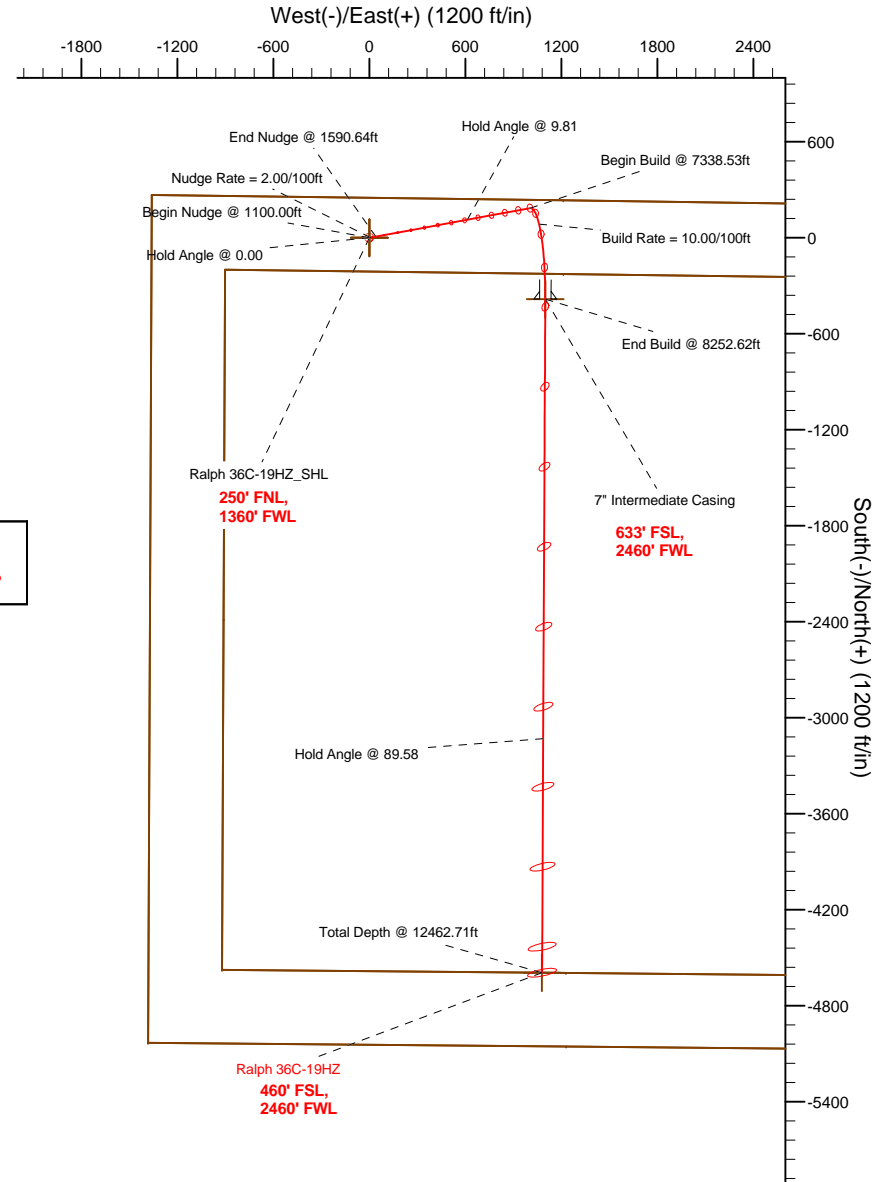
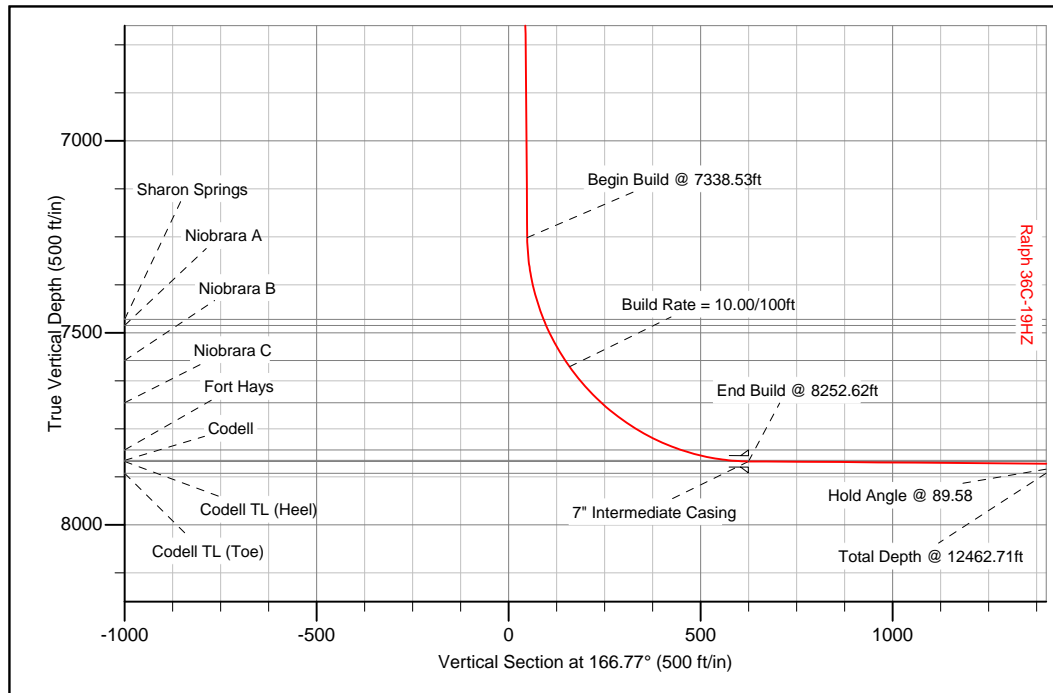
SECTION DETAILS

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	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
3	1590.64	9.81	79.51	1588.24	7.63	41.21	2.00	79.51	2.00	
4	7338.53	9.81	79.51	7252.05	185.98	1004.45	0.00	0.00	48.78	
5	8252.62	89.58	180.28	7835.00	-383.00	1100.00	10.00	100.68	624.53	Ralph 36C-19HZ_Casing Point
6	12462.71	89.58	180.28	7866.00	-4592.93	1079.55	0.00	0.00	4718.09	Ralph 36C-19HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Ralph 36C-19HZ_Section Lines	0.00	0.00	0.00	40.043267	-104.937650	Polygon
Ralph 36C-19HZ_Setback Lines	0.00	0.00	0.00	40.043267	-104.937650	Polygon
Ralph 36C-19HZ_SHL	0.00	0.00	0.00	40.043267	-104.937650	Point
Ralph 36C-19HZ_Casing Point	7835.00	-383.00	1100.00	40.042216	-104.933721	Point
Ralph 36C-19HZ_BHL	7866.00	-4592.93	1079.55	40.030659	-104.933795	Point

Target Line:
7831.41' TVDkb @ 0' VS Drilling 89.58°



WELL DETAILS: Ralph 36C-19HZ	
Ground Level: 5118.00	RKB=17 @ 5135.00ft (Drilling Rig)
Plan: Plan A Rev 0 Permit (Ralph 36C-19HZ/Plan A Rev 0)	
Created By: Fred Hartmann	Date: 08/24/2012
Reviewed: _____	Date: _____

Plan Report for Ralph 36C-19HZ - 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
Ralph 36C-19HZ_SHL - Ralph 36C-19HZ_Section Lines - Ralph 36C-19HZ_Setback Lines										
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
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 1100.00ft										
1,200.00	2.00	79.51	1,199.98	0.32	1.72	0.08	2.00	2.00	0.00	79.51
1,300.00	4.00	79.51	1,299.84	1.27	6.86	0.33	2.00	2.00	0.00	0.00
Nudge Rate = 2.00/100ft										
1,400.00	6.00	79.51	1,399.45	2.86	15.43	0.75	2.00	2.00	0.00	0.00
1,500.00	8.00	79.51	1,498.70	5.08	27.41	1.33	2.00	2.00	0.00	0.00
1,590.64	9.81	79.51	1,588.24	7.63	41.21	2.00	2.00	2.00	0.00	0.00
End Nudge @ 1590.64ft										
1,600.00	9.81	79.51	1,597.47	7.92	42.78	2.08	0.00	0.00	0.00	0.00
1,700.00	9.81	79.51	1,696.01	11.02	59.54	2.89	0.00	0.00	0.00	0.00
1,800.00	9.81	79.51	1,794.54	14.13	76.30	3.71	0.00	0.00	0.00	0.00
1,900.00	9.81	79.51	1,893.08	17.23	93.05	4.52	0.00	0.00	0.00	0.00
2,000.00	9.81	79.51	1,991.62	20.33	109.81	5.33	0.00	0.00	0.00	0.00
2,100.00	9.81	79.51	2,090.15	23.44	126.57	6.15	0.00	0.00	0.00	0.00
2,200.00	9.81	79.51	2,188.69	26.54	143.33	6.96	0.00	0.00	0.00	0.00
2,300.00	9.81	79.51	2,287.23	29.64	160.09	7.77	0.00	0.00	0.00	0.00
2,400.00	9.81	79.51	2,385.76	32.74	176.84	8.59	0.00	0.00	0.00	0.00
2,500.00	9.81	79.51	2,484.30	35.85	193.60	9.40	0.00	0.00	0.00	0.00
2,600.00	9.81	79.51	2,582.84	38.95	210.36	10.22	0.00	0.00	0.00	0.00
2,700.00	9.81	79.51	2,681.38	42.05	227.12	11.03	0.00	0.00	0.00	0.00
2,800.00	9.81	79.51	2,779.91	45.16	243.88	11.84	0.00	0.00	0.00	0.00
2,900.00	9.81	79.51	2,878.45	48.26	260.63	12.66	0.00	0.00	0.00	0.00
3,000.00	9.81	79.51	2,976.99	51.36	277.39	13.47	0.00	0.00	0.00	0.00
3,100.00	9.81	79.51	3,075.52	54.46	294.15	14.29	0.00	0.00	0.00	0.00
3,200.00	9.81	79.51	3,174.06	57.57	310.91	15.10	0.00	0.00	0.00	0.00
3,300.00	9.81	79.51	3,272.60	60.67	327.67	15.91	0.00	0.00	0.00	0.00
3,400.00	9.81	79.51	3,371.13	63.77	344.43	16.73	0.00	0.00	0.00	0.00
3,500.00	9.81	79.51	3,469.67	66.87	361.18	17.54	0.00	0.00	0.00	0.00
3,600.00	9.81	79.51	3,568.21	69.98	377.94	18.36	0.00	0.00	0.00	0.00
3,700.00	9.81	79.51	3,666.75	73.08	394.70	19.17	0.00	0.00	0.00	0.00
3,800.00	9.81	79.51	3,765.28	76.18	411.46	19.98	0.00	0.00	0.00	0.00
3,900.00	9.81	79.51	3,863.82	79.29	428.22	20.80	0.00	0.00	0.00	0.00
4,000.00	9.81	79.51	3,962.36	82.39	444.97	21.61	0.00	0.00	0.00	0.00
4,100.00	9.81	79.51	4,060.89	85.49	461.73	22.42	0.00	0.00	0.00	0.00
4,200.00	9.81	79.51	4,159.43	88.59	478.49	23.24	0.00	0.00	0.00	0.00
4,300.00	9.81	79.51	4,257.97	91.70	495.25	24.05	0.00	0.00	0.00	0.00
4,400.00	9.81	79.51	4,356.50	94.80	512.01	24.87	0.00	0.00	0.00	0.00
4,500.00	9.81	79.51	4,455.04	97.90	528.76	25.68	0.00	0.00	0.00	0.00
4,600.00	9.81	79.51	4,553.58	101.01	545.52	26.49	0.00	0.00	0.00	0.00
4,700.00	9.81	79.51	4,652.12	104.11	562.28	27.31	0.00	0.00	0.00	0.00
4,800.00	9.81	79.51	4,750.65	107.21	579.04	28.12	0.00	0.00	0.00	0.00
4,900.00	9.81	79.51	4,849.19	110.31	595.80	28.94	0.00	0.00	0.00	0.00
4,936.34	9.81	79.51	4,885.00	111.44	601.89	29.23	0.00	0.00	0.00	0.00
Sussex										

Plan Report for Ralph 36C-19HZ - 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 (°)
5,000.00	9.81	79.51	4,947.73	113.42	612.55	29.75	0.00	0.00	0.00	0.00
Hold Angle @ 9.81										
5,100.00	9.81	79.51	5,046.26	116.52	629.31	30.56	0.00	0.00	0.00	0.00
5,200.00	9.81	79.51	5,144.80	119.62	646.07	31.38	0.00	0.00	0.00	0.00
5,300.00	9.81	79.51	5,243.34	122.73	662.83	32.19	0.00	0.00	0.00	0.00
5,400.00	9.81	79.51	5,341.87	125.83	679.59	33.01	0.00	0.00	0.00	0.00
5,500.00	9.81	79.51	5,440.41	128.93	696.34	33.82	0.00	0.00	0.00	0.00
5,600.00	9.81	79.51	5,538.95	132.03	713.10	34.63	0.00	0.00	0.00	0.00
5,700.00	9.81	79.51	5,637.49	135.14	729.86	35.45	0.00	0.00	0.00	0.00
5,800.00	9.81	79.51	5,736.02	138.24	746.62	36.26	0.00	0.00	0.00	0.00
5,900.00	9.81	79.51	5,834.56	141.34	763.38	37.07	0.00	0.00	0.00	0.00
6,000.00	9.81	79.51	5,933.10	144.45	780.13	37.89	0.00	0.00	0.00	0.00
6,100.00	9.81	79.51	6,031.63	147.55	796.89	38.70	0.00	0.00	0.00	0.00
6,200.00	9.81	79.51	6,130.17	150.65	813.65	39.52	0.00	0.00	0.00	0.00
6,300.00	9.81	79.51	6,228.71	153.75	830.41	40.33	0.00	0.00	0.00	0.00
6,400.00	9.81	79.51	6,327.24	156.86	847.17	41.14	0.00	0.00	0.00	0.00
6,500.00	9.81	79.51	6,425.78	159.96	863.92	41.96	0.00	0.00	0.00	0.00
6,600.00	9.81	79.51	6,524.32	163.06	880.68	42.77	0.00	0.00	0.00	0.00
6,700.00	9.81	79.51	6,622.86	166.17	897.44	43.59	0.00	0.00	0.00	0.00
6,800.00	9.81	79.51	6,721.39	169.27	914.20	44.40	0.00	0.00	0.00	0.00
6,900.00	9.81	79.51	6,819.93	172.37	930.96	45.21	0.00	0.00	0.00	0.00
7,000.00	9.81	79.51	6,918.47	175.47	947.71	46.03	0.00	0.00	0.00	0.00
7,100.00	9.81	79.51	7,017.00	178.58	964.47	46.84	0.00	0.00	0.00	0.00
7,200.00	9.81	79.51	7,115.54	181.68	981.23	47.65	0.00	0.00	0.00	0.00
7,300.00	9.81	79.51	7,214.08	184.78	997.99	48.47	0.00	0.00	0.00	0.00
7,338.53	9.81	79.51	7,252.04	185.98	1,004.45	48.78	0.00	0.00	0.00	0.00
Begin Build @ 7338.53ft										
7,400.00	10.55	114.58	7,312.60	184.59	1,014.72	52.49	10.00	1.20	57.05	100.68
7,500.00	17.20	147.06	7,409.77	168.33	1,031.13	72.07	10.00	6.65	32.48	66.13
7,558.69	22.28	155.85	7,465.00	150.89	1,040.41	91.17	10.00	8.65	14.97	34.50
Sharon Springs										
7,576.08	23.85	157.75	7,481.00	144.62	1,043.09	97.88	10.00	9.04	10.93	26.22
Niobrara A										
7,600.00	26.04	160.01	7,502.69	135.21	1,046.71	107.88	10.00	9.18	9.43	24.47
7,679.91	33.56	165.51	7,572.00	97.28	1,058.26	147.44	10.00	9.41	6.89	22.42
Niobrara B										
7,700.00	35.48	166.56	7,588.55	86.23	1,061.00	158.82	10.00	9.55	5.22	17.64
Build Rate = 10.00/100ft										
7,800.00	45.13	170.62	7,664.73	22.88	1,073.56	223.37	10.00	9.65	4.05	16.77
7,825.02	47.57	171.42	7,682.00	5.00	1,076.38	241.42	10.00	9.73	3.20	13.67
Niobrara C										
7,900.00	54.89	173.49	7,728.93	-52.91	1,084.00	299.54	10.00	9.77	2.77	13.12
8,000.00	64.70	175.74	7,779.18	-138.85	1,092.01	385.03	10.00	9.81	2.25	11.81
8,069.28	71.51	177.09	7,805.00	-202.97	1,096.00	448.36	10.00	9.84	1.95	10.68
Fort Hays										
8,100.00	74.54	177.66	7,813.97	-232.31	1,097.35	477.24	10.00	9.85	1.83	10.17
8,197.67	84.16	179.35	7,832.00	-328.15	1,099.83	571.10	10.00	9.85	1.74	10.01
Codell										
8,200.00	84.39	179.39	7,832.23	-330.47	1,099.85	573.36	10.00	9.86	1.69	9.69
8,252.62	89.58	180.28	7,835.00	-383.00	1,100.00	624.53	10.00	9.86	1.68	9.69
End Build @ 8252.62ft - Codell TL (Heel) - 7" Intermediate Casing - Ralph 36C-19HZ_Casing Point										
8,300.00	89.58	180.28	7,835.35	-430.38	1,099.77	670.60	0.00	0.00	0.00	9.64
8,400.00	89.58	180.28	7,836.09	-530.37	1,099.28	767.83	0.00	0.00	0.00	0.00
8,500.00	89.58	180.28	7,836.82	-630.37	1,098.80	865.06	0.00	0.00	0.00	0.00
8,600.00	89.58	180.28	7,837.56	-730.37	1,098.31	962.30	0.00	0.00	0.00	0.00
8,700.00	89.58	180.28	7,838.29	-830.36	1,097.83	1,059.53	0.00	0.00	0.00	0.00
8,800.00	89.58	180.28	7,839.03	-930.36	1,097.34	1,156.76	0.00	0.00	0.00	0.00
8,900.00	89.58	180.28	7,839.77	-1,030.35	1,096.85	1,253.99	0.00	0.00	0.00	0.00

Plan Report for Ralph 36C-19HZ - 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 (°)
9,000.00	89.58	180.28	7,840.50	-1,130.35	1,096.37	1,351.22	0.00	0.00	0.00	0.00
9,100.00	89.58	180.28	7,841.24	-1,230.35	1,095.88	1,448.46	0.00	0.00	0.00	0.00
9,200.00	89.58	180.28	7,841.98	-1,330.34	1,095.40	1,545.69	0.00	0.00	0.00	0.00
9,300.00	89.58	180.28	7,842.71	-1,430.34	1,094.91	1,642.92	0.00	0.00	0.00	0.00
9,400.00	89.58	180.28	7,843.45	-1,530.34	1,094.43	1,740.15	0.00	0.00	0.00	0.00
9,500.00	89.58	180.28	7,844.18	-1,630.33	1,093.94	1,837.38	0.00	0.00	0.00	0.00
9,600.00	89.58	180.28	7,844.92	-1,730.33	1,093.45	1,934.62	0.00	0.00	0.00	0.00
9,700.00	89.58	180.28	7,845.66	-1,830.32	1,092.97	2,031.85	0.00	0.00	0.00	0.00
9,800.00	89.58	180.28	7,846.39	-1,930.32	1,092.48	2,129.08	0.00	0.00	0.00	0.00
9,900.00	89.58	180.28	7,847.13	-2,030.32	1,092.00	2,226.31	0.00	0.00	0.00	0.00
10,000.00	89.58	180.28	7,847.87	-2,130.31	1,091.51	2,323.55	0.00	0.00	0.00	0.00
10,100.00	89.58	180.28	7,848.60	-2,230.31	1,091.02	2,420.78	0.00	0.00	0.00	0.00
10,200.00	89.58	180.28	7,849.34	-2,330.30	1,090.54	2,518.01	0.00	0.00	0.00	0.00
10,300.00	89.58	180.28	7,850.08	-2,430.30	1,090.05	2,615.24	0.00	0.00	0.00	0.00
10,400.00	89.58	180.28	7,850.81	-2,530.30	1,089.57	2,712.47	0.00	0.00	0.00	0.00
10,500.00	89.58	180.28	7,851.55	-2,630.29	1,089.08	2,809.71	0.00	0.00	0.00	0.00
10,600.00	89.58	180.28	7,852.28	-2,730.29	1,088.60	2,906.94	0.00	0.00	0.00	0.00
10,700.00	89.58	180.28	7,853.02	-2,830.28	1,088.11	3,004.17	0.00	0.00	0.00	0.00
10,800.00	89.58	180.28	7,853.76	-2,930.28	1,087.62	3,101.40	0.00	0.00	0.00	0.00
10,900.00	89.58	180.28	7,854.49	-3,030.28	1,087.14	3,198.64	0.00	0.00	0.00	0.00
11,000.00	89.58	180.28	7,855.23	-3,130.27	1,086.65	3,295.87	0.00	0.00	0.00	0.00
Hold Angle @ 89.58										
11,100.00	89.58	180.28	7,855.97	-3,230.27	1,086.17	3,393.10	0.00	0.00	0.00	0.00
11,200.00	89.58	180.28	7,856.70	-3,330.27	1,085.68	3,490.33	0.00	0.00	0.00	0.00
11,300.00	89.58	180.28	7,857.44	-3,430.26	1,085.19	3,587.56	0.00	0.00	0.00	0.00
11,400.00	89.58	180.28	7,858.17	-3,530.26	1,084.71	3,684.80	0.00	0.00	0.00	0.00
11,500.00	89.58	180.28	7,858.91	-3,630.25	1,084.22	3,782.03	0.00	0.00	0.00	0.00
11,600.00	89.58	180.28	7,859.65	-3,730.25	1,083.74	3,879.26	0.00	0.00	0.00	0.00
11,700.00	89.58	180.28	7,860.38	-3,830.25	1,083.25	3,976.49	0.00	0.00	0.00	0.00
11,800.00	89.58	180.28	7,861.12	-3,930.24	1,082.77	4,073.72	0.00	0.00	0.00	0.00
11,900.00	89.58	180.28	7,861.86	-4,030.24	1,082.28	4,170.96	0.00	0.00	0.00	0.00
12,000.00	89.58	180.28	7,862.59	-4,130.23	1,081.79	4,268.19	0.00	0.00	0.00	0.00
12,100.00	89.58	180.28	7,863.33	-4,230.23	1,081.31	4,365.42	0.00	0.00	0.00	0.00
12,200.00	89.58	180.28	7,864.07	-4,330.23	1,080.82	4,462.65	0.00	0.00	0.00	0.00
12,300.00	89.58	180.28	7,864.80	-4,430.22	1,080.34	4,559.89	0.00	0.00	0.00	0.00
12,400.00	89.58	180.28	7,865.54	-4,530.22	1,079.85	4,657.12	0.00	0.00	0.00	0.00
12,462.71	89.58	180.28	7,866.00	-4,592.93	1,079.55	4,718.09	0.00	0.00	0.00	0.00
Total Depth @ 12462.71ft - Ralph 36C-19HZ_BHL										

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
1,100.00	1,100.00	0.00	0.00	Begin Nudge @ 1100.00ft
1,300.00	1,299.84	1.27	6.86	Nudge Rate = 2.00/100ft
1,590.64	1,588.24	7.63	41.21	End Nudge @ 1590.64ft
5,000.00	4,947.73	113.42	612.55	Hold Angle @ 9.81
7,338.53	7,252.04	185.98	1,004.45	Begin Build @ 7338.53ft
7,700.00	7,588.55	86.23	1,061.00	Build Rate = 10.00/100ft
8,252.62	7,835.00	-383.00	1,100.00	End Build @ 8252.62ft
11,000.00	7,855.23	-3,130.27	1,086.65	Hold Angle @ 89.58
12,462.71	7,866.00	-4,592.93	1,079.55	Total Depth @ 12462.71ft

Plan Report for Ralph 36C-19HZ - Plan A Rev 0 Permit**Vertical Section Information**

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
Target	Ralph 36C-19HZ_BHL	166.77	Slot	0.00	0.00	7,866.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	12,462.71	Plan A Rev 0 Permit	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,252.62	7,835.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,936.34	4,885.00	Sussex		0.00	
7,558.69	7,465.00	Sharon Springs		0.00	
7,576.08	7,481.00	Niobrara A		0.00	
7,679.91	7,572.00	Niobrara B		0.00	
7,825.02	7,682.00	Niobrara C		0.00	
8,069.28	7,805.00	Fort Hays		0.00	
8,197.67	7,832.00	Codell		0.00	
8,252.62	7,835.00	Codell TL (Heel)		0.00	
12,462.71	7,866.00	Codell TL (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Ralph 36C-19HZ_Section Lines	0.00	0.00	0.00	Polygon
Ralph 36C-19HZ_BHL	7,866.00	-4,592.93	1,079.55	Point
Ralph 36C-19HZ_Setback Lines	0.00	0.00	0.00	Polygon
Ralph 36C-19HZ_Casing Point	7,835.00	-383.00	1,100.00	Point
Ralph 36C-19HZ_SHL	0.00	0.00	0.00	Point

North Reference Sheet for Sec. 19-T1N-R67W - Ralph 36C-19HZ - 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 @ 5135.00ft (Drilling Rig). Northing and Easting are relative to Ralph 36C-19HZ
 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: 3,000,000.000644ft, False Northing: 1,000,000.001308ft, Scale Reduction: 0.99996337

Grid Coordinates of Well: 1,259,107.134848 ft N, 3,157,443.364784 ft E
 Geographical Coordinates of Well: 40° 02' 35.76" N, 104° 56' 15.54" W
 Grid Convergence at Surface is: 0.36°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,462.71ft
 the Bottom Hole Displacement is 4,718.09ft in the Direction of 166.77° (True).

Magnetic Convergence at surface is: -8.40° (24 August 2012, , BGGM2011)

