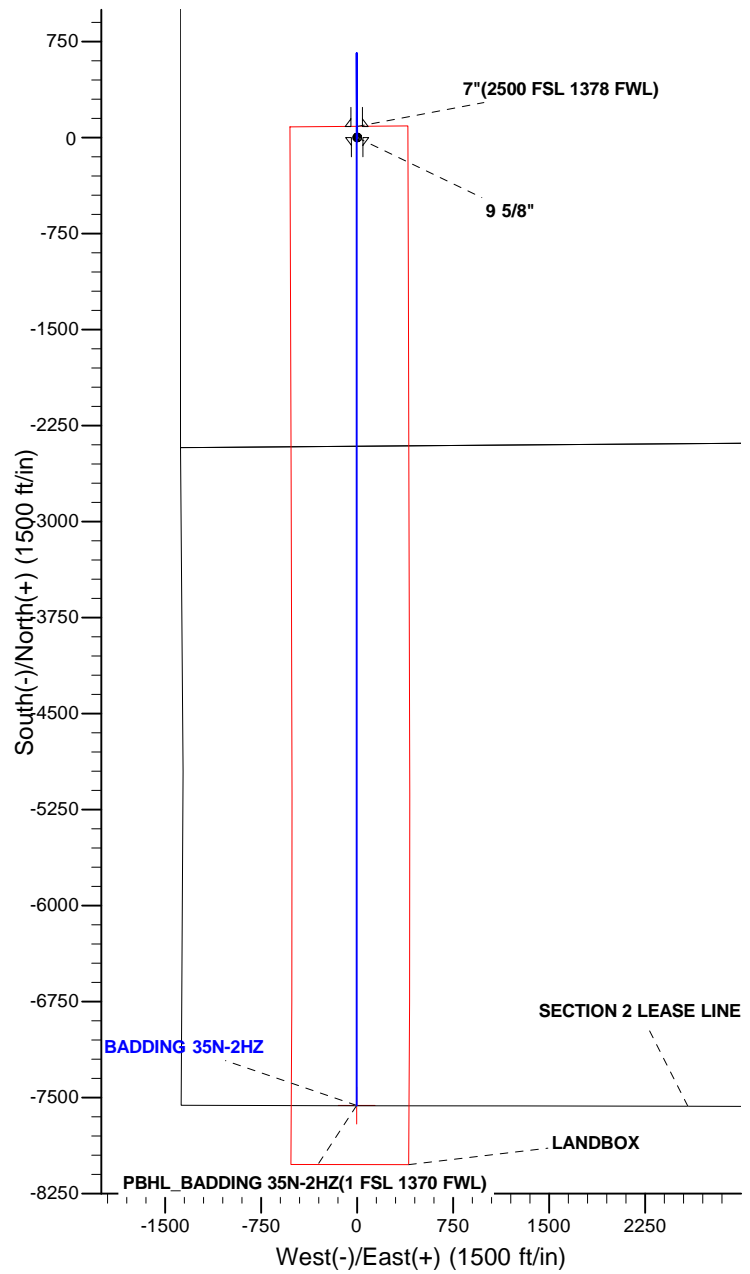
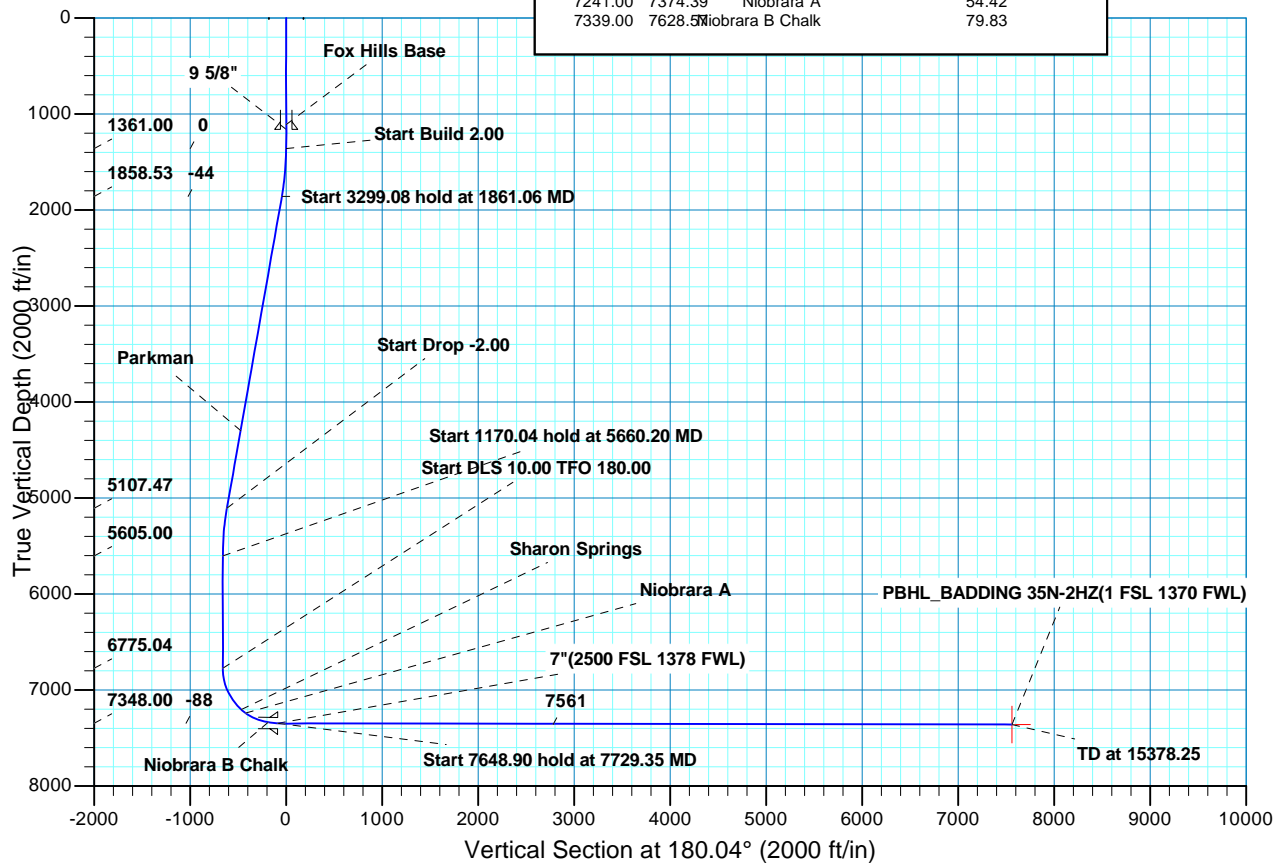


WELL DETAILS: BADDING 35N-2HZ											
GL 5103 & KB 17 @ 5120.00ft (ASSUMED)											
+N/-S		+E/-W		Northing		Easting		Latitude		Longitude	
0.00		0.00		1277952.70		3210159.29		40.0939280		-104.7487990	
SECTION DETAILS											
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
1361.00	0.00	0.00	1361.00	0.00	0.00	0.00	0.00	0.00			
1861.06	10.00	359.59	1858.53	43.53	-0.31	2.00	359.59	-43.53			
5160.14	10.00	359.59	5107.47	616.47	-4.44	0.00	0.00	-616.46			
5660.20	0.00	0.00	5605.00	660.00	-4.76	2.00	180.00	-660.00			
6830.24	0.00	0.00	6775.04	660.00	-4.76	0.00	0.00	-660.00			
7729.35	89.91	180.00	7348.00	87.94	-4.76	10.00	180.00	-87.94			
15378.25	89.91	180.00	7360.00	-7560.95	-4.76	0.00	0.00	7560.95	PBHL_BADDING 35N-2HZ(1 FSL 1370 FWL)		

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL	7360.00	-7560.95	-4.76	1270391.99	3210218.58	40.0731720	-104.7488160	Point	
- plan hits target center									
CASING DETAILS					FORMATION TOP DETAILS				
TVD	MD	Name	Size		TVDPath	MDPath	Formation	Inc	
1161.00	1161.00	9 5/8"	9.625		1111.00	1111.00	Fox Hills Base	0.00	
7348.00	7729.35	7"	7.000		4298.00	4338.18	Parkman	10.00	
					4637.00	4682.41	Sussex	10.00	
					7205.00	7316.51	Sharon Springs	48.63	
					7241.00	7374.39	Niobrara A	54.42	
					7339.00	7628.51	Niobrara B Chalk	79.83	





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

BADDING 22-35 PAD

BADDING 35N-2HZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

20 August, 2013

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well BADDING 35N-2HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Site:	BADDING 22-35 PAD	North Reference:	True
Well:	BADDING 35N-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	BADDING 22-35 PAD, NESW SEC. 35 T2N R66W			
Site Position:		Northing:	1,277,952.70 usft	Latitude: 40.0939280
From:	Lat/Long	Easting:	3,210,159.29 usft	Longitude: -104.7487990
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.49 °

Well	BADDING 35N-2HZ, 2411 FSL 1381 FWL			
Well Position	+N/-S	0.00 ft	Northing:	1,277,952.70 usft
	+E/-W	0.00 ft	Easting:	3,210,159.29 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 0.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	2013/08/14	8.57	66.72	52,671

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	180.04

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,361.00	0.00	0.00	1,361.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,861.06	10.00	359.59	1,858.53	43.53	-0.31	2.00	2.00	0.00	359.59	
5,160.14	10.00	359.59	5,107.47	616.47	-4.44	0.00	0.00	0.00	0.00	
5,660.20	0.00	0.00	5,605.00	660.00	-4.76	2.00	-2.00	0.00	180.00	
6,830.24	0.00	0.00	6,775.04	660.00	-4.76	0.00	0.00	0.00	0.00	
7,729.35	89.91	180.00	7,348.00	87.94	-4.76	10.00	10.00	20.02	180.00	
15,378.25	89.91	180.00	7,360.00	-7,560.95	-4.76	0.00	0.00	0.00	0.00	PBHL_BADDING 35N

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well BADDING 35N-2HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Site:	BADDING 22-35 PAD	North Reference:	True
Well:	BADDING 35N-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
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)
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
200.00	0.00	0.00	200.00	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
400.00	0.00	0.00	400.00	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
600.00	0.00	0.00	600.00	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
800.00	0.00	0.00	800.00	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
1,000.00	0.00	0.00	1,000.00	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
1,111.00	0.00	0.00	1,111.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills Base									
1,161.00	0.00	0.00	1,161.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,361.00	0.00	0.00	1,361.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,400.00	0.78	359.59	1,400.00	0.27	0.00	-0.27	2.00	2.00	0.00
1,500.00	2.78	359.59	1,499.95	3.37	-0.02	-3.37	2.00	2.00	0.00
1,600.00	4.78	359.59	1,599.72	9.96	-0.07	-9.96	2.00	2.00	0.00
1,700.00	6.78	359.59	1,699.21	20.03	-0.14	-20.03	2.00	2.00	0.00
1,800.00	8.78	359.59	1,798.28	33.57	-0.24	-33.57	2.00	2.00	0.00
1,861.06	10.00	359.59	1,858.53	43.53	-0.31	-43.53	2.00	2.00	0.00
Start 3299.08 hold at 1861.06 MD									
1,900.00	10.00	359.59	1,896.87	50.29	-0.36	-50.29	0.00	0.00	0.00
2,000.00	10.00	359.59	1,995.35	67.66	-0.49	-67.66	0.00	0.00	0.00
2,100.00	10.00	359.59	2,093.83	85.03	-0.61	-85.03	0.00	0.00	0.00
2,200.00	10.00	359.59	2,192.31	102.39	-0.74	-102.39	0.00	0.00	0.00
2,300.00	10.00	359.59	2,290.79	119.76	-0.86	-119.76	0.00	0.00	0.00
2,400.00	10.00	359.59	2,389.27	137.13	-0.99	-137.13	0.00	0.00	0.00
2,500.00	10.00	359.59	2,487.76	154.49	-1.11	-154.49	0.00	0.00	0.00
2,600.00	10.00	359.59	2,586.24	171.86	-1.24	-171.86	0.00	0.00	0.00
2,700.00	10.00	359.59	2,684.72	189.23	-1.36	-189.23	0.00	0.00	0.00
2,800.00	10.00	359.59	2,783.20	206.59	-1.49	-206.59	0.00	0.00	0.00
2,900.00	10.00	359.59	2,881.68	223.96	-1.61	-223.96	0.00	0.00	0.00
3,000.00	10.00	359.59	2,980.16	241.33	-1.74	-241.33	0.00	0.00	0.00
3,100.00	10.00	359.59	3,078.64	258.69	-1.86	-258.69	0.00	0.00	0.00
3,200.00	10.00	359.59	3,177.12	276.06	-1.99	-276.06	0.00	0.00	0.00
3,300.00	10.00	359.59	3,275.60	293.43	-2.12	-293.42	0.00	0.00	0.00
3,400.00	10.00	359.59	3,374.08	310.79	-2.24	-310.79	0.00	0.00	0.00
3,500.00	10.00	359.59	3,472.56	328.16	-2.37	-328.16	0.00	0.00	0.00
3,600.00	10.00	359.59	3,571.04	345.53	-2.49	-345.52	0.00	0.00	0.00
3,700.00	10.00	359.59	3,669.52	362.89	-2.62	-362.89	0.00	0.00	0.00
3,800.00	10.00	359.59	3,768.00	380.26	-2.74	-380.26	0.00	0.00	0.00
3,900.00	10.00	359.59	3,866.48	397.62	-2.87	-397.62	0.00	0.00	0.00
4,000.00	10.00	359.59	3,964.96	414.99	-2.99	-414.99	0.00	0.00	0.00
4,100.00	10.00	359.59	4,063.44	432.36	-3.12	-432.36	0.00	0.00	0.00
4,200.00	10.00	359.59	4,161.92	449.72	-3.24	-449.72	0.00	0.00	0.00
4,300.00	10.00	359.59	4,260.40	467.09	-3.37	-467.09	0.00	0.00	0.00
4,338.18	10.00	359.59	4,298.00	473.72	-3.41	-473.72	0.00	0.00	0.00
Parkman									

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well BADDING 35N-2HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Site:	BADDING 22-35 PAD	North Reference:	True
Well:	BADDING 35N-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
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)
4,400.00	10.00	359.59	4,358.88	484.46	-3.49	-484.46	0.00	0.00	0.00
4,500.00	10.00	359.59	4,457.36	501.82	-3.62	-501.82	0.00	0.00	0.00
4,600.00	10.00	359.59	4,555.84	519.19	-3.74	-519.19	0.00	0.00	0.00
4,682.41	10.00	359.59	4,637.00	533.50	-3.85	-533.50	0.00	0.00	0.00
Sussex									
4,700.00	10.00	359.59	4,654.32	536.56	-3.87	-536.55	0.00	0.00	0.00
4,800.00	10.00	359.59	4,752.80	553.92	-3.99	-553.92	0.00	0.00	0.00
4,900.00	10.00	359.59	4,851.28	571.29	-4.12	-571.29	0.00	0.00	0.00
5,000.00	10.00	359.59	4,949.77	588.66	-4.24	-588.65	0.00	0.00	0.00
5,100.00	10.00	359.59	5,048.25	606.02	-4.37	-606.02	0.00	0.00	0.00
5,160.14	10.00	359.59	5,107.47	616.47	-4.44	-616.46	0.00	0.00	0.00
Start Drop -2.00									
5,200.00	9.20	359.59	5,146.77	623.12	-4.49	-623.11	2.00	-2.00	0.00
5,300.00	7.20	359.59	5,245.74	637.39	-4.59	-637.38	2.00	-2.00	0.00
5,400.00	5.20	359.59	5,345.15	648.19	-4.67	-648.19	2.00	-2.00	0.00
5,500.00	3.20	359.59	5,444.88	655.52	-4.73	-655.52	2.00	-2.00	0.00
5,600.00	1.20	359.59	5,544.80	659.37	-4.75	-659.36	2.00	-2.00	0.00
5,660.20	0.00	0.00	5,605.00	660.00	-4.76	-660.00	2.00	-2.00	0.00
Start 1170.04 hold at 5660.20 MD									
5,700.00	0.00	0.00	5,644.80	660.00	-4.76	-660.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,744.80	660.00	-4.76	-660.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,844.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,944.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,044.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,144.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,244.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,344.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,444.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,544.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,644.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,744.80	660.00	-4.76	-660.00	0.00	0.00	0.00
6,830.24	0.00	0.00	6,775.04	660.00	-4.76	-660.00	0.00	0.00	0.00
Start DLS 10.00 TFO 180.00									
6,900.00	6.98	180.00	6,844.62	655.76	-4.76	-655.76	10.00	10.00	0.00
7,000.00	16.98	180.00	6,942.32	635.04	-4.76	-635.03	10.00	10.00	0.00
7,100.00	26.98	180.00	7,034.94	597.66	-4.76	-597.66	10.00	10.00	0.00
7,200.00	36.98	180.00	7,119.66	544.77	-4.76	-544.77	10.00	10.00	0.00
7,300.00	46.98	180.00	7,193.91	477.98	-4.76	-477.97	10.00	10.00	0.00
7,316.51	48.63	180.00	7,205.00	465.74	-4.76	-465.74	10.00	10.00	0.00
Sharon Springs									
7,374.39	54.42	180.00	7,241.00	420.45	-4.76	-420.45	10.00	10.00	0.00
Niobrara A									
7,400.00	56.98	180.00	7,255.43	399.30	-4.76	-399.30	10.00	10.00	0.00
7,500.00	66.98	180.00	7,302.36	311.14	-4.76	-311.14	10.00	10.00	0.00
7,600.00	76.98	180.00	7,333.26	216.17	-4.76	-216.16	10.00	10.00	0.00
7,628.57	79.83	180.00	7,339.00	188.18	-4.76	-188.18	10.00	10.00	0.00
Niobrara B Chalk									
7,700.00	86.98	180.00	7,347.20	117.27	-4.76	-117.27	10.00	10.00	0.00
7,729.35	89.91	180.00	7,348.00	87.94	-4.76	-87.93	10.00	10.00	0.00
Start 7648.90 hold at 7729.35 MD - 7"(2500 FSL 1378 FWL)									
7,800.00	89.91	180.00	7,348.11	17.29	-4.76	-17.28	0.00	0.00	0.00
7,900.00	89.91	180.00	7,348.27	-82.71	-4.76	82.72	0.00	0.00	0.00
8,000.00	89.91	180.00	7,348.42	-182.71	-4.76	182.72	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well BADDING 35N-2HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Site:	BADDING 22-35 PAD	North Reference:	True
Well:	BADDING 35N-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
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)
8,100.00	89.91	180.00	7,348.58	-282.71	-4.76	282.72	0.00	0.00	0.00
8,200.00	89.91	180.00	7,348.74	-382.71	-4.76	382.72	0.00	0.00	0.00
8,300.00	89.91	180.00	7,348.89	-482.71	-4.76	482.72	0.00	0.00	0.00
8,400.00	89.91	180.00	7,349.05	-582.71	-4.76	582.72	0.00	0.00	0.00
8,500.00	89.91	180.00	7,349.21	-682.71	-4.76	682.72	0.00	0.00	0.00
8,600.00	89.91	180.00	7,349.36	-782.71	-4.76	782.72	0.00	0.00	0.00
8,700.00	89.91	180.00	7,349.52	-882.71	-4.76	882.72	0.00	0.00	0.00
8,800.00	89.91	180.00	7,349.68	-982.71	-4.76	982.72	0.00	0.00	0.00
8,900.00	89.91	180.00	7,349.83	-1,082.71	-4.76	1,082.72	0.00	0.00	0.00
9,000.00	89.91	180.00	7,349.99	-1,182.71	-4.76	1,182.71	0.00	0.00	0.00
9,100.00	89.91	180.00	7,350.15	-1,282.71	-4.76	1,282.71	0.00	0.00	0.00
9,200.00	89.91	180.00	7,350.31	-1,382.71	-4.76	1,382.71	0.00	0.00	0.00
9,300.00	89.91	180.00	7,350.46	-1,482.71	-4.76	1,482.71	0.00	0.00	0.00
9,400.00	89.91	180.00	7,350.62	-1,582.71	-4.76	1,582.71	0.00	0.00	0.00
9,500.00	89.91	180.00	7,350.78	-1,682.71	-4.76	1,682.71	0.00	0.00	0.00
9,600.00	89.91	180.00	7,350.93	-1,782.71	-4.76	1,782.71	0.00	0.00	0.00
9,700.00	89.91	180.00	7,351.09	-1,882.71	-4.76	1,882.71	0.00	0.00	0.00
9,800.00	89.91	180.00	7,351.25	-1,982.71	-4.76	1,982.71	0.00	0.00	0.00
9,900.00	89.91	180.00	7,351.40	-2,082.71	-4.76	2,082.71	0.00	0.00	0.00
10,000.00	89.91	180.00	7,351.56	-2,182.71	-4.76	2,182.71	0.00	0.00	0.00
10,100.00	89.91	180.00	7,351.72	-2,282.71	-4.76	2,282.71	0.00	0.00	0.00
10,200.00	89.91	180.00	7,351.87	-2,382.71	-4.76	2,382.71	0.00	0.00	0.00
10,300.00	89.91	180.00	7,352.03	-2,482.71	-4.76	2,482.71	0.00	0.00	0.00
10,400.00	89.91	180.00	7,352.19	-2,582.71	-4.76	2,582.71	0.00	0.00	0.00
10,500.00	89.91	180.00	7,352.35	-2,682.71	-4.76	2,682.71	0.00	0.00	0.00
10,600.00	89.91	180.00	7,352.50	-2,782.71	-4.76	2,782.71	0.00	0.00	0.00
10,700.00	89.91	180.00	7,352.66	-2,882.71	-4.76	2,882.71	0.00	0.00	0.00
10,800.00	89.91	180.00	7,352.82	-2,982.71	-4.76	2,982.71	0.00	0.00	0.00
10,900.00	89.91	180.00	7,352.97	-3,082.71	-4.76	3,082.71	0.00	0.00	0.00
11,000.00	89.91	180.00	7,353.13	-3,182.71	-4.76	3,182.71	0.00	0.00	0.00
11,100.00	89.91	180.00	7,353.29	-3,282.71	-4.76	3,282.71	0.00	0.00	0.00
11,200.00	89.91	180.00	7,353.44	-3,382.71	-4.76	3,382.71	0.00	0.00	0.00
11,300.00	89.91	180.00	7,353.60	-3,482.71	-4.76	3,482.71	0.00	0.00	0.00
11,400.00	89.91	180.00	7,353.76	-3,582.71	-4.76	3,582.71	0.00	0.00	0.00
11,500.00	89.91	180.00	7,353.91	-3,682.71	-4.76	3,682.71	0.00	0.00	0.00
11,600.00	89.91	180.00	7,354.07	-3,782.71	-4.76	3,782.71	0.00	0.00	0.00
11,700.00	89.91	180.00	7,354.23	-3,882.71	-4.76	3,882.71	0.00	0.00	0.00
11,800.00	89.91	180.00	7,354.39	-3,982.71	-4.76	3,982.71	0.00	0.00	0.00
11,900.00	89.91	180.00	7,354.54	-4,082.71	-4.76	4,082.71	0.00	0.00	0.00
12,000.00	89.91	180.00	7,354.70	-4,182.71	-4.76	4,182.71	0.00	0.00	0.00
12,100.00	89.91	180.00	7,354.86	-4,282.71	-4.76	4,282.71	0.00	0.00	0.00
12,200.00	89.91	180.00	7,355.01	-4,382.71	-4.76	4,382.71	0.00	0.00	0.00
12,300.00	89.91	180.00	7,355.17	-4,482.71	-4.76	4,482.71	0.00	0.00	0.00
12,400.00	89.91	180.00	7,355.33	-4,582.71	-4.76	4,582.71	0.00	0.00	0.00
12,500.00	89.91	180.00	7,355.48	-4,682.71	-4.76	4,682.71	0.00	0.00	0.00
12,600.00	89.91	180.00	7,355.64	-4,782.71	-4.76	4,782.71	0.00	0.00	0.00
12,700.00	89.91	180.00	7,355.80	-4,882.71	-4.76	4,882.71	0.00	0.00	0.00
12,800.00	89.91	180.00	7,355.95	-4,982.71	-4.76	4,982.71	0.00	0.00	0.00
12,900.00	89.91	180.00	7,356.11	-5,082.71	-4.76	5,082.71	0.00	0.00	0.00
13,000.00	89.91	180.00	7,356.27	-5,182.71	-4.76	5,182.71	0.00	0.00	0.00
13,100.00	89.91	180.00	7,356.43	-5,282.71	-4.76	5,282.71	0.00	0.00	0.00
13,200.00	89.91	180.00	7,356.58	-5,382.71	-4.76	5,382.71	0.00	0.00	0.00
13,300.00	89.91	180.00	7,356.74	-5,482.71	-4.76	5,482.71	0.00	0.00	0.00
13,400.00	89.91	180.00	7,356.90	-5,582.71	-4.76	5,582.71	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well BADDING 35N-2HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Site:	BADDING 22-35 PAD	North Reference:	True
Well:	BADDING 35N-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
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)	
13,500.00	89.91	180.00	7,357.05	-5,682.71	-4.76	5,682.71	0.00	0.00	0.00	
13,600.00	89.91	180.00	7,357.21	-5,782.71	-4.76	5,782.71	0.00	0.00	0.00	
13,700.00	89.91	180.00	7,357.37	-5,882.71	-4.76	5,882.71	0.00	0.00	0.00	
13,800.00	89.91	180.00	7,357.52	-5,982.71	-4.76	5,982.71	0.00	0.00	0.00	
13,900.00	89.91	180.00	7,357.68	-6,082.71	-4.76	6,082.71	0.00	0.00	0.00	
14,000.00	89.91	180.00	7,357.84	-6,182.71	-4.76	6,182.71	0.00	0.00	0.00	
14,100.00	89.91	180.00	7,357.99	-6,282.71	-4.76	6,282.71	0.00	0.00	0.00	
14,200.00	89.91	180.00	7,358.15	-6,382.71	-4.76	6,382.71	0.00	0.00	0.00	
14,300.00	89.91	180.00	7,358.31	-6,482.71	-4.76	6,482.71	0.00	0.00	0.00	
14,400.00	89.91	180.00	7,358.47	-6,582.71	-4.76	6,582.71	0.00	0.00	0.00	
14,500.00	89.91	180.00	7,358.62	-6,682.71	-4.76	6,682.71	0.00	0.00	0.00	
14,600.00	89.91	180.00	7,358.78	-6,782.71	-4.76	6,782.71	0.00	0.00	0.00	
14,700.00	89.91	180.00	7,358.94	-6,882.71	-4.76	6,882.71	0.00	0.00	0.00	
14,800.00	89.91	180.00	7,359.09	-6,982.71	-4.76	6,982.71	0.00	0.00	0.00	
14,900.00	89.91	180.00	7,359.25	-7,082.70	-4.76	7,082.71	0.00	0.00	0.00	
15,000.00	89.91	180.00	7,359.41	-7,182.70	-4.76	7,182.71	0.00	0.00	0.00	
15,100.00	89.91	180.00	7,359.56	-7,282.70	-4.76	7,282.71	0.00	0.00	0.00	
15,200.00	89.91	180.00	7,359.72	-7,382.70	-4.76	7,382.71	0.00	0.00	0.00	
15,300.00	89.91	180.00	7,359.88	-7,482.70	-4.76	7,482.71	0.00	0.00	0.00	
15,378.25	89.91	180.00	7,360.00	-7,560.95	-4.76	7,560.95	0.00	0.00	0.00	
TD at 15378.25 - PBHL_BADDING 35N-2HZ(1 FSL 1370 FWL)										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_BADDING 35N-2	0.00	0.00	7,360.00	-7,560.95	-4.76	1,270,391.99	3,210,218.58	40.0731720	-104.7488160
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,161.00	1,161.00	9 5/8"	9.625	12.250	
7,729.35	7,348.00	7"(2500 FSL 1378 FWL)	7.000	7.500	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,111.00	1,111.00	Fox Hills Base				
4,338.18	4,298.00	Parkman				
4,682.41	4,637.00	Sussex				
7,316.51	7,205.00	Sharon Springs				
7,374.39	7,241.00	Niobrara A				
7,628.57	7,339.00	Niobrara B Chalk				

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well BADDING 35N-2HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5103 & KB 17 @ 5120.00ft (ASSUMED)
Site:	BADDING 22-35 PAD	North Reference:	True
Well:	BADDING 35N-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,361.00	1,361.00	0.00	0.00	Start Build 2.00
1,861.06	1,858.53	43.53	-0.31	Start 3299.08 hold at 1861.06 MD
5,160.14	5,107.47	616.47	-4.44	Start Drop -2.00
5,660.20	5,605.00	660.00	-4.76	Start 1170.04 hold at 5660.20 MD
6,830.24	6,775.04	660.00	-4.76	Start DLS 10.00 TFO 180.00
7,729.35	7,348.00	87.94	-4.76	Start 7648.90 hold at 7729.35 MD
15,378.25	7,360.00	-7,560.95	-4.76	TD at 15378.25