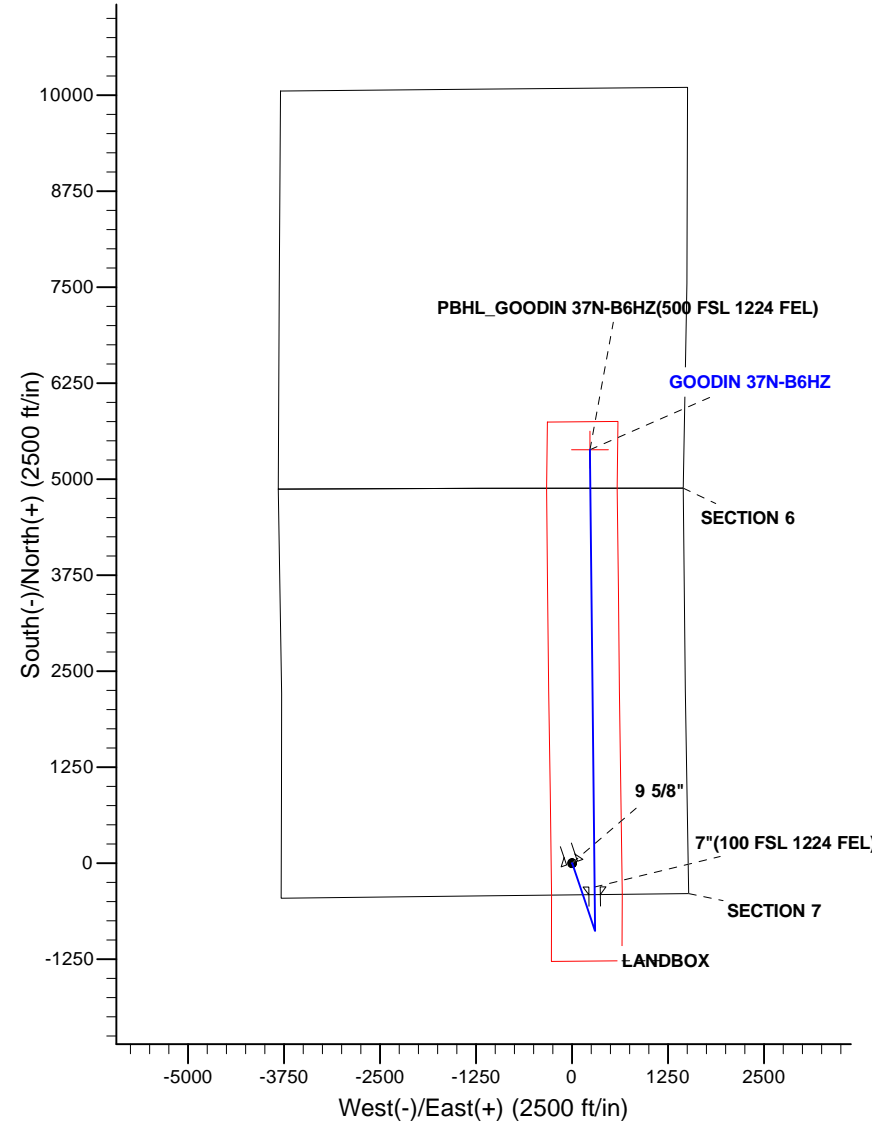
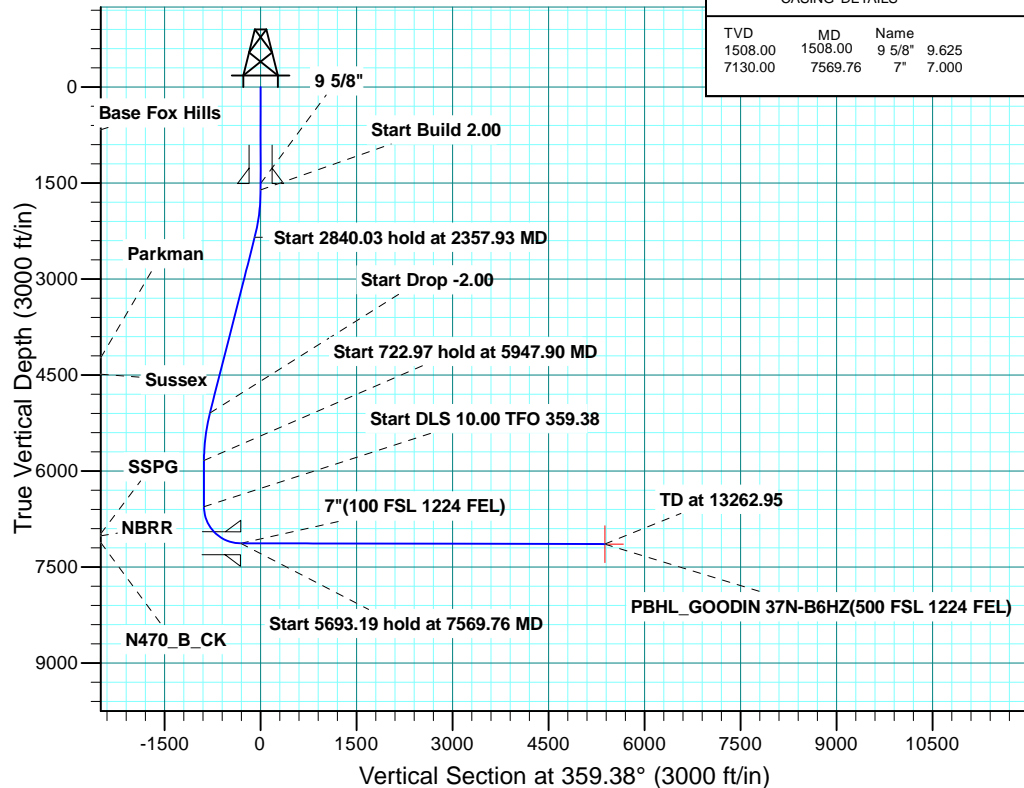


WELL DETAILS: GOODIN 37N-B6HZ									
GL 4980 & KB 17 @ 4997.00ft (ASSUMED)									
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
	0.00	0.00	1265651.10	3223233.77	40.0598459	-104.7024630			
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1608.00	0.00	0.00	1608.00	0.00	0.00	0.00	0.00	0.00	0.00
2357.93	15.00	161.29	2349.40	-92.44	31.31	2.00	161.29	-92.77	
5197.96	15.00	161.29	5092.67	-788.57	267.13	0.00	0.00	-791.42	
5947.90	0.00	0.00	5834.07	-881.01	298.44	2.00	180.00	-884.19	
6670.87	0.00	0.00	6557.04	-881.01	298.44	0.00	0.00	-884.19	
7569.76	89.89	359.38	7130.00	-309.19	292.30	10.00	359.38	-312.34	
13262.96	89.89	359.38	7141.00	5383.67	231.15	0.00	0.00	5380.85	PBHL_GOODIN 37N-B6HZ(500 FSL 1224 FEL)
DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL 7141.00	5383.67	231.15	1271036.62	3223416.50	40.0746250	-104.7016370		Point	
- plan hits target center									

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
Location: SECTION 6 T1N R65W
System Datum: Mean Sea Level

FORMATION TOP DETAILS				
TVDPath	MDPath	Formation	Inc	
667.00	667.00	Base Fox Hills	0.00	
4229.00	4303.83	Parkman	15.00	
4487.00	4570.93	Sussex	15.00	
6979.00	7145.17	SSPG	47.43	
7013.00	7198.18	NBRR	52.73	
7117.00	7448.59	N470_B_CK	77.77	

CASING DETAILS				
TVD	MD	Name		
1508.00	1508.00	9 5/8"	9.625	
7130.00	7569.76	7"	7.000	





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

GOODIN 15-7HZ Pad

GOODIN 37N-B6HZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

08 September, 2014

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GOODIN 37N-B6HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Site:	GOODIN 15-7HZ Pad	North Reference:	True
Well:	GOODIN 37N-B6HZ	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	GOODIN 15-7HZ Pad, SECTION 6 T1N R65W				
Site Position:	Northing:	1,265,650.80 usft	Latitude:	40.0598470	
From:	Lat/Long	Easting:	3,223,158.76 usft	Longitude:	-104.7027310
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.52 °

Well	GOODIN 37N-B6HZ, 412 FSL 1510' FEL					
Well Position	+N/-S	-0.37 ft	Northing:	1,265,651.11 usft	Latitude:	40.0598460
	+E/-W	75.02 ft	Easting:	3,223,233.78 usft	Longitude:	-104.7024630
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,980.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	09/08/14	8.46	66.67	52,511

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	359.38

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	
1,608.00	0.00	0.00	1,608.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,357.93	15.00	161.29	2,349.40	-92.44	31.31	2.00	2.00	0.00	161.29	
5,197.96	15.00	161.29	5,092.67	-788.57	267.13	0.00	0.00	0.00	0.00	
5,947.90	0.00	0.00	5,834.07	-881.01	298.44	2.00	-2.00	0.00	180.00	
6,670.87	0.00	0.00	6,557.04	-881.01	298.44	0.00	0.00	0.00	0.00	
7,569.76	89.89	359.38	7,130.00	-309.19	292.30	10.00	10.00	-0.07	359.38	
13,262.95	89.89	359.38	7,141.00	5,383.66	231.15	0.00	0.00	0.00	0.00	PBHL_GOODIN 37N-

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GOODIN 37N-B6HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Site:	GOODIN 15-7HZ Pad	North Reference:	True
Well:	GOODIN 37N-B6HZ	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	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
667.00	0.00	0.00	667.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Fox Hills										
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
1,200.00	0.00	0.00	1,200.00	0.00	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	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,508.00	0.00	0.00	1,508.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"										
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,608.00	0.00	0.00	1,608.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
1,700.00	1.84	161.29	1,699.98	-1.40	0.47	-1.40	2.00	2.00	0.00	0.00
1,800.00	3.84	161.29	1,799.86	-6.09	2.06	-6.11	2.00	2.00	0.00	0.00
1,900.00	5.84	161.29	1,899.49	-14.08	4.77	-14.13	2.00	2.00	0.00	0.00
2,000.00	7.84	161.29	1,998.78	-25.36	8.59	-25.45	2.00	2.00	0.00	0.00
2,100.00	9.84	161.29	2,097.59	-39.92	13.52	-40.06	2.00	2.00	0.00	0.00
2,200.00	11.84	161.29	2,195.80	-57.73	19.56	-57.94	2.00	2.00	0.00	0.00
2,300.00	13.84	161.29	2,293.29	-78.77	26.68	-79.06	2.00	2.00	0.00	0.00
2,357.93	15.00	161.29	2,349.40	-92.44	31.31	-92.77	2.00	2.00	0.00	0.00
Start 2840.03 hold at 2357.93 MD										
2,400.00	15.00	161.29	2,390.03	-102.75	34.81	-103.12	0.00	0.00	0.00	0.00
2,500.00	15.00	161.29	2,486.62	-127.26	43.11	-127.72	0.00	0.00	0.00	0.00
2,600.00	15.00	161.29	2,583.22	-151.77	51.41	-152.32	0.00	0.00	0.00	0.00
2,700.00	15.00	161.29	2,679.81	-176.28	59.72	-176.92	0.00	0.00	0.00	0.00
2,800.00	15.00	161.29	2,776.40	-200.80	68.02	-201.52	0.00	0.00	0.00	0.00
2,900.00	15.00	161.29	2,873.00	-225.31	76.32	-226.12	0.00	0.00	0.00	0.00
3,000.00	15.00	161.29	2,969.59	-249.82	84.63	-250.72	0.00	0.00	0.00	0.00
3,100.00	15.00	161.29	3,066.18	-274.33	92.93	-275.32	0.00	0.00	0.00	0.00
3,200.00	15.00	161.29	3,162.78	-298.84	101.23	-299.92	0.00	0.00	0.00	0.00
3,300.00	15.00	161.29	3,259.37	-323.35	109.54	-324.52	0.00	0.00	0.00	0.00
3,400.00	15.00	161.29	3,355.96	-347.86	117.84	-349.12	0.00	0.00	0.00	0.00
3,500.00	15.00	161.29	3,452.56	-372.38	126.14	-373.72	0.00	0.00	0.00	0.00
3,600.00	15.00	161.29	3,549.15	-396.89	134.44	-398.32	0.00	0.00	0.00	0.00
3,700.00	15.00	161.29	3,645.74	-421.40	142.75	-422.92	0.00	0.00	0.00	0.00
3,800.00	15.00	161.29	3,742.34	-445.91	151.05	-447.52	0.00	0.00	0.00	0.00
3,900.00	15.00	161.29	3,838.93	-470.42	159.35	-472.12	0.00	0.00	0.00	0.00
4,000.00	15.00	161.29	3,935.52	-494.93	167.66	-496.72	0.00	0.00	0.00	0.00
4,100.00	15.00	161.29	4,032.12	-519.44	175.96	-521.32	0.00	0.00	0.00	0.00
4,200.00	15.00	161.29	4,128.71	-543.96	184.26	-545.92	0.00	0.00	0.00	0.00
4,300.00	15.00	161.29	4,225.30	-568.47	192.57	-570.52	0.00	0.00	0.00	0.00
4,303.83	15.00	161.29	4,229.00	-569.41	192.88	-571.46	0.00	0.00	0.00	0.00
Parkman										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GOODIN 37N-B6HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Site:	GOODIN 15-7HZ Pad	North Reference:	True
Well:	GOODIN 37N-B6HZ	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	15.00	161.29	4,321.89	-592.98	200.87	-595.12	0.00	0.00	0.00
4,500.00	15.00	161.29	4,418.49	-617.49	209.17	-619.72	0.00	0.00	0.00
4,570.93	15.00	161.29	4,487.00	-634.88	215.06	-637.17	0.00	0.00	0.00
Sussex									
4,600.00	15.00	161.29	4,515.08	-642.00	217.48	-644.32	0.00	0.00	0.00
4,700.00	15.00	161.29	4,611.67	-666.51	225.78	-668.92	0.00	0.00	0.00
4,800.00	15.00	161.29	4,708.27	-691.03	234.08	-693.52	0.00	0.00	0.00
4,900.00	15.00	161.29	4,804.86	-715.54	242.39	-718.12	0.00	0.00	0.00
5,000.00	15.00	161.29	4,901.45	-740.05	250.69	-742.72	0.00	0.00	0.00
5,100.00	15.00	161.29	4,998.05	-764.56	258.99	-767.32	0.00	0.00	0.00
5,197.96	15.00	161.29	5,092.67	-788.57	267.13	-791.42	0.00	0.00	0.00
Start Drop -2.00									
5,200.00	14.96	161.29	5,094.64	-789.07	267.30	-791.92	2.00	-2.00	0.00
5,300.00	12.96	161.29	5,191.68	-811.91	275.03	-814.84	2.00	-2.00	0.00
5,400.00	10.96	161.29	5,289.51	-831.54	281.68	-834.54	2.00	-2.00	0.00
5,500.00	8.96	161.29	5,388.00	-847.92	287.23	-850.97	2.00	-2.00	0.00
5,600.00	6.96	161.29	5,487.03	-861.03	291.67	-864.13	2.00	-2.00	0.00
5,700.00	4.96	161.29	5,586.48	-870.86	295.00	-874.00	2.00	-2.00	0.00
5,800.00	2.96	161.29	5,686.24	-877.40	297.22	-880.56	2.00	-2.00	0.00
5,900.00	0.96	161.29	5,786.18	-880.63	298.31	-883.81	2.00	-2.00	0.00
5,947.90	0.00	0.00	5,834.07	-881.01	298.44	-884.19	2.00	-2.00	0.00
Start 722.97 hold at 5947.90 MD									
6,000.00	0.00	0.00	5,886.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,100.00	0.00	0.00	5,986.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,200.00	0.00	0.00	6,086.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,300.00	0.00	0.00	6,186.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,400.00	0.00	0.00	6,286.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,500.00	0.00	0.00	6,386.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,600.00	0.00	0.00	6,486.17	-881.01	298.44	-884.19	0.00	0.00	0.00
6,670.87	0.00	0.00	6,557.04	-881.01	298.44	-884.19	0.00	0.00	0.00
Start DLS 10.00 TFO 359.38									
6,700.00	2.91	359.38	6,586.16	-880.27	298.43	-883.45	10.00	10.00	0.00
6,800.00	12.91	359.38	6,685.08	-866.52	298.28	-869.70	10.00	10.00	0.00
6,900.00	22.91	359.38	6,780.12	-835.80	297.95	-838.98	10.00	10.00	0.00
7,000.00	32.91	359.38	6,868.37	-789.05	297.45	-792.22	10.00	10.00	0.00
7,100.00	42.91	359.38	6,947.16	-727.69	296.79	-730.85	10.00	10.00	0.00
7,145.17	47.43	359.38	6,979.00	-695.66	296.45	-698.83	10.00	10.00	0.00
SSPG									
7,198.18	52.73	359.38	7,013.00	-655.03	296.01	-658.19	10.00	10.00	0.00
NBRR									
7,200.00	52.91	359.38	7,014.10	-653.57	296.00	-656.74	10.00	10.00	0.00
7,300.00	62.91	359.38	7,067.16	-568.96	295.09	-572.12	10.00	10.00	0.00
7,400.00	72.91	359.38	7,104.71	-476.42	294.09	-479.57	10.00	10.00	0.00
7,448.59	77.77	359.38	7,117.00	-429.43	293.59	-432.58	10.00	10.00	0.00
N470_B_CK									
7,500.00	82.91	359.38	7,125.62	-378.77	293.05	-381.92	10.00	10.00	0.00
7,569.76	89.89	359.38	7,130.00	-309.19	292.30	-312.34	10.00	10.00	0.00
Start 5693.19 hold at 7569.76 MD - 7"(100 FSL 1224 FEL)									
7,600.00	89.89	359.38	7,130.06	-278.95	291.97	-282.10	0.00	0.00	0.00
7,700.00	89.89	359.38	7,130.25	-178.96	290.90	-182.10	0.00	0.00	0.00
7,800.00	89.89	359.38	7,130.44	-78.96	289.83	-82.10	0.00	0.00	0.00
7,900.00	89.89	359.38	7,130.64	21.03	288.75	17.90	0.00	0.00	0.00
8,000.00	89.89	359.38	7,130.83	121.02	287.68	117.90	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GOODIN 37N-B6HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Site:	GOODIN 15-7HZ Pad	North Reference:	True
Well:	GOODIN 37N-B6HZ	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	89.89	359.38	7,131.02	221.02	286.60	217.90	0.00	0.00	0.00
8,200.00	89.89	359.38	7,131.21	321.01	285.53	317.90	0.00	0.00	0.00
8,300.00	89.89	359.38	7,131.41	421.01	284.46	417.90	0.00	0.00	0.00
8,400.00	89.89	359.38	7,131.60	521.00	283.38	517.90	0.00	0.00	0.00
8,500.00	89.89	359.38	7,131.79	620.99	282.31	617.90	0.00	0.00	0.00
8,600.00	89.89	359.38	7,131.99	720.99	281.23	717.90	0.00	0.00	0.00
8,700.00	89.89	359.38	7,132.18	820.98	280.16	817.90	0.00	0.00	0.00
8,800.00	89.89	359.38	7,132.37	920.98	279.09	917.90	0.00	0.00	0.00
8,900.00	89.89	359.38	7,132.57	1,020.97	278.01	1,017.90	0.00	0.00	0.00
9,000.00	89.89	359.38	7,132.76	1,120.96	276.94	1,117.90	0.00	0.00	0.00
9,100.00	89.89	359.38	7,132.95	1,220.96	275.86	1,217.90	0.00	0.00	0.00
9,200.00	89.89	359.38	7,133.15	1,320.95	274.79	1,317.90	0.00	0.00	0.00
9,300.00	89.89	359.38	7,133.34	1,420.95	273.72	1,417.90	0.00	0.00	0.00
9,400.00	89.89	359.38	7,133.53	1,520.94	272.64	1,517.90	0.00	0.00	0.00
9,500.00	89.89	359.38	7,133.73	1,620.93	271.57	1,617.90	0.00	0.00	0.00
9,600.00	89.89	359.38	7,133.92	1,720.93	270.49	1,717.90	0.00	0.00	0.00
9,700.00	89.89	359.38	7,134.11	1,820.92	269.42	1,817.90	0.00	0.00	0.00
9,800.00	89.89	359.38	7,134.31	1,920.92	268.35	1,917.90	0.00	0.00	0.00
9,900.00	89.89	359.38	7,134.50	2,020.91	267.27	2,017.90	0.00	0.00	0.00
10,000.00	89.89	359.38	7,134.69	2,120.90	266.20	2,117.90	0.00	0.00	0.00
10,100.00	89.89	359.38	7,134.89	2,220.90	265.12	2,217.90	0.00	0.00	0.00
10,200.00	89.89	359.38	7,135.08	2,320.89	264.05	2,317.90	0.00	0.00	0.00
10,300.00	89.89	359.38	7,135.27	2,420.89	262.98	2,417.90	0.00	0.00	0.00
10,400.00	89.89	359.38	7,135.47	2,520.88	261.90	2,517.90	0.00	0.00	0.00
10,500.00	89.89	359.38	7,135.66	2,620.87	260.83	2,617.90	0.00	0.00	0.00
10,600.00	89.89	359.38	7,135.85	2,720.87	259.75	2,717.90	0.00	0.00	0.00
10,700.00	89.89	359.38	7,136.05	2,820.86	258.68	2,817.90	0.00	0.00	0.00
10,800.00	89.89	359.38	7,136.24	2,920.86	257.61	2,917.90	0.00	0.00	0.00
10,900.00	89.89	359.38	7,136.43	3,020.85	256.53	3,017.90	0.00	0.00	0.00
11,000.00	89.89	359.38	7,136.63	3,120.84	255.46	3,117.90	0.00	0.00	0.00
11,100.00	89.89	359.38	7,136.82	3,220.84	254.38	3,217.90	0.00	0.00	0.00
11,200.00	89.89	359.38	7,137.01	3,320.83	253.31	3,317.90	0.00	0.00	0.00
11,300.00	89.89	359.38	7,137.21	3,420.83	252.24	3,417.90	0.00	0.00	0.00
11,400.00	89.89	359.38	7,137.40	3,520.82	251.16	3,517.90	0.00	0.00	0.00
11,500.00	89.89	359.38	7,137.59	3,620.81	250.09	3,617.90	0.00	0.00	0.00
11,600.00	89.89	359.38	7,137.79	3,720.81	249.01	3,717.90	0.00	0.00	0.00
11,700.00	89.89	359.38	7,137.98	3,820.80	247.94	3,817.90	0.00	0.00	0.00
11,800.00	89.89	359.38	7,138.17	3,920.80	246.87	3,917.90	0.00	0.00	0.00
11,900.00	89.89	359.38	7,138.37	4,020.79	245.79	4,017.90	0.00	0.00	0.00
12,000.00	89.89	359.38	7,138.56	4,120.79	244.72	4,117.90	0.00	0.00	0.00
12,100.00	89.89	359.38	7,138.75	4,220.78	243.64	4,217.90	0.00	0.00	0.00
12,200.00	89.89	359.38	7,138.95	4,320.77	242.57	4,317.90	0.00	0.00	0.00
12,300.00	89.89	359.38	7,139.14	4,420.77	241.50	4,417.90	0.00	0.00	0.00
12,400.00	89.89	359.38	7,139.33	4,520.76	240.42	4,517.90	0.00	0.00	0.00
12,500.00	89.89	359.38	7,139.53	4,620.76	239.35	4,617.89	0.00	0.00	0.00
12,600.00	89.89	359.38	7,139.72	4,720.75	238.27	4,717.89	0.00	0.00	0.00
12,700.00	89.89	359.38	7,139.91	4,820.74	237.20	4,817.89	0.00	0.00	0.00
12,800.00	89.89	359.38	7,140.11	4,920.74	236.13	4,917.89	0.00	0.00	0.00
12,900.00	89.89	359.38	7,140.30	5,020.73	235.05	5,017.89	0.00	0.00	0.00
13,000.00	89.89	359.38	7,140.49	5,120.73	233.98	5,117.89	0.00	0.00	0.00
13,100.00	89.89	359.38	7,140.69	5,220.72	232.90	5,217.89	0.00	0.00	0.00
13,200.00	89.89	359.38	7,140.88	5,320.71	231.83	5,317.89	0.00	0.00	0.00
13,262.95	89.89	359.38	7,141.00	5,383.66	231.15	5,380.85	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GOODIN 37N-B6HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4980 & KB 17 @ 4997.00ft (ASSUMED)
Site:	GOODIN 15-7HZ Pad	North Reference:	True
Well:	GOODIN 37N-B6HZ	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)
TD at 13262.95 - PBHL_GOODIN 37N-B6HZ(500 FSL 1224 FEL)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_GOODIN 37N-B6 - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	7,141.00	5,383.66	231.15	1,271,036.62	3,223,416.50	40.0746250	-104.7016370

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,508.00	1,508.00	9 5/8"	9.625	13.500	
7,569.76	7,130.00	7"(100 FSL 1224 FEL)	7.000	8.750	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
667.00	667.00	Base Fox Hills				
4,303.83	4,229.00	Parkman				
4,570.93	4,487.00	Sussex				
7,145.17	6,979.00	SSPG				
7,198.18	7,013.00	NBRR				
7,448.59	7,117.00	N470_B_CK				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
1,608.00	1,608.00	0.00	0.00	Start Build 2.00	
2,357.93	2,349.40	-92.44	31.31	Start 2840.03 hold at 2357.93 MD	
5,197.96	5,092.67	-788.57	267.13	Start Drop -2.00	
5,947.90	5,834.07	-881.01	298.44	Start 722.97 hold at 5947.90 MD	
6,670.87	6,557.04	-881.01	298.44	Start DLS 10.00 TFO 359.38	
7,569.76	7,130.00	-309.19	292.30	Start 5693.19 hold at 7569.76 MD	
13,262.95	7,141.00	5,383.66	231.15	TD at 13262.95	