



# **US ROCKIES REGION PLANNING**

COLORADO NORTHERN ZONE - 83

WELD\_BRYANT 37-30 PAD

P\_BRYANT 36-30

P\_BRYANT 36-30

Plan: PLAN #1 4-9-10 RHS

## **Standard Planning Report**

09 April, 2010





Project: COLORADO NORTHERN ZONE - 83  
Site: WELD\_BRYANT 37-30 PAD  
Well: P\_BRYANT 36-30  
Wellbore: P\_BRYANT 36-30  
Section: SECTION 30 T2N R68W  
SHL: 284 FSL 1360 FEL  
Design: PLAN #1 4-9-10 RHS  
Latitude: 40° 6' 10.998 N  
Longitude: 105° 2' 30.174 W  
GL: 4928.00  
KB: WELL @ 4943.00ft (Original Well Elev)



**Weatherford**



Azimuths to True North  
Magnetic North: 9.14°

Magnetic Field  
Strength: 53068.1snT  
Dip Angle: 66.80°  
Date: 4/9/2010  
Model: IGRF2010

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3830.00	3936.55	PARKMAN
4370.00	4501.44	SUSSEX
4800.00	4951.26	SHANNON
7250.00	7441.91	NIO A
7540.00	7731.91	CODELL
7610.00	7801.91	GRNHRN
7975.00	8166.91	JSAND

#### CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	8 5/8"	8.62

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1803.57	17.07	258.41	1791.00	-25.35	-123.65	2.00	258.41	126.22	Start 3784.76 hold at 1803.57 MD
5588.33	17.07	258.41	5409.00	-248.53	-1212.08	0.00	0.00	1237.30	Start Drop -2.00
6441.91	0.00	0.00	6250.00	-273.89	-1335.73	2.00	180.00	1363.52	Start 1875.00 hold at 6441.91 MD
8316.91	0.00	0.00	8125.00	-273.89	-1335.73	0.00	0.00	1363.52	TD at 8316.91

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

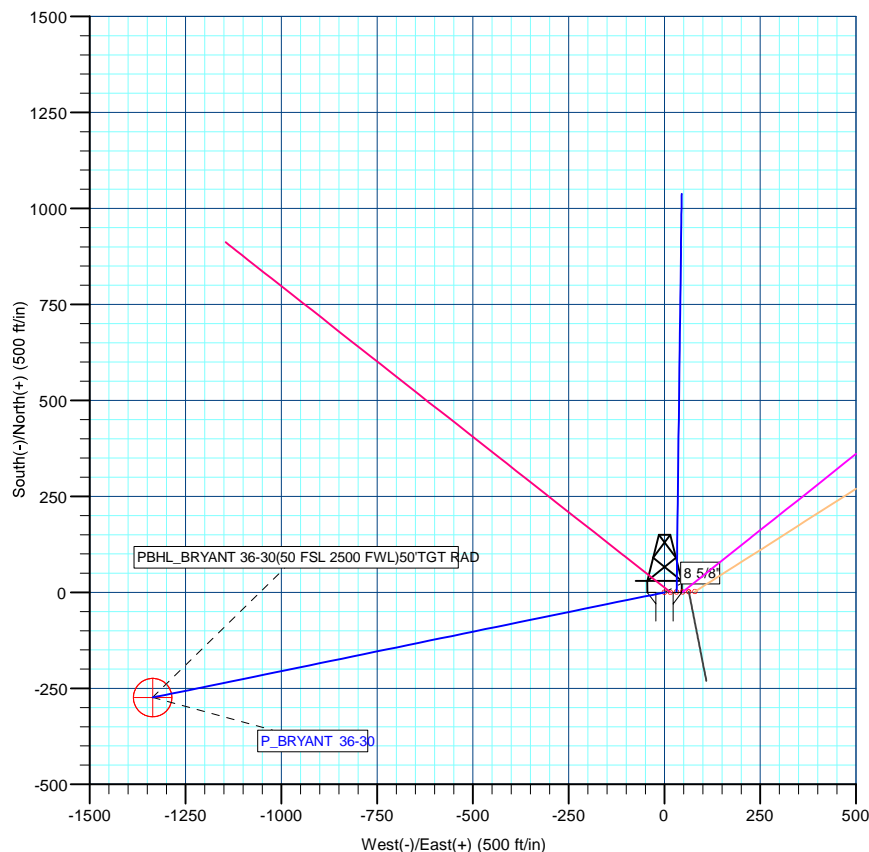
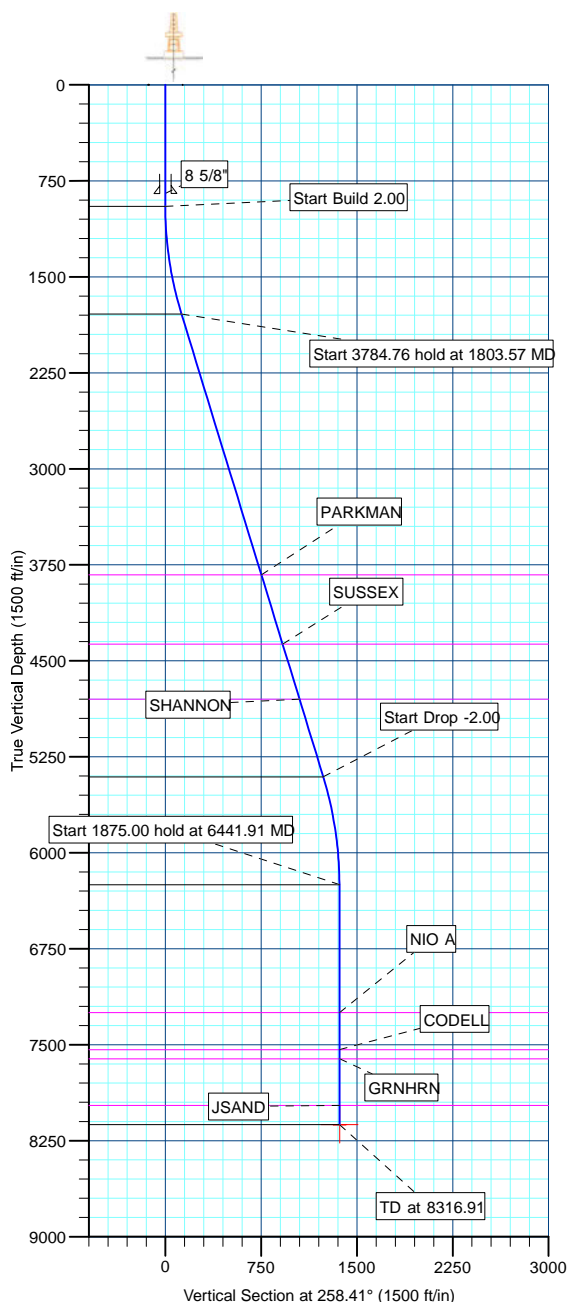
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8125.00	-273.89	-1335.73	40° 6' 8.291 N	105° 2' 47.364 W	Circle (Radius: 50.00)

#### WELL DETAILS: P\_BRYANT 36-30

+N/-S	+E/-W	Northing	Ground Level: Easting	4928.00 Latitude	Longitude	Slot
0.00	0.00	1280718.54	3128195.60	40° 6' 10.998 N	105° 2' 30.174 W	

#### LEGEND

- P\_BRYANT 16-30, P\_BRYANT 16-30, PLAN #1 4-9-10 RHS V0
- P\_BRYANT 20-30, P\_BRYANT 20-30, PLAN #1 4-9-10 RHS V0
- P\_BRYANT 23-30, P\_BRYANT 23-30, PLAN #1 4-9-10 RHS V0
- P\_BRYANT 33-29, P\_BRYANT 33-29, PLAN #1 4-9-10 RHS V0
- P\_BRYANT 37-30, P\_BRYANT 37-30, PLAN #1 4-9-10 RHS V0
- PLAN #1 4-9-10 RHS



Plan: PLAN #1 4-9-10 RHS (P\_BRYANT 36-30/P\_BRYANT 36-30)

Created By: Robert H. Scott Date: 15:30, April 09 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 36-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 36-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 36-30		
Design:	PLAN #1 4-9-10 RHS		

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		WELD_BRYANT 37-30 PAD, SECTION 30 T2N R68W			
Site Position:		Northing:	1,280,720.26ft	Latitude:	40° 6' 11.012 N
From:	Lat/Long	Easting:	3,128,243.43ft	Longitude:	105° 2' 29.558 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.30 °

Well	P_BRYANT 36-30					
Well Position	+N/-S	-1.47 ft	Northing:	1,280,718.54 ft	Latitude:	40° 6' 10.998 N
	+E/-W	-47.83 ft	Easting:	3,128,195.60 ft	Longitude:	105° 2' 30.174 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,928.00 ft

Wellbore	P_BRYANT 36-30				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/9/2010	9.14	66.80	53,068

Design	PLAN #1 4-9-10 RHS			
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	258.41

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	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,803.57	17.07	258.41	1,791.00	-25.35	-123.65	2.00	2.00	0.00	258.41	
5,588.33	17.07	258.41	5,409.00	-248.53	-1,212.08	0.00	0.00	0.00	0.00	
6,441.91	0.00	0.00	6,250.00	-273.89	-1,335.73	2.00	-2.00	0.00	180.00	
8,316.91	0.00	0.00	8,125.00	-273.89	-1,335.73	0.00	0.00	0.00	0.00	PBHL_BRYANT 36

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 36-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 36-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 36-30		
Design:	PLAN #1 4-9-10 RHS		

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)
Start Build 2.00									
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	1.00	258.41	1,000.00	-0.09	-0.43	0.44	2.00	2.00	0.00
1,100.00	3.00	258.41	1,099.93	-0.79	-3.85	3.93	2.00	2.00	0.00
1,200.00	5.00	258.41	1,199.68	-2.19	-10.68	10.90	2.00	2.00	0.00
1,300.00	7.00	258.41	1,299.13	-4.29	-20.92	21.35	2.00	2.00	0.00
1,400.00	9.00	258.41	1,398.15	-7.08	-34.55	35.27	2.00	2.00	0.00
1,500.00	11.00	258.41	1,496.63	-10.57	-51.56	52.63	2.00	2.00	0.00
1,600.00	13.00	258.41	1,594.44	-14.75	-71.93	73.42	2.00	2.00	0.00
1,700.00	15.00	258.41	1,691.46	-19.61	-95.63	97.62	2.00	2.00	0.00
1,800.00	17.00	258.41	1,787.58	-25.14	-122.63	125.18	2.00	2.00	0.00
Start 3784.76 hold at 1803.57 MD									
1,803.57	17.07	258.41	1,791.00	-25.35	-123.65	126.22	2.00	2.00	0.00
1,900.00	17.07	258.41	1,883.18	-31.04	-151.38	154.53	0.00	0.00	0.00
2,000.00	17.07	258.41	1,978.77	-36.94	-180.14	183.89	0.00	0.00	0.00
2,100.00	17.07	258.41	2,074.37	-42.83	-208.90	213.24	0.00	0.00	0.00
2,200.00	17.07	258.41	2,169.96	-48.73	-237.66	242.60	0.00	0.00	0.00
2,300.00	17.07	258.41	2,265.55	-54.63	-266.41	271.96	0.00	0.00	0.00
2,400.00	17.07	258.41	2,361.15	-60.52	-295.17	301.31	0.00	0.00	0.00
2,500.00	17.07	258.41	2,456.74	-66.42	-323.93	330.67	0.00	0.00	0.00
2,600.00	17.07	258.41	2,552.34	-72.32	-352.69	360.03	0.00	0.00	0.00
2,700.00	17.07	258.41	2,647.93	-78.22	-381.45	389.38	0.00	0.00	0.00
2,800.00	17.07	258.41	2,743.52	-84.11	-410.21	418.74	0.00	0.00	0.00
2,900.00	17.07	258.41	2,839.12	-90.01	-438.96	448.10	0.00	0.00	0.00
3,000.00	17.07	258.41	2,934.71	-95.91	-467.72	477.45	0.00	0.00	0.00
3,100.00	17.07	258.41	3,030.30	-101.80	-496.48	506.81	0.00	0.00	0.00
3,200.00	17.07	258.41	3,125.90	-107.70	-525.24	536.17	0.00	0.00	0.00
3,300.00	17.07	258.41	3,221.49	-113.60	-554.00	565.52	0.00	0.00	0.00
3,400.00	17.07	258.41	3,317.09	-119.49	-582.75	594.88	0.00	0.00	0.00
3,500.00	17.07	258.41	3,412.68	-125.39	-611.51	624.24	0.00	0.00	0.00
3,600.00	17.07	258.41	3,508.27	-131.29	-640.27	653.59	0.00	0.00	0.00
3,700.00	17.07	258.41	3,603.87	-137.18	-669.03	682.95	0.00	0.00	0.00
3,800.00	17.07	258.41	3,699.46	-143.08	-697.79	712.30	0.00	0.00	0.00
3,900.00	17.07	258.41	3,795.06	-148.98	-726.54	741.66	0.00	0.00	0.00
PARKMAN									
3,936.55	17.07	258.41	3,830.00	-151.13	-737.06	752.39	0.00	0.00	0.00
4,000.00	17.07	258.41	3,890.65	-154.87	-755.30	771.02	0.00	0.00	0.00
4,100.00	17.07	258.41	3,986.24	-160.77	-784.06	800.37	0.00	0.00	0.00
4,200.00	17.07	258.41	4,081.84	-166.67	-812.82	829.73	0.00	0.00	0.00
4,300.00	17.07	258.41	4,177.43	-172.56	-841.58	859.09	0.00	0.00	0.00
4,400.00	17.07	258.41	4,273.03	-178.46	-870.34	888.44	0.00	0.00	0.00
4,500.00	17.07	258.41	4,368.62	-184.36	-899.09	917.80	0.00	0.00	0.00
SUSSEX									
4,501.44	17.07	258.41	4,370.00	-184.44	-899.51	918.22	0.00	0.00	0.00
4,600.00	17.07	258.41	4,464.21	-190.25	-927.85	947.16	0.00	0.00	0.00
4,700.00	17.07	258.41	4,559.81	-196.15	-956.61	976.51	0.00	0.00	0.00
4,800.00	17.07	258.41	4,655.40	-202.05	-985.37	1,005.87	0.00	0.00	0.00
4,900.00	17.07	258.41	4,751.00	-207.94	-1,014.13	1,035.23	0.00	0.00	0.00
SHANNON									
4,951.26	17.07	258.41	4,800.00	-210.97	-1,028.87	1,050.27	0.00	0.00	0.00
5,000.00	17.07	258.41	4,846.59	-213.84	-1,042.88	1,064.58	0.00	0.00	0.00
5,100.00	17.07	258.41	4,942.18	-219.74	-1,071.64	1,093.94	0.00	0.00	0.00
5,200.00	17.07	258.41	5,037.78	-225.64	-1,100.40	1,123.30	0.00	0.00	0.00
5,300.00	17.07	258.41	5,133.37	-231.53	-1,129.16	1,152.65	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 36-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 36-30		
Design:	PLAN #1 4-9-10 RHS		

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)
5,400.00	17.07	258.41	5,228.97	-237.43	-1,157.92	1,182.01	0.00	0.00	0.00
5,500.00	17.07	258.41	5,324.56	-243.33	-1,186.67	1,211.36	0.00	0.00	0.00
Start Drop -2.00									
5,588.33	17.07	258.41	5,409.00	-248.53	-1,212.08	1,237.30	0.00	0.00	0.00
5,600.00	16.84	258.41	5,420.16	-249.22	-1,215.41	1,240.70	2.00	-2.00	0.00
5,700.00	14.84	258.41	5,516.36	-254.70	-1,242.14	1,267.99	2.00	-2.00	0.00
5,800.00	12.84	258.41	5,613.45	-259.50	-1,265.57	1,291.91	2.00	-2.00	0.00
5,900.00	10.84	258.41	5,711.32	-263.62	-1,285.67	1,312.42	2.00	-2.00	0.00
6,000.00	8.84	258.41	5,809.84	-267.06	-1,302.41	1,329.50	2.00	-2.00	0.00
6,100.00	6.84	258.41	5,908.90	-269.80	-1,315.77	1,343.14	2.00	-2.00	0.00
6,200.00	4.84	258.41	6,008.38	-271.84	-1,325.73	1,353.31	2.00	-2.00	0.00
6,300.00	2.84	258.41	6,108.15	-273.18	-1,332.29	1,360.01	2.00	-2.00	0.00
6,400.00	0.84	258.41	6,208.10	-273.83	-1,335.43	1,363.21	2.00	-2.00	0.00
Start 1875.00 hold at 6441.91 MD									
6,441.91	0.00	0.00	6,250.00	-273.89	-1,335.73	1,363.52	2.00	-2.00	242.42
6,500.00	0.00	0.00	6,308.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
6,600.00	0.00	0.00	6,408.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
6,700.00	0.00	0.00	6,508.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
6,800.00	0.00	0.00	6,608.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
6,900.00	0.00	0.00	6,708.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,000.00	0.00	0.00	6,808.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,100.00	0.00	0.00	6,908.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,200.00	0.00	0.00	7,008.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,300.00	0.00	0.00	7,108.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,400.00	0.00	0.00	7,208.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
NIO A									
7,441.91	0.00	0.00	7,250.00	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,500.00	0.00	0.00	7,308.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,600.00	0.00	0.00	7,408.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,700.00	0.00	0.00	7,508.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
CODELL									
7,731.91	0.00	0.00	7,540.00	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,800.00	0.00	0.00	7,608.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
GRNHRN									
7,801.91	0.00	0.00	7,610.00	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
7,900.00	0.00	0.00	7,708.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
8,000.00	0.00	0.00	7,808.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
8,100.00	0.00	0.00	7,908.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
JSAND									
8,166.91	0.00	0.00	7,975.00	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
8,200.00	0.00	0.00	8,008.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
8,300.00	0.00	0.00	8,108.09	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00
PBHL_BRYANT 36-30(50 FSL 2500 FWL)50'TGT RAD									
8,316.91	0.00	0.00	8,125.00	-273.89	-1,335.73	1,363.52	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 36-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 36-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 36-30		
Design:	PLAN #1 4-9-10 RHS		

#### Design Targets

##### Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL_BRYANT 36-30	0.00	0.00	8,125.00	-273.89	-1,335.73	1,280,437.75	3,126,861.31	40° 6' 8.291 N	105° 2' 47.364 W
- plan hits target center									
- Circle (radius 50.00)									

#### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
850.00	850.00	8 5/8"	8.62	11.00

#### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,936.55	3,830.00	PARKMAN			
4,501.44	4,370.00	SUSSEX			
4,951.26	4,800.00	SHANNON			
7,441.91	7,250.00	NIO A			
7,731.91	7,540.00	CODELL			
7,801.91	7,610.00	GRNHRN			
8,166.91	7,975.00	JSAND			

#### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
950.00	950.00	0.00	0.00	Start Build 2.00
1,803.57	1,791.00	-25.35	-123.65	Start 3784.76 hold at 1803.57 MD
5,588.33	5,409.00	-248.53	-1,212.08	Start Drop -2.00
6,441.91	6,250.00	-273.89	-1,335.73	Start 1875.00 hold at 6441.91 MD
8,316.91	8,125.00	-273.89	-1,335.73	TD at 8316.91