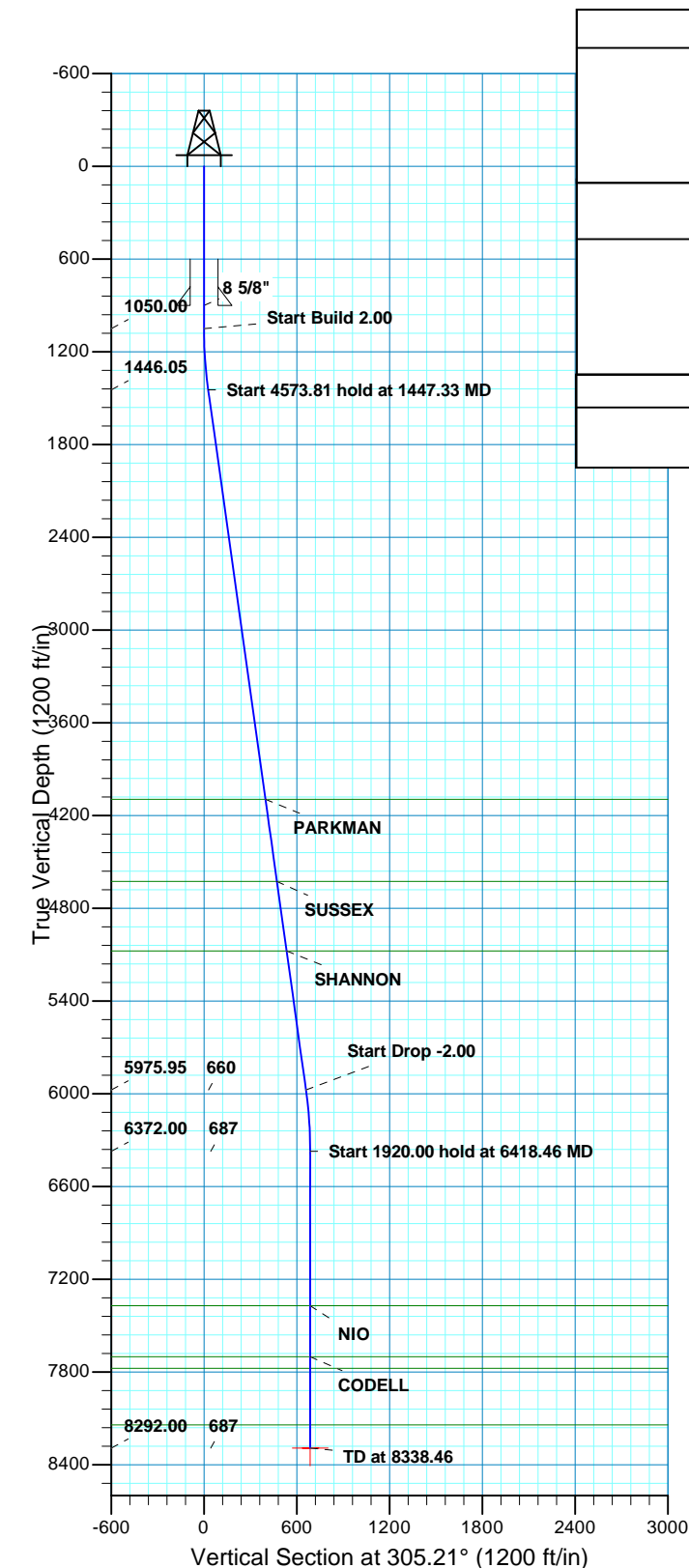
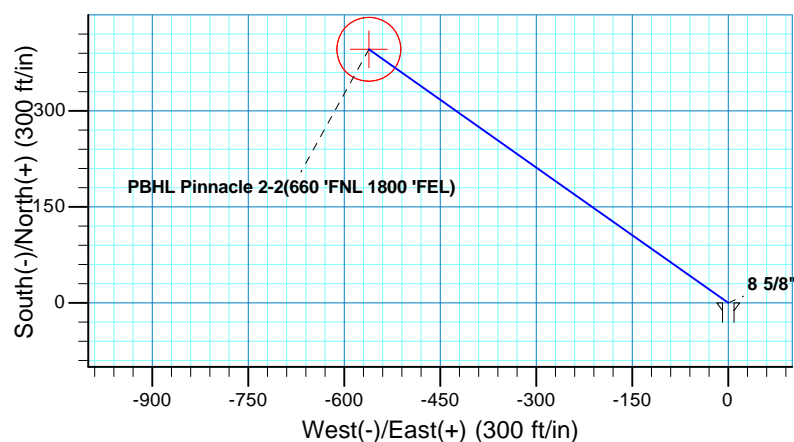


WELL DETAILS: P_Pinnacle 2-2					
GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1274189.01	3149520.85	40° 5' 5.291 N	104° 57' 56.239 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	8292.00	396.34	-561.56	1274581.96	3148956.91	40° 5' 9.208 N	104° 58' 3.464 W
- plan hits target center							
Shape							
Circle (Radius: 50.00)							



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		
1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	0.00	0.00		
1447.33	7.95	305.21	1446.05	15.86	-22.47	2.00	305.21	27.51		
6021.14	7.95	305.21	5975.95	380.48	-539.09	0.00	0.00	659.83		
6418.46	0.00	0.00	6372.00	396.34	-561.56	2.00	180.00	687.34		
8338.46	0.00	0.00	8292.00	396.34	-561.56	0.00	0.00	687.34	PBHL Pinnacle 2-2(660 'FNL 1800 'FEL)	
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 2 T1N R68W System Datum: Mean Sea Level						FORMATION TOP DETAILS				
						TVDPath	MDPath	Formation		
						4096.00	4122.97	PARKMAN		
						4626.00	4658.10	SUSSEX		
						5076.00	5112.47	SHANNON		
						7372.00	7418.46	NIO		
						7702.00	7748.46	CODELL		
						7777.00	7823.46	GREENHORN		
						8142.00	8188.46	JSAND		
CASING DETAILS										
			TVD	MD	Name	Size				
			900.00	900.00	8 5/8"	8.625				



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Pinnacle 17-2 Pad

P_Pinnacle 2-2

P_Pinnacle 2-2

Plan: Plan #2 9-8-10 RHS

Standard Planning Report

15 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pinnacle 2-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Site:	WELD_Pinnacle 17-2 Pad	North Reference:	True
Well:	P_Pinnacle 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pinnacle 2-2		
Design:	Plan #2 9-8-10 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_Pinnacle 17-2 Pad, SECTION 2 T1N R68W		
Site Position:		Northing:	1,274,189.01 usft
From:	Lat/Long	Easting:	3,149,520.85 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Grid Convergence:	0.35 °

Well	P_Pinnacle 2-2, 1059' FNL 1240' FEL		
Well Position	+N/-S	0.00 ft	Northing: 1,274,189.01 usft
	+E/-W	0.00 ft	Easting: 3,149,520.85 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	40° 5' 5.291 N
		Longitude:	104° 57' 56.239 W
		Ground Level:	4,982.00 ft

Wellbore	P_Pinnacle 2-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/17/2010	9.05	66.79	53,029

Design	Plan #2 9-8-10 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	305.21

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	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,447.33	7.95	305.21	1,446.05	15.86	-22.47	2.00	2.00	0.00	305.21	
6,021.14	7.95	305.21	5,975.95	380.48	-539.09	0.00	0.00	0.00	0.00	
6,418.46	0.00	0.00	6,372.00	396.34	-561.56	2.00	-2.00	0.00	180.00	
8,338.47	0.00	0.00	8,292.00	396.34	-561.56	0.00	0.00	0.00	0.00	PBHL Pinnacle 2-2(6'

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pinnacle 2-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Site:	WELD_Pinnacle 17-2 Pad	North Reference:	True
Well:	P_Pinnacle 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pinnacle 2-2		
Design:	Plan #2 9-8-10 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)
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
8 5/8"									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	1.00	305.21	1,100.00	0.25	-0.36	0.44	2.00	2.00	0.00
1,200.00	3.00	305.21	1,199.93	2.26	-3.21	3.93	2.00	2.00	0.00
1,300.00	5.00	305.21	1,299.68	6.29	-8.91	10.90	2.00	2.00	0.00
1,400.00	7.00	305.21	1,399.13	12.31	-17.45	21.35	2.00	2.00	0.00
1,447.33	7.95	305.21	1,446.05	15.86	-22.47	27.51	2.00	2.00	0.00
Start 4573.81 hold at 1447.33 MD									
1,500.00	7.95	305.21	1,498.22	20.06	-28.42	34.79	0.00	0.00	0.00
1,600.00	7.95	305.21	1,597.26	28.03	-39.72	48.62	0.00	0.00	0.00
1,700.00	7.95	305.21	1,696.30	36.01	-51.01	62.44	0.00	0.00	0.00
1,800.00	7.95	305.21	1,795.34	43.98	-62.31	76.27	0.00	0.00	0.00
1,900.00	7.95	305.21	1,894.38	51.95	-73.60	90.09	0.00	0.00	0.00
2,000.00	7.95	305.21	1,993.42	59.92	-84.90	103.92	0.00	0.00	0.00
2,100.00	7.95	305.21	2,092.46	67.89	-96.19	117.74	0.00	0.00	0.00
2,200.00	7.95	305.21	2,191.50	75.86	-107.49	131.57	0.00	0.00	0.00
2,300.00	7.95	305.21	2,290.54	83.84	-118.78	145.39	0.00	0.00	0.00
2,400.00	7.95	305.21	2,389.58	91.81	-130.08	159.21	0.00	0.00	0.00
2,500.00	7.95	305.21	2,488.62	99.78	-141.37	173.04	0.00	0.00	0.00
2,600.00	7.95	305.21	2,587.66	107.75	-152.67	186.86	0.00	0.00	0.00
2,700.00	7.95	305.21	2,686.70	115.72	-163.96	200.69	0.00	0.00	0.00
2,800.00	7.95	305.21	2,785.74	123.70	-175.26	214.51	0.00	0.00	0.00
2,900.00	7.95	305.21	2,884.78	131.67	-186.55	228.34	0.00	0.00	0.00
3,000.00	7.95	305.21	2,983.82	139.64	-197.85	242.16	0.00	0.00	0.00
3,100.00	7.95	305.21	3,082.86	147.61	-209.14	255.99	0.00	0.00	0.00
3,200.00	7.95	305.21	3,181.90	155.58	-220.44	269.81	0.00	0.00	0.00
3,300.00	7.95	305.21	3,280.94	163.55	-231.73	283.64	0.00	0.00	0.00
3,400.00	7.95	305.21	3,379.98	171.53	-243.03	297.46	0.00	0.00	0.00
3,500.00	7.95	305.21	3,479.02	179.50	-254.32	311.29	0.00	0.00	0.00
3,600.00	7.95	305.21	3,578.06	187.47	-265.62	325.11	0.00	0.00	0.00
3,700.00	7.95	305.21	3,677.10	195.44	-276.91	338.94	0.00	0.00	0.00
3,800.00	7.95	305.21	3,776.14	203.41	-288.21	352.76	0.00	0.00	0.00
3,900.00	7.95	305.21	3,875.18	211.39	-299.50	366.59	0.00	0.00	0.00
4,000.00	7.95	305.21	3,974.22	219.36	-310.80	380.41	0.00	0.00	0.00
4,100.00	7.95	305.21	4,073.26	227.33	-322.09	394.24	0.00	0.00	0.00
4,122.97	7.95	305.21	4,096.00	229.16	-324.69	397.41	0.00	0.00	0.00
PARKMAN									
4,200.00	7.95	305.21	4,172.30	235.30	-333.39	408.06	0.00	0.00	0.00
4,300.00	7.95	305.21	4,271.33	243.27	-344.68	421.89	0.00	0.00	0.00
4,400.00	7.95	305.21	4,370.37	251.24	-355.98	435.71	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pinnacle 2-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Site:	WELD_Pinnacle 17-2 Pad	North Reference:	True
Well:	P_Pinnacle 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pinnacle 2-2		
Design:	Plan #2 9-8-10 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)
4,500.00	7.95	305.21	4,469.41	259.22	-367.27	449.54	0.00	0.00	0.00
4,600.00	7.95	305.21	4,568.45	267.19	-378.57	463.36	0.00	0.00	0.00
4,658.10	7.95	305.21	4,626.00	271.82	-385.13	471.39	0.00	0.00	0.00
SUSSEX									
4,700.00	7.95	305.21	4,667.49	275.16	-389.86	477.19	0.00	0.00	0.00
4,800.00	7.95	305.21	4,766.53	283.13	-401.16	491.01	0.00	0.00	0.00
4,900.00	7.95	305.21	4,865.57	291.10	-412.45	504.84	0.00	0.00	0.00
5,000.00	7.95	305.21	4,964.61	299.08	-423.75	518.66	0.00	0.00	0.00
5,100.00	7.95	305.21	5,063.65	307.05	-435.04	532.49	0.00	0.00	0.00
5,112.47	7.95	305.21	5,076.00	308.04	-436.45	534.21	0.00	0.00	0.00
SHANNON									
5,200.00	7.95	305.21	5,162.69	315.02	-446.34	546.31	0.00	0.00	0.00
5,300.00	7.95	305.21	5,261.73	322.99	-457.63	560.14	0.00	0.00	0.00
5,400.00	7.95	305.21	5,360.77	330.96	-468.93	573.96	0.00	0.00	0.00
5,500.00	7.95	305.21	5,459.81	338.93	-480.22	587.78	0.00	0.00	0.00
5,600.00	7.95	305.21	5,558.85	346.91	-491.52	601.61	0.00	0.00	0.00
5,700.00	7.95	305.21	5,657.89	354.88	-502.81	615.43	0.00	0.00	0.00
5,800.00	7.95	305.21	5,756.93	362.85	-514.11	629.26	0.00	0.00	0.00
5,900.00	7.95	305.21	5,855.97	370.82	-525.40	643.08	0.00	0.00	0.00
6,000.00	7.95	305.21	5,955.01	378.79	-536.70	656.91	0.00	0.00	0.00
6,021.14	7.95	305.21	5,975.95	380.48	-539.09	659.83	0.00	0.00	0.00
Start Drop -2.00									
6,100.00	6.37	305.21	6,054.19	386.14	-547.11	669.66	2.00	-2.00	0.00
6,200.00	4.37	305.21	6,153.75	391.54	-554.76	679.01	2.00	-2.00	0.00
6,300.00	2.37	305.21	6,253.57	394.93	-559.56	684.89	2.00	-2.00	0.00
6,400.00	0.37	305.21	6,353.54	396.31	-561.51	687.28	2.00	-2.00	0.00
6,418.46	0.00	0.00	6,372.00	396.34	-561.56	687.34	2.00	-2.00	0.00
Start 1920.00 hold at 6418.46 MD									
6,500.00	0.00	0.00	6,453.54	396.34	-561.56	687.34	0.00	0.00	0.00
6,600.00	0.00	0.00	6,553.54	396.34	-561.56	687.34	0.00	0.00	0.00
6,700.00	0.00	0.00	6,653.54	396.34	-561.56	687.34	0.00	0.00	0.00
6,800.00	0.00	0.00	6,753.54	396.34	-561.56	687.34	0.00	0.00	0.00
6,900.00	0.00	0.00	6,853.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,000.00	0.00	0.00	6,953.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,100.00	0.00	0.00	7,053.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,200.00	0.00	0.00	7,153.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,300.00	0.00	0.00	7,253.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,400.00	0.00	0.00	7,353.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,418.47	0.00	0.00	7,372.00	396.34	-561.56	687.34	0.00	0.00	0.00
NIO									
7,500.00	0.00	0.00	7,453.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,600.00	0.00	0.00	7,553.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,700.00	0.00	0.00	7,653.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,748.47	0.00	0.00	7,702.00	396.34	-561.56	687.34	0.00	0.00	0.00
CODELL									
7,800.00	0.00	0.00	7,753.54	396.34	-561.56	687.34	0.00	0.00	0.00
7,823.47	0.00	0.00	7,777.00	396.34	-561.56	687.34	0.00	0.00	0.00
GREENHORN									
7,900.00	0.00	0.00	7,853.54	396.34	-561.56	687.34	0.00	0.00	0.00
8,000.00	0.00	0.00	7,953.54	396.34	-561.56	687.34	0.00	0.00	0.00
8,100.00	0.00	0.00	8,053.54	396.34	-561.56	687.34	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pinnacle 2-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4982' & RKB 15' @ 4997.00ft (ASSUMED)
Site:	WELD_Pinnacle 17-2 Pad	North Reference:	True
Well:	P_Pinnacle 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pinnacle 2-2		
Design:	Plan #2 9-8-10 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)
8,188.47	0.00	0.00	8,142.00	396.34	-561.56	687.34	0.00	0.00	0.00
JSAND									
8,200.00	0.00	0.00	8,153.54	396.34	-561.56	687.34	0.00	0.00	0.00
8,300.00	0.00	0.00	8,253.54	396.34	-561.56	687.34	0.00	0.00	0.00
8,338.47	0.00	0.00	8,292.00	396.34	-561.56	687.34	0.00	0.00	0.00
PBHL Pinnacle 2-2(660 'FNL 1800 'FEL)									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL Pinnacle 2-2(660 - plan hits target center - Circle (radius 50.00)	0.00	0.00	8,292.00	396.34	-561.56	1,274,581.96	3,148,956.91	40° 5' 9.208 N	104° 58' 3.464 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
900.00	900.00	8 5/8"	8.625	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,122.97	4,096.00	PARKMAN				
4,658.10	4,626.00	SUSSEX				
5,112.47	5,076.00	SHANNON				
7,418.47	7,372.00	NIO				
7,748.47	7,702.00	CODELL				
7,823.47	7,777.00	GREENHORN				
8,188.47	8,142.00	JSAND				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1,050.00	1,050.00	0.00	0.00	Start Build 2.00
1,447.33	1,446.05	15.86	-22.47	Start 4573.81 hold at 1447.33 MD
6,021.14	5,975.95	380.48	-539.09	Start Drop -2.00
6,418.46	6,372.00	396.34	-561.56	Start 1920.00 hold at 6418.46 MD
8,338.47	8,292.00	396.34	-561.56	TD at 8338.46