

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BADDING 20-26 PAD

P_Badding 39-26

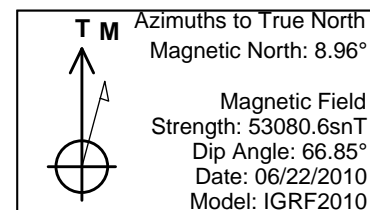
P_Badding 39-26

Plan: PLAN #1 7-22-10 RHS

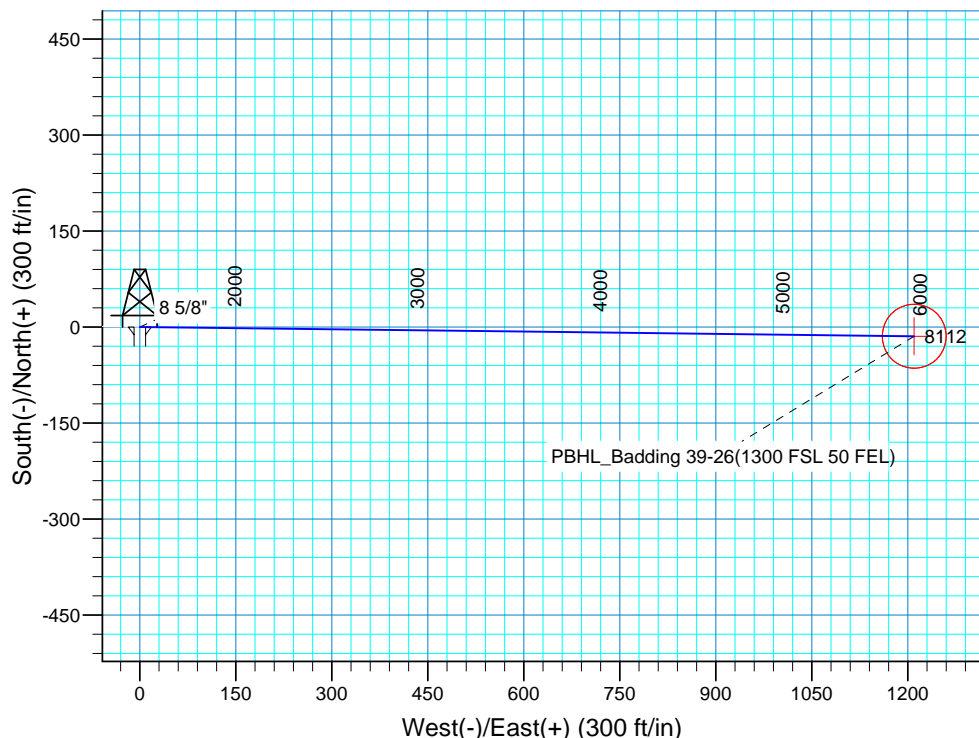
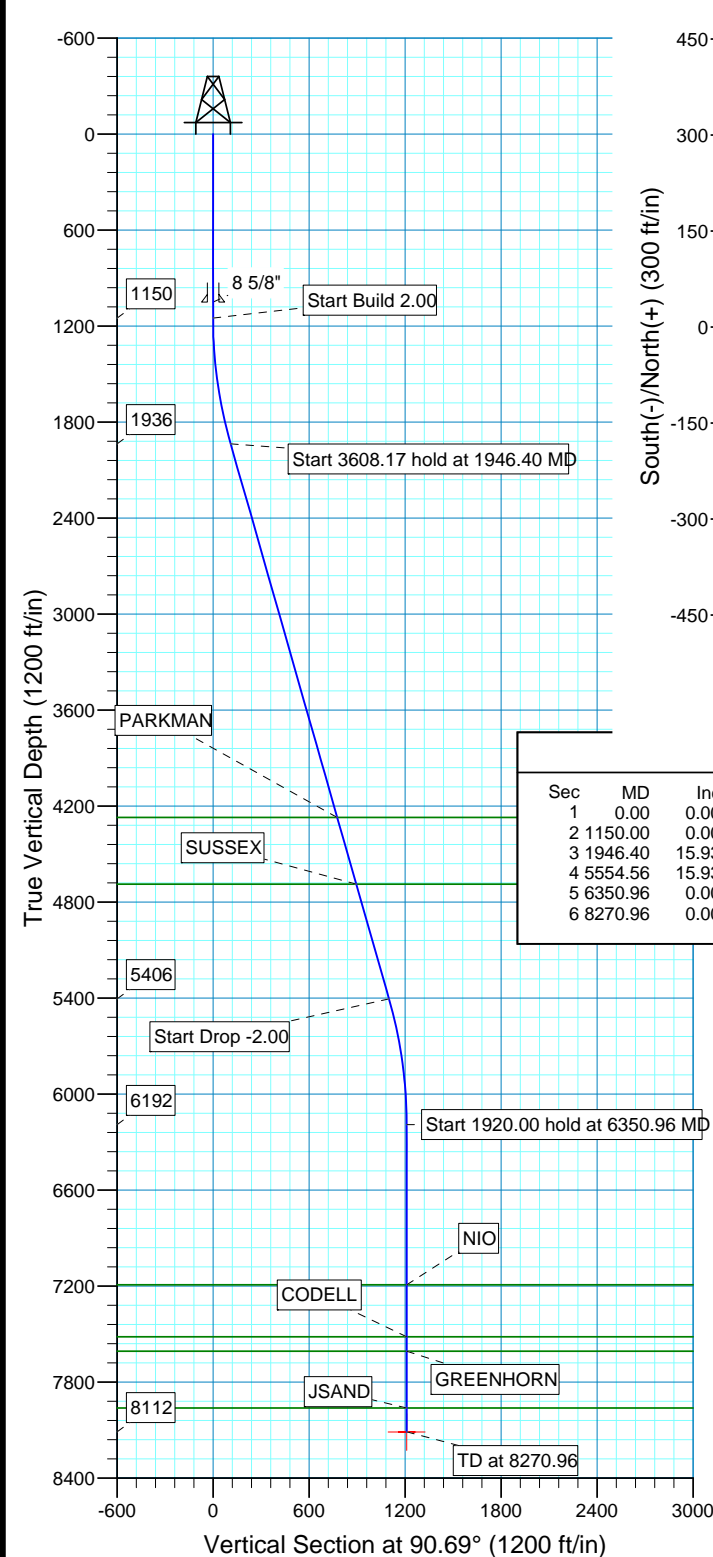
Standard Planning Report

22 July, 2010

WELL DETAILS: P_Badding 39-26					
WELL @ 5082.00ft (Original Well Elev) 5067.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1282247.96	3212756.00	40° 6' 20.369 N	104° 44' 21.790 W



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8112.00	-14.54	1210.07	1282243.81	3213966.14	40° 6' 20.225 N	104° 44' 6.216 W	Circle (Radius: 50.00)



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	1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
3	1946.40	15.93	90.69	1936.18	-1.32	109.98	2.00	90.69	109.99	
4	5554.56	15.93	90.69	5405.82	-13.22	1100.09	0.00	0.00	1100.17	
5	6350.96	0.00	0.00	6192.00	-14.54	1210.07	2.00	180.00	1210.16	
6	8270.96	0.00	0.00	8112.00	-14.54	1210.07	0.00	0.00	1210.16	PBHL_Badding 39-26(1300 FSL 50 FEL)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4271.00	4374.44	PARKMAN
4689.00	4809.13	SUSSEX
7192.00	7350.96	NIO
7517.00	7675.96	CODELL
7607.00	7765.96	GREENHORN
7962.00	8120.96	JSAND

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 26 T2N R66W
System Datum: Mean Sea Level
Local North: True

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well P_Badding 39-26
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5082.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 20-26 PAD	North Reference:	True
Well:	P_Badding 39-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 39-26		
Design:	PLAN #1 7-22-10 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_BADDING 20-26 PAD, SECTION 26 T2N R66W		
Site Position:		Northing:	1,282,246.75 ft
From:	Lat/Long	Easting:	3,212,655.87 ft
Position Uncertainty:	0.00 ft	Slot Radius:	in
		Latitude:	40° 6' 20.365 N
		Longitude:	104° 44' 23.078 W
		Grid Convergence:	0.49 °

Well	P_Badding 39-26		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40° 6' 20.369 N
		Longitude:	104° 44' 21.790 W
		Ground Level:	5,067.00 ft

Wellbore	P_Badding 39-26		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	06/22/2010	8.96
			Dip Angle (°)
			66.85
			Field Strength (nT)
			53,081

Design	PLAN #1 7-22-10 RHS		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)
	0.00	0.00	0.00
			Direction (°)
			90.69

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,946.40	15.93	90.69	1,936.18	-1.32	109.98	2.00	2.00	0.00	90.69	
5,554.56	15.93	90.69	5,405.82	-13.22	1,100.09	0.00	0.00	0.00	0.00	
6,350.96	0.00	0.00	6,192.00	-14.54	1,210.07	2.00	-2.00	0.00	180.00	
8,270.96	0.00	0.00	8,112.00	-14.54	1,210.07	0.00	0.00	0.00	0.00	PBHL_Badding 39-

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well P_Badding 39-26
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5082.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 20-26 PAD	North Reference:	True
Well:	P_Badding 39-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 39-26		
Design:	PLAN #1 7-22-10 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
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
8 5/8"									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,200.00	1.00	90.69	1,200.00	-0.01	0.44	0.44	2.00	2.00	0.00
1,300.00	3.00	90.69	1,299.93	-0.05	3.93	3.93	2.00	2.00	0.00
1,400.00	5.00	90.69	1,399.68	-0.13	10.90	10.90	2.00	2.00	0.00
1,500.00	7.00	90.69	1,499.13	-0.26	21.35	21.35	2.00	2.00	0.00
1,600.00	9.00	90.69	1,598.15	-0.42	35.27	35.27	2.00	2.00	0.00
1,700.00	11.00	90.69	1,696.63	-0.63	52.63	52.63	2.00	2.00	0.00
1,800.00	13.00	90.69	1,794.44	-0.88	73.42	73.42	2.00	2.00	0.00
1,900.00	15.00	90.69	1,891.46	-1.17	97.61	97.62	2.00	2.00	0.00
1,946.40	15.93	90.69	1,936.18	-1.32	109.98	109.99	2.00	2.00	0.00
Start 3608.17 hold at 1946.40 MD									
2,000.00	15.93	90.69	1,987.72	-1.50	124.69	124.70	0.00	0.00	0.00
2,100.00	15.93	90.69	2,083.88	-1.83	152.13	152.14	0.00	0.00	0.00
2,200.00	15.93	90.69	2,180.05	-2.16	179.57	179.58	0.00	0.00	0.00
2,300.00	15.93	90.69	2,276.21	-2.49	207.01	207.02	0.00	0.00	0.00
2,400.00	15.93	90.69	2,372.37	-2.82	234.45	234.47	0.00	0.00	0.00
2,500.00	15.93	90.69	2,468.53	-3.15	261.89	261.91	0.00	0.00	0.00
2,600.00	15.93	90.69	2,564.69	-3.48	289.33	289.35	0.00	0.00	0.00
2,700.00	15.93	90.69	2,660.85	-3.81	316.77	316.80	0.00	0.00	0.00
2,800.00	15.93	90.69	2,757.01	-4.14	344.21	344.24	0.00	0.00	0.00
2,900.00	15.93	90.69	2,853.17	-4.46	371.66	371.68	0.00	0.00	0.00
3,000.00	15.93	90.69	2,949.33	-4.79	399.10	399.12	0.00	0.00	0.00
3,100.00	15.93	90.69	3,045.49	-5.12	426.54	426.57	0.00	0.00	0.00
3,200.00	15.93	90.69	3,141.65	-5.45	453.98	454.01	0.00	0.00	0.00
3,300.00	15.93	90.69	3,237.81	-5.78	481.42	481.45	0.00	0.00	0.00
3,400.00	15.93	90.69	3,333.97	-6.11	508.86	508.90	0.00	0.00	0.00
3,500.00	15.93	90.69	3,430.14	-6.44	536.30	536.34	0.00	0.00	0.00
3,600.00	15.93	90.69	3,526.30	-6.77	563.74	563.78	0.00	0.00	0.00
3,700.00	15.93	90.69	3,622.46	-7.10	591.18	591.23	0.00	0.00	0.00
3,800.00	15.93	90.69	3,718.62	-7.43	618.62	618.67	0.00	0.00	0.00
3,900.00	15.93	90.69	3,814.78	-7.76	646.06	646.11	0.00	0.00	0.00
4,000.00	15.93	90.69	3,910.94	-8.09	673.51	673.55	0.00	0.00	0.00
4,100.00	15.93	90.69	4,007.10	-8.42	700.95	701.00	0.00	0.00	0.00
4,200.00	15.93	90.69	4,103.26	-8.75	728.39	728.44	0.00	0.00	0.00
4,300.00	15.93	90.69	4,199.42	-9.08	755.83	755.88	0.00	0.00	0.00
4,374.44	15.93	90.69	4,271.00	-9.33	776.25	776.31	0.00	0.00	0.00
PARKMAN									
4,400.00	15.93	90.69	4,295.58	-9.41	783.27	783.33	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 20-26 PAD	North Reference:	True
Well:	P_Badding 39-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 39-26		
Design:	PLAN #1 7-22-10 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	15.93	90.69	4,391.74	-9.74	810.71	810.77	0.00	0.00	0.00
4,600.00	15.93	90.69	4,487.90	-10.07	838.15	838.21	0.00	0.00	0.00
4,700.00	15.93	90.69	4,584.06	-10.40	865.59	865.65	0.00	0.00	0.00
4,800.00	15.93	90.69	4,680.22	-10.73	893.03	893.10	0.00	0.00	0.00
4,809.13	15.93	90.69	4,689.00	-10.76	895.54	895.60	0.00	0.00	0.00
SUSSEX									
4,900.00	15.93	90.69	4,776.39	-11.06	920.47	920.54	0.00	0.00	0.00
5,000.00	15.93	90.69	4,872.55	-11.39	947.91	947.98	0.00	0.00	0.00
5,100.00	15.93	90.69	4,968.71	-11.72	975.35	975.43	0.00	0.00	0.00
5,200.00	15.93	90.69	5,064.87	-12.05	1,002.80	1,002.87	0.00	0.00	0.00
5,300.00	15.93	90.69	5,161.03	-12.38	1,030.24	1,030.31	0.00	0.00	0.00
5,400.00	15.93	90.69	5,257.19	-12.71	1,057.68	1,057.75	0.00	0.00	0.00
5,500.00	15.93	90.69	5,353.35	-13.04	1,085.12	1,085.20	0.00	0.00	0.00
5,554.56	15.93	90.69	5,405.82	-13.22	1,100.09	1,100.17	0.00	0.00	0.00
Start Drop -2.00									
5,600.00	15.02	90.69	5,449.61	-13.36	1,112.21	1,112.29	2.00	-2.00	0.00
5,700.00	13.02	90.69	5,546.62	-13.65	1,136.43	1,136.52	2.00	-2.00	0.00
5,800.00	11.02	90.69	5,644.43	-13.90	1,157.26	1,157.34	2.00	-2.00	0.00
5,900.00	9.02	90.69	5,742.90	-14.11	1,174.65	1,174.74	2.00	-2.00	0.00
6,000.00	7.02	90.69	5,841.91	-14.28	1,188.60	1,188.69	2.00	-2.00	0.00
6,100.00	5.02	90.69	5,941.36	-14.41	1,199.09	1,199.17	2.00	-2.00	0.00
6,200.00	3.02	90.69	6,041.11	-14.49	1,206.09	1,206.18	2.00	-2.00	0.00
6,300.00	1.02	90.69	6,141.04	-14.53	1,209.62	1,209.70	2.00	-2.00	0.00
6,350.96	0.00	0.00	6,192.00	-14.54	1,210.07	1,210.16	2.00	-2.00	-177.95
Start 1920.00 hold at 6350.96 MD									
6,400.00	0.00	0.00	6,241.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
6,500.00	0.00	0.00	6,341.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
6,600.00	0.00	0.00	6,441.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
6,700.00	0.00	0.00	6,541.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
6,800.00	0.00	0.00	6,641.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
6,900.00	0.00	0.00	6,741.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,000.00	0.00	0.00	6,841.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,100.00	0.00	0.00	6,941.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,200.00	0.00	0.00	7,041.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,300.00	0.00	0.00	7,141.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,350.96	0.00	0.00	7,192.00	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
NIO									
7,400.00	0.00	0.00	7,241.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,500.00	0.00	0.00	7,341.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,600.00	0.00	0.00	7,441.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,675.96	0.00	0.00	7,517.00	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
CODELL									
7,700.00	0.00	0.00	7,541.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,765.96	0.00	0.00	7,607.00	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
GREENHORN									
7,800.00	0.00	0.00	7,641.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
7,900.00	0.00	0.00	7,741.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
8,000.00	0.00	0.00	7,841.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
8,100.00	0.00	0.00	7,941.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
8,120.96	0.00	0.00	7,962.00	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
JSAND									
8,200.00	0.00	0.00	8,041.04	-14.54	1,210.07	1,210.16	0.00	0.00	0.00
8,270.96	0.00	0.00	8,112.00	-14.54	1,210.07	1,210.16	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 20-26 PAD	North Reference:	True
Well:	P_Badding 39-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 39-26		
Design:	PLAN #1 7-22-10 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)
TD at 8270.96 - PBHL_Badding 39-26(1300 FSL 50 FEL)									

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
- Shape									Latitude Longitude
PBHL_Badding 39-26		0.00	0.00	8,112.00	-14.54	1,210.07	1,282,243.81	3,213,966.14	40° 6' 20.225 N 104° 44' 6.216 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,050.00	1,050.00	8 5/8"	8.620	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,765.96	7,607.00	GREENHORN				
7,675.96	7,517.00	CODELL				
4,809.13	4,689.00	SUSSEX				
8,120.96	7,962.00	JSAND				
4,374.44	4,271.00	PARKMAN				
7,350.96	7,192.00	NIO				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,150.00	1,150.00	0.00	0.00	Start Build 2.00	
1,946.40	1,936.18	-1.32	109.98	Start 3608.17 hold at 1946.40 MD	
5,554.56	5,405.82	-13.22	1,100.09	Start Drop -2.00	
6,350.96	6,192.00	-14.54	1,210.07	Start 1920.00 hold at 6350.96 MD	
8,270.96	8,112.00	-14.54	1,210.07	TD at 8270.96	