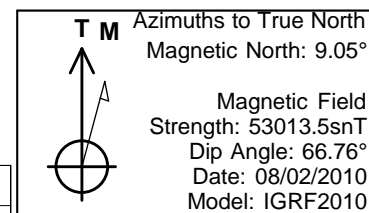
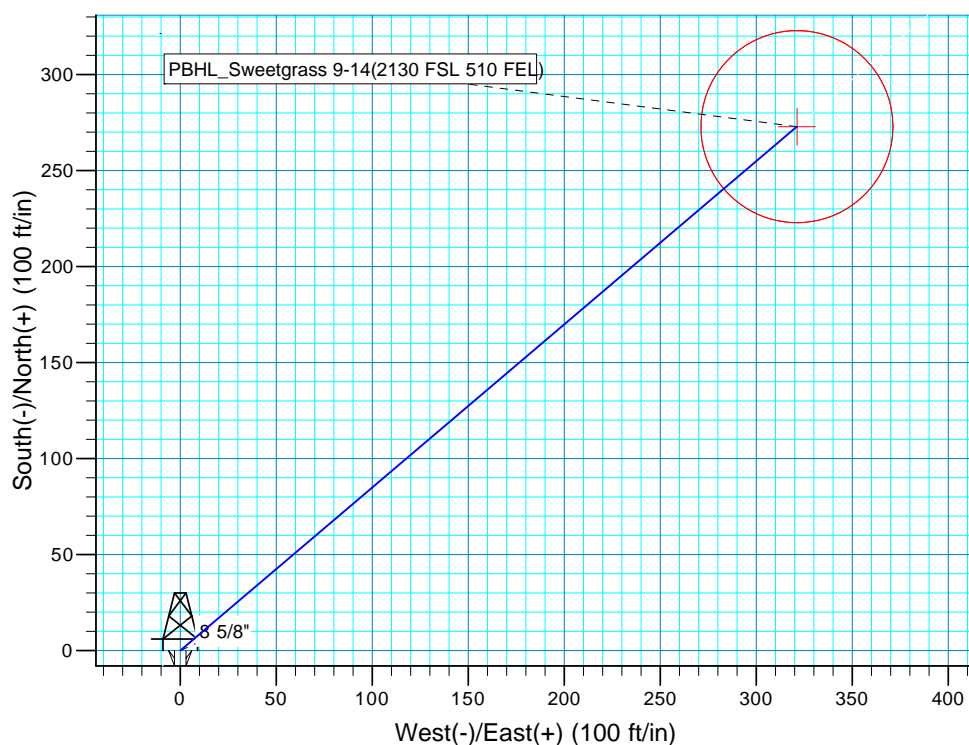
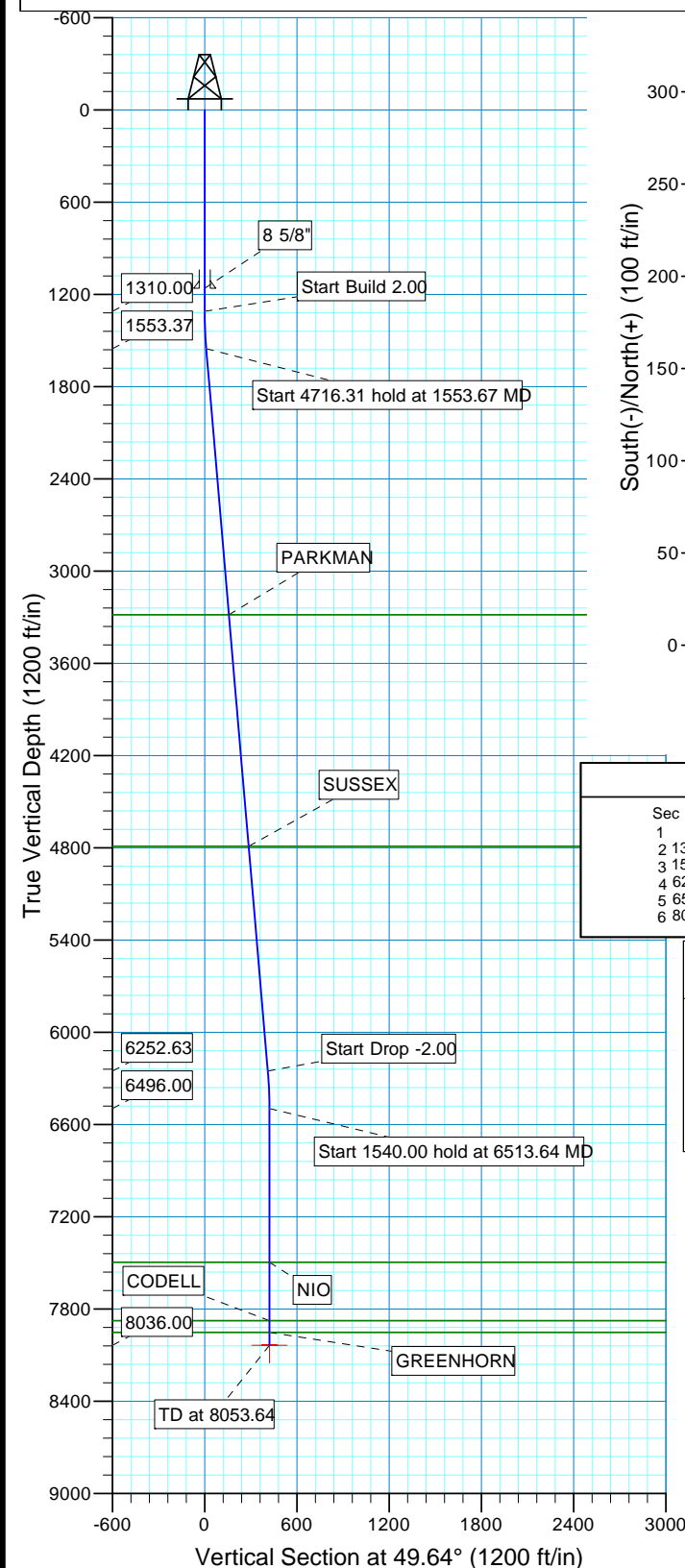


WELL DETAILS: P_Sweetgrass 9-14						
GL 5136' & RKB 15' @ 5151.00ft (ASSUMED) 136.00						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1261260.60	3150004.14	40° 2' 57.498 N	104° 57' 51.026 W	



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8036.00	272.86	321.10	1261535.39	3150323.58	40° 3' 0.194 N	104° 57' 46.897 W	Circle (Radius: 50.00)



SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	1310.00	0.00	0.00	1310.00	0.00	0.00	0.00	0.00	0.00		
3	1553.67	4.87	49.64	1553.37	6.71	7.89	2.00	49.64	10.36		
4	6269.97	4.87	49.64	6252.63	266.15	313.21	0.00	0.00	411.02		
5	6513.64	0.00	0.00	6496.00	272.86	321.10	2.00	180.00	421.38		
6	8053.64	0.00	0.00	8036.00	272.86	321.10	0.00	0.00	421.38	PBHL_Sweetgrass 9-14(2130 FSL 510 FEL)	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3284.00	3290.57	PARKMAN
4790.00	4802.04	SUSSEX
7496.00	7513.64	NIO
7876.00	7893.64	CODELL
7952.00	7969.64	GREENHORN

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 14 T1N R68W
System Datum: Mean Sea Level
Local North: True

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_SWEETGRASS 9-14 Pad

P_Sweetgrass 9-14

P_Sweetgrass 9-14

Plan: PLAN #1 8-2-10 RHS

Standard Planning Report

02 August, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Sweetgrass 9-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Site:	WELD_SWEETGRASS 9-14 Pad	North Reference:	True
Well:	P_Sweetgrass 9-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Sweetgrass 9-14		
Design:	PLAN #1 8-2-10 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_SWEETGRASS 9-14 Pad, SECTION 14 T1N R68W		
Site Position:		Northing:	1,261,248.13 usft
From:	Lat/Long	Easting:	3,149,988.54 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	40° 2' 57.376 N
		Longitude:	104° 57' 51.228 W
		Grid Convergence:	0.35 °

Well	P_Sweetgrass 9-14, 1864' FSL 832' FEL		
Well Position	+N/-S	12.37 ft	Northing:
	+E/-W	15.68 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	40° 2' 57.498 N
		Longitude:	104° 57' 51.026 W
		Ground Level:	5,136.00 ft

Wellbore	P_Sweetgrass 9-14				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/02/2010	9.05	66.76	53,013

Design	PLAN #1 8-2-10 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	49.64

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	
1,310.00	0.00	0.00	1,310.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,553.67	4.87	49.64	1,553.37	6.71	7.89	2.00	2.00	0.00	49.64	
6,269.97	4.87	49.64	6,252.63	266.15	313.21	0.00	0.00	0.00	0.00	
6,513.64	0.00	0.00	6,496.00	272.86	321.10	2.00	-2.00	0.00	180.00	
8,053.64	0.00	0.00	8,036.00	272.86	321.10	0.00	0.00	0.00	0.00	PBHL_Sweetgrass 9-

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Sweetgrass 9-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Site:	WELD_SWEETGRASS 9-14 Pad	North Reference:	True
Well:	P_Sweetgrass 9-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Sweetgrass 9-14		
Design:	PLAN #1 8-2-10 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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,160.00	0.00	0.00	1,160.00	0.00	0.00	0.00	0.00	0.00	0.00	
8 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	
1,310.00	0.00	0.00	1,310.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
1,400.00	1.80	49.64	1,399.99	0.92	1.08	1.41	2.00	2.00	0.00	
1,500.00	3.80	49.64	1,499.86	4.08	4.80	6.30	2.00	2.00	0.00	
1,553.67	4.87	49.64	1,553.37	6.71	7.89	10.36	2.00	2.00	0.00	
Start 4716.31 hold at 1553.67 MD										
1,600.00	4.87	49.64	1,599.54	9.25	10.89	14.29	0.00	0.00	0.00	
1,700.00	4.87	49.64	1,699.18	14.76	17.36	22.79	0.00	0.00	0.00	
1,800.00	4.87	49.64	1,798.82	20.26	23.84	31.28	0.00	0.00	0.00	
1,900.00	4.87	49.64	1,898.45	25.76	30.31	39.78	0.00	0.00	0.00	
2,000.00	4.87	49.64	1,998.09	31.26	36.79	48.27	0.00	0.00	0.00	
2,100.00	4.87	49.64	2,097.73	36.76	43.26	56.77	0.00	0.00	0.00	
2,200.00	4.87	49.64	2,197.37	42.26	49.73	65.26	0.00	0.00	0.00	
2,300.00	4.87	49.64	2,297.01	47.76	56.21	73.76	0.00	0.00	0.00	
2,400.00	4.87	49.64	2,396.65	53.26	62.68	82.25	0.00	0.00	0.00	
2,500.00	4.87	49.64	2,496.29	58.76	69.15	90.75	0.00	0.00	0.00	
2,600.00	4.87	49.64	2,595.92	64.27	75.63	99.25	0.00	0.00	0.00	
2,700.00	4.87	49.64	2,695.56	69.77	82.10	107.74	0.00	0.00	0.00	
2,800.00	4.87	49.64	2,795.20	75.27	88.58	116.24	0.00	0.00	0.00	
2,900.00	4.87	49.64	2,894.84	80.77	95.05	124.73	0.00	0.00	0.00	
3,000.00	4.87	49.64	2,994.48	86.27	101.52	133.23	0.00	0.00	0.00	
3,100.00	4.87	49.64	3,094.12	91.77	108.00	141.72	0.00	0.00	0.00	
3,200.00	4.87	49.64	3,193.75	97.27	114.47	150.22	0.00	0.00	0.00	
3,290.57	4.87	49.64	3,284.00	102.25	120.33	157.91	0.00	0.00	0.00	
PARKMAN										
3,300.00	4.87	49.64	3,293.39	102.77	120.94	158.71	0.00	0.00	0.00	
3,400.00	4.87	49.64	3,393.03	108.27	127.42	167.21	0.00	0.00	0.00	
3,500.00	4.87	49.64	3,492.67	113.77	133.89	175.70	0.00	0.00	0.00	
3,600.00	4.87	49.64	3,592.31	119.28	140.36	184.20	0.00	0.00	0.00	
3,700.00	4.87	49.64	3,691.95	124.78	146.84	192.69	0.00	0.00	0.00	
3,800.00	4.87	49.64	3,791.59	130.28	153.31	201.19	0.00	0.00	0.00	
3,900.00	4.87	49.64	3,891.22	135.78	159.79	209.68	0.00	0.00	0.00	
4,000.00	4.87	49.64	3,990.86	141.28	166.26	218.18	0.00	0.00	0.00	
4,100.00	4.87	49.64	4,090.50	146.78	172.73	226.67	0.00	0.00	0.00	
4,200.00	4.87	49.64	4,190.14	152.28	179.21	235.17	0.00	0.00	0.00	
4,300.00	4.87	49.64	4,289.78	157.78	185.68	243.66	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Sweetgrass 9-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Site:	WELD_SWEETGRASS 9-14 Pad	North Reference:	True
Well:	P_Sweetgrass 9-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Sweetgrass 9-14		
Design:	PLAN #1 8-2-10 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)	
4,400.00	4.87	49.64	4,389.42	163.28	192.15	252.16	0.00	0.00	0.00	
4,500.00	4.87	49.64	4,489.06	168.78	198.63	260.66	0.00	0.00	0.00	
4,600.00	4.87	49.64	4,588.69	174.29	205.10	269.15	0.00	0.00	0.00	
4,700.00	4.87	49.64	4,688.33	179.79	211.57	277.65	0.00	0.00	0.00	
4,800.00	4.87	49.64	4,787.97	185.29	218.05	286.14	0.00	0.00	0.00	
4,802.04	4.87	49.64	4,790.00	185.40	218.18	286.31	0.00	0.00	0.00	
SUSSEX										
4,900.00	4.87	49.64	4,887.61	190.79	224.52	294.64	0.00	0.00	0.00	
5,000.00	4.87	49.64	4,987.25	196.29	231.00	303.13	0.00	0.00	0.00	
5,100.00	4.87	49.64	5,086.89	201.79	237.47	311.63	0.00	0.00	0.00	
5,200.00	4.87	49.64	5,186.52	207.29	243.94	320.12	0.00	0.00	0.00	
5,300.00	4.87	49.64	5,286.16	212.79	250.42	328.62	0.00	0.00	0.00	
5,400.00	4.87	49.64	5,385.80	218.29	256.89	337.11	0.00	0.00	0.00	
5,500.00	4.87	49.64	5,485.44	223.80	263.36	345.61	0.00	0.00	0.00	
5,600.00	4.87	49.64	5,585.08	229.30	269.84	354.10	0.00	0.00	0.00	
5,700.00	4.87	49.64	5,684.72	234.80	276.31	362.60	0.00	0.00	0.00	
5,800.00	4.87	49.64	5,784.36	240.30	282.78	371.09	0.00	0.00	0.00	
5,900.00	4.87	49.64	5,883.99	245.80	289.26	379.59	0.00	0.00	0.00	
6,000.00	4.87	49.64	5,983.63	251.30	295.73	388.08	0.00	0.00	0.00	
6,100.00	4.87	49.64	6,083.27	256.80	302.21	396.58	0.00	0.00	0.00	
6,200.00	4.87	49.64	6,182.91	262.30	308.68	405.07	0.00	0.00	0.00	
6,269.97	4.87	49.64	6,252.63	266.15	313.21	411.02	0.00	0.00	0.00	
Start Drop -2.00										
6,300.00	4.27	49.64	6,282.56	267.70	315.03	413.41	2.00	-2.00	0.00	
6,400.00	2.27	49.64	6,382.39	271.40	319.38	419.12	2.00	-2.00	0.00	
6,500.00	0.27	49.64	6,482.36	272.84	321.08	421.34	2.00	-2.00	0.00	
6,513.64	0.00	0.00	6,496.00	272.86	321.10	421.38	2.00	-2.00	-364.04	
Start 1540.00 hold at 6513.64 MD										
6,600.00	0.00	0.00	6,582.36	272.86	321.10	421.38	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,682.36	272.86	321.10	421.38	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,782.36	272.86	321.10	421.38	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,882.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,982.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,082.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,182.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,282.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,382.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,482.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,513.64	0.00	0.00	7,496.00	272.86	321.10	421.38	0.00	0.00	0.00	
NIO										
7,600.00	0.00	0.00	7,582.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,682.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,782.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,893.64	0.00	0.00	7,876.00	272.86	321.10	421.38	0.00	0.00	0.00	
CODELL										
7,900.00	0.00	0.00	7,882.36	272.86	321.10	421.38	0.00	0.00	0.00	
7,969.64	0.00	0.00	7,952.00	272.86	321.10	421.38	0.00	0.00	0.00	
GREENHORN										
8,000.00	0.00	0.00	7,982.36	272.86	321.10	421.38	0.00	0.00	0.00	
8,053.64	0.00	0.00	8,036.00	272.86	321.10	421.38	0.00	0.00	0.00	
PBHL_Sweetgrass 9-14(2130 FSL 510 FEL)										

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Sweetgrass 9-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5136' & RKB 15' @ 5151.00ft (ASSUMED)
Site:	WELD_SWEETGRASS 9-14 Pad	North Reference:	True
Well:	P_Sweetgrass 9-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Sweetgrass 9-14		
Design:	PLAN #1 8-2-10 RHS		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL_Sweetgrass 9-14	0.00	0.00	8,036.00	272.86	321.10	1,261,535.39	3,150,323.58	40° 3' 0.194 N	104° 57' 46.897 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(in)	(in)
1,160.00	1,160.00	8 5/8"		8.625	11.000

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
3,290.57	3,284.00	PARKMAN				
4,802.04	4,790.00	SUSSEX				
7,513.64	7,496.00	NIO				
7,893.64	7,876.00	CODELL				
7,969.64	7,952.00	GREENHORN				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
(ft)	(ft)	(ft)	(ft)		
1,310.00	1,310.00	0.00	0.00	Start Build 2.00	
1,553.67	1,553.37	6.71	7.89	Start 4716.31 hold at 1553.67 MD	
6,269.97	6,252.63	266.15	313.21	Start Drop -2.00	
6,513.64	6,496.00	272.86	321.10	Start 1540.00 hold at 6513.64 MD	
8,053.64	8,036.00	272.86	321.10	TD at 8053.64	