

WELL DETAILS: P\_Dechant 35-9

WELL @ 4910.00ft (Original Well Elev) 4894.00		Northing	Easting	Latitude	Longitude
+N/-S	+E/-W	1297341.83	3230181.02	40° 8' 47.990 N	104° 40' 35.735 W
0.00	0.00				

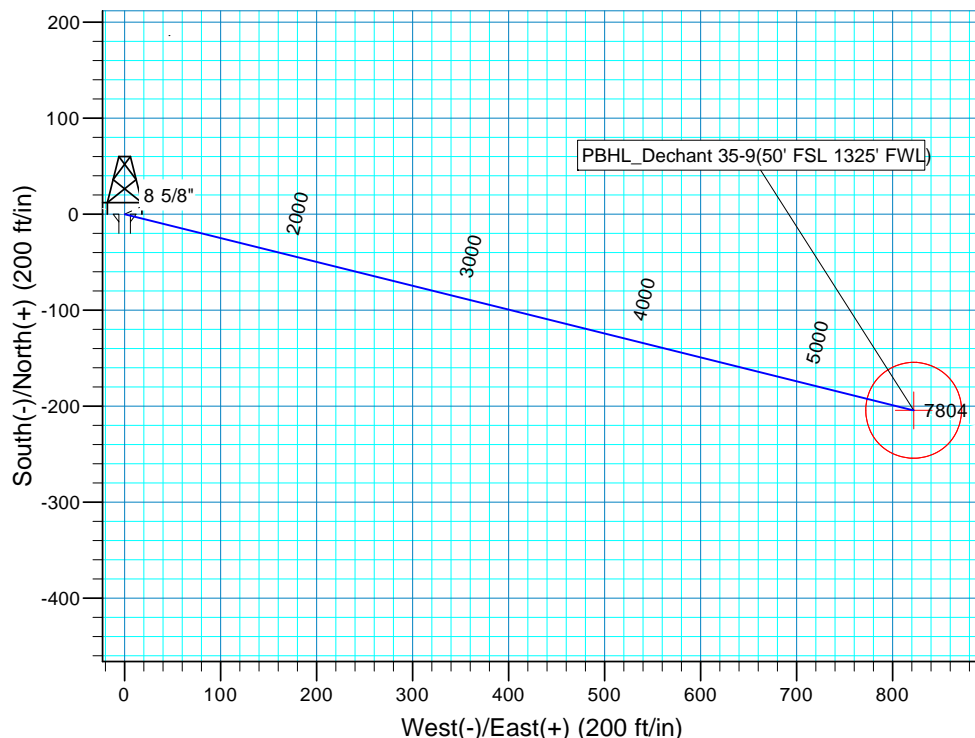
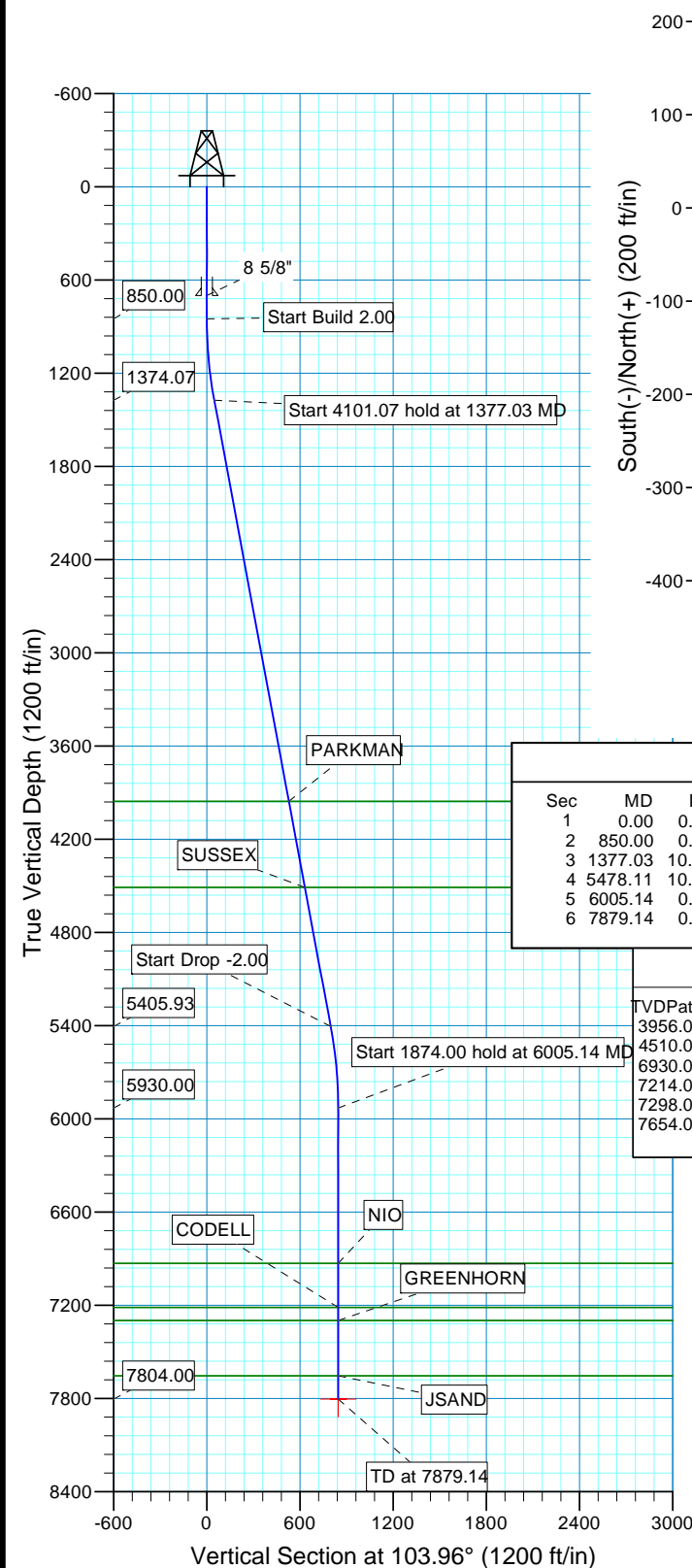
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7804.00	-204.34	821.89	1297145.13	3231004.77	40° 8' 45.971 N	104° 40' 25.151 W	Circle (Radius: 50.00)



Azimuths to True North  
Magnetic North: 8.92°

Magnetic Field  
Strength: 53108.0snT  
Dip Angle: 66.89°  
Date: 07/01/2010  
Model: IGRF2010



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	850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	
3	1377.03	10.54	103.96	1374.07	-11.66	46.91	2.00	103.96	48.34	
4	5478.11	10.54	103.96	5405.93	-192.68	774.97	0.00	0.00	798.57	
5	6005.14	0.00	0.00	5930.00	-204.34	821.89	2.00	180.00	846.91	
6	7879.14	0.00	0.00	7804.00	-204.34	821.89	0.00	0.00	846.91	PBHL_Dechant 35-9(50' FSL 1325' FWL)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3956.00	4003.29	PARKMAN
4510.00	4566.79	SUSSEX
6930.00	7005.14	NIO
7214.00	7289.14	CODELL
7298.00	7373.14	GREENHORN
7654.00	7729.14	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 9 T2NR65W  
System Datum: Mean Sea Level  
Local North: True

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_Dechant 14-9 pad**

**P\_Dechant 35-9**

**P\_Dechant 35-9**

**Plan: PLAN #1 8-2-10 RHS**

## **Standard Planning Report**

**02 August, 2010**

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Dechant 35-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Site:</b>	WELD_Dechant 14-9 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Dechant 35-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Dechant 35-9		
<b>Design:</b>	PLAN #1 8-2-10 RHS		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		WELD_Dechant 14-9 pad, SECTION 9 T2NR65W			
Site Position:		Northing:	1,297,364.57 usft	Latitude:	40° 8' 48.217 N
From:	Lat/Long	Easting:	3,230,158.17 usft	Longitude:	104° 40' 36.026 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	P_Dechant 35-9, 256' FSL 501' FWL					
Well Position	+N/-S	-22.96 ft	Northing:	1,297,341.83 usft	Latitude:	40° 8' 47.990 N
	+E/-W	22.64 ft	Easting:	3,230,181.02 usft	Longitude:	104° 40' 35.735 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,894.00 ft

<b>Wellbore</b>	P_Dechant 35-9				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	07/01/2010	8.92	66.89	53,108

<b>Design</b>	PLAN #1 8-2-10 RHS			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	103.96

<b>Plan Sections</b>										
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	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,377.03	10.54	103.96	1,374.07	-11.66	46.91	2.00	2.00	0.00	103.96	
5,478.11	10.54	103.96	5,405.93	-192.68	774.97	0.00	0.00	0.00	0.00	
6,005.14	0.00	0.00	5,930.00	-204.34	821.89	2.00	-2.00	0.00	180.00	
7,879.14	0.00	0.00	7,804.00	-204.34	821.89	0.00	0.00	0.00	0.00	PBHL_Dechant 35-9(

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Dechant 35-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Site:</b>	WELD_Dechant 14-9 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Dechant 35-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Dechant 35-9		
<b>Design:</b>	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
8 5/8"									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	1.00	103.96	900.00	-0.11	0.42	0.44	2.00	2.00	0.00
1,000.00	3.00	103.96	999.93	-0.95	3.81	3.93	2.00	2.00	0.00
1,100.00	5.00	103.96	1,099.68	-2.63	10.58	10.90	2.00	2.00	0.00
1,200.00	7.00	103.96	1,199.13	-5.15	20.72	21.35	2.00	2.00	0.00
1,300.00	9.00	103.96	1,298.15	-8.51	34.23	35.27	2.00	2.00	0.00
1,377.03	10.54	103.96	1,374.07	-11.66	46.91	48.34	2.00	2.00	0.00
Start 4101.07 hold at 1377.03 MD									
1,400.00	10.54	103.96	1,396.64	-12.68	50.99	52.54	0.00	0.00	0.00
1,500.00	10.54	103.96	1,494.96	-17.09	68.74	70.84	0.00	0.00	0.00
1,600.00	10.54	103.96	1,593.27	-21.51	86.50	89.13	0.00	0.00	0.00
1,700.00	10.54	103.96	1,691.58	-25.92	104.25	107.42	0.00	0.00	0.00
1,800.00	10.54	103.96	1,789.89	-30.33	122.00	125.72	0.00	0.00	0.00
1,900.00	10.54	103.96	1,888.21	-34.75	139.76	144.01	0.00	0.00	0.00
2,000.00	10.54	103.96	1,986.52	-39.16	157.51	162.30	0.00	0.00	0.00
2,100.00	10.54	103.96	2,084.83	-43.57	175.26	180.60	0.00	0.00	0.00
2,200.00	10.54	103.96	2,183.14	-47.99	193.01	198.89	0.00	0.00	0.00
2,300.00	10.54	103.96	2,281.46	-52.40	210.77	217.18	0.00	0.00	0.00
2,400.00	10.54	103.96	2,379.77	-56.82	228.52	235.48	0.00	0.00	0.00
2,500.00	10.54	103.96	2,478.08	-61.23	246.27	253.77	0.00	0.00	0.00
2,600.00	10.54	103.96	2,576.39	-65.64	264.03	272.06	0.00	0.00	0.00
2,700.00	10.54	103.96	2,674.71	-70.06	281.78	290.36	0.00	0.00	0.00
2,800.00	10.54	103.96	2,773.02	-74.47	299.53	308.65	0.00	0.00	0.00
2,900.00	10.54	103.96	2,871.33	-78.88	317.29	326.94	0.00	0.00	0.00
3,000.00	10.54	103.96	2,969.65	-83.30	335.04	345.24	0.00	0.00	0.00
3,100.00	10.54	103.96	3,067.96	-87.71	352.79	363.53	0.00	0.00	0.00
3,200.00	10.54	103.96	3,166.27	-92.13	370.54	381.82	0.00	0.00	0.00
3,300.00	10.54	103.96	3,264.58	-96.54	388.30	400.12	0.00	0.00	0.00
3,400.00	10.54	103.96	3,362.90	-100.95	406.05	418.41	0.00	0.00	0.00
3,500.00	10.54	103.96	3,461.21	-105.37	423.80	436.70	0.00	0.00	0.00
3,600.00	10.54	103.96	3,559.52	-109.78	441.56	455.00	0.00	0.00	0.00
3,700.00	10.54	103.96	3,657.83	-114.19	459.31	473.29	0.00	0.00	0.00
3,800.00	10.54	103.96	3,756.15	-118.61	477.06	491.58	0.00	0.00	0.00
3,900.00	10.54	103.96	3,854.46	-123.02	494.81	509.88	0.00	0.00	0.00
4,000.00	10.54	103.96	3,952.77	-127.44	512.57	528.17	0.00	0.00	0.00
4,003.29	10.54	103.96	3,956.00	-127.58	513.15	528.77	0.00	0.00	0.00
PARKMAN									
4,100.00	10.54	103.96	4,051.08	-131.85	530.32	546.46	0.00	0.00	0.00
4,200.00	10.54	103.96	4,149.40	-136.26	548.07	564.76	0.00	0.00	0.00
4,300.00	10.54	103.96	4,247.71	-140.68	565.83	583.05	0.00	0.00	0.00
4,400.00	10.54	103.96	4,346.02	-145.09	583.58	601.34	0.00	0.00	0.00
4,500.00	10.54	103.96	4,444.33	-149.50	601.33	619.64	0.00	0.00	0.00
4,566.79	10.54	103.96	4,510.00	-152.45	613.19	631.86	0.00	0.00	0.00

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Site:</b>	WELD_Dechant 14-9 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Dechant 35-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Dechant 35-9		
<b>Design:</b>	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)
<b>SUSSEX</b>									
4,600.00	10.54	103.96	4,542.65	-153.92	619.08	637.93	0.00	0.00	0.00
4,700.00	10.54	103.96	4,640.96	-158.33	636.84	656.23	0.00	0.00	0.00
4,800.00	10.54	103.96	4,739.27	-162.75	654.59	674.52	0.00	0.00	0.00
4,900.00	10.54	103.96	4,837.58	-167.16	672.34	692.81	0.00	0.00	0.00
5,000.00	10.54	103.96	4,935.90	-171.57	690.10	711.11	0.00	0.00	0.00
5,100.00	10.54	103.96	5,034.21	-175.99	707.85	729.40	0.00	0.00	0.00
5,200.00	10.54	103.96	5,132.52	-180.40	725.60	747.69	0.00	0.00	0.00
5,300.00	10.54	103.96	5,230.83	-184.81	743.36	765.99	0.00	0.00	0.00
5,400.00	10.54	103.96	5,329.15	-189.23	761.11	784.28	0.00	0.00	0.00
5,478.11	10.54	103.96	5,405.93	-192.68	774.97	798.57	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,500.00	10.10	103.96	5,427.47	-193.62	778.78	802.49	2.00	-2.00	0.00
5,600.00	8.10	103.96	5,526.21	-197.44	794.13	818.31	2.00	-2.00	0.00
5,700.00	6.10	103.96	5,625.44	-200.42	806.13	830.67	2.00	-2.00	0.00
5,800.00	4.10	103.96	5,725.04	-202.57	814.76	839.57	2.00	-2.00	0.00
5,900.00	2.10	103.96	5,824.88	-203.87	820.02	844.98	2.00	-2.00	0.00
6,000.00	0.10	103.96	5,924.86	-204.34	821.88	846.90	2.00	-2.00	0.00
6,005.14	0.00	0.00	5,930.00	-204.34	821.89	846.91	2.00	-2.00	0.00
<b>Start 1874.00 hold at 6005.14 MD</b>									
6,100.00	0.00	0.00	6,024.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,200.00	0.00	0.00	6,124.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,300.00	0.00	0.00	6,224.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,400.00	0.00	0.00	6,324.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,500.00	0.00	0.00	6,424.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,600.00	0.00	0.00	6,524.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,700.00	0.00	0.00	6,624.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,800.00	0.00	0.00	6,724.86	-204.34	821.89	846.91	0.00	0.00	0.00
6,900.00	0.00	0.00	6,824.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,000.00	0.00	0.00	6,924.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,005.14	0.00	0.00	6,930.00	-204.34	821.89	846.91	0.00	0.00	0.00
<b>NIO</b>									
7,100.00	0.00	0.00	7,024.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,200.00	0.00	0.00	7,124.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,289.14	0.00	0.00	7,214.00	-204.34	821.89	846.91	0.00	0.00	0.00
<b>CODELL</b>									
7,300.00	0.00	0.00	7,224.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,373.14	0.00	0.00	7,298.00	-204.34	821.89	846.91	0.00	0.00	0.00
<b>GREENHORN</b>									
7,400.00	0.00	0.00	7,324.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,500.00	0.00	0.00	7,424.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,600.00	0.00	0.00	7,524.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,700.00	0.00	0.00	7,624.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,729.14	0.00	0.00	7,654.00	-204.34	821.89	846.91	0.00	0.00	0.00
<b>JSAND</b>									
7,800.00	0.00	0.00	7,724.86	-204.34	821.89	846.91	0.00	0.00	0.00
7,879.14	0.00	0.00	7,804.00	-204.34	821.89	846.91	0.00	0.00	0.00
<b>PBHL_Dechant 35-9(50' FSL 1325' FWL)</b>									

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Dechant 35-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4910.00ft (Original Well Elev)
<b>Site:</b>	WELD_Dechant 14-9 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Dechant 35-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Dechant 35-9		
<b>Design:</b>	PLAN #1 8-2-10 RHS		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_Dechant 35-9(50'	0.00	0.00	7,804.00	-204.34	821.89	1,297,145.13	3,231,004.77	40° 8' 45.971 N	104° 40' 25.151 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
700.00	700.00	8 5/8"	8.620	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,003.29	3,956.00	PARKMAN				
4,566.79	4,510.00	SUSSEX				
7,005.14	6,930.00	NIO				
7,289.14	7,214.00	CODELL				
7,373.14	7,298.00	GREENHORN				
7,729.14	7,654.00	JSAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
850.00	850.00	0.00	0.00	Start Build 2.00	
1,377.03	1,374.07	-11.66	46.91	Start 4101.07 hold at 1377.03 MD	
5,478.11	5,405.93	-192.68	774.97	Start Drop -2.00	
6,005.14	5,930.00	-204.34	821.89	Start 1874.00 hold at 6005.14 MD	
7,879.14	7,804.00	-204.34	821.89	TD at 7879.14	