



ANADARKO PETROLEUM CORP.

ANADARKO COLORADO NORTHERN ZONE NAD 83

WELD_Reigle

REIGLE 21-4

REIGLE 21-4

Plan: REIGLE 21-4 (wp01)

Standard Planning Report

30 September, 2010



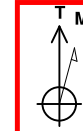
Weatherford®



Project: ANADARKO COLORADO NORTHERN ZONE NAD 83
 Site: WELD_Reigle
 Well: REIGLE 21-4
 Wellbore: REIGLE 21-4
 Section:
 SHL:
 Design: REIGLE 21-4 (wp01)
 Latitude: 40° 10' 6.837 N
 Longitude: 104° 40' 8.933 W
 GL: 4861.0
 KB: WELL @ 4861.0ft (Original Well Elev)



Weatherford



Azimuths to True North
 Magnetic North: 8.85°

Magnetic Field
 Strength: 53076.0snT
 Dip Angle: 66.92°
 Date: 9/30/2010
 Model: BGGM2010

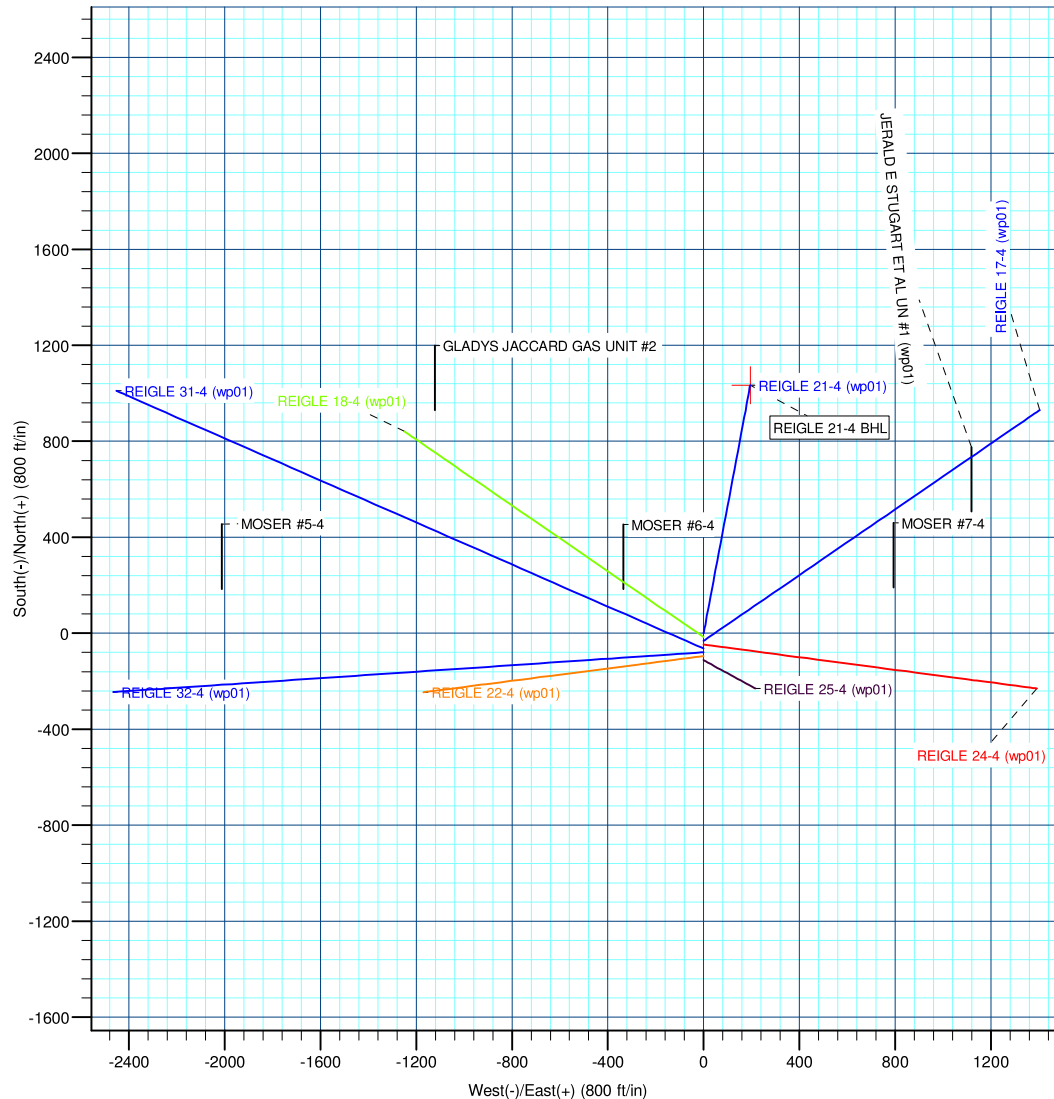
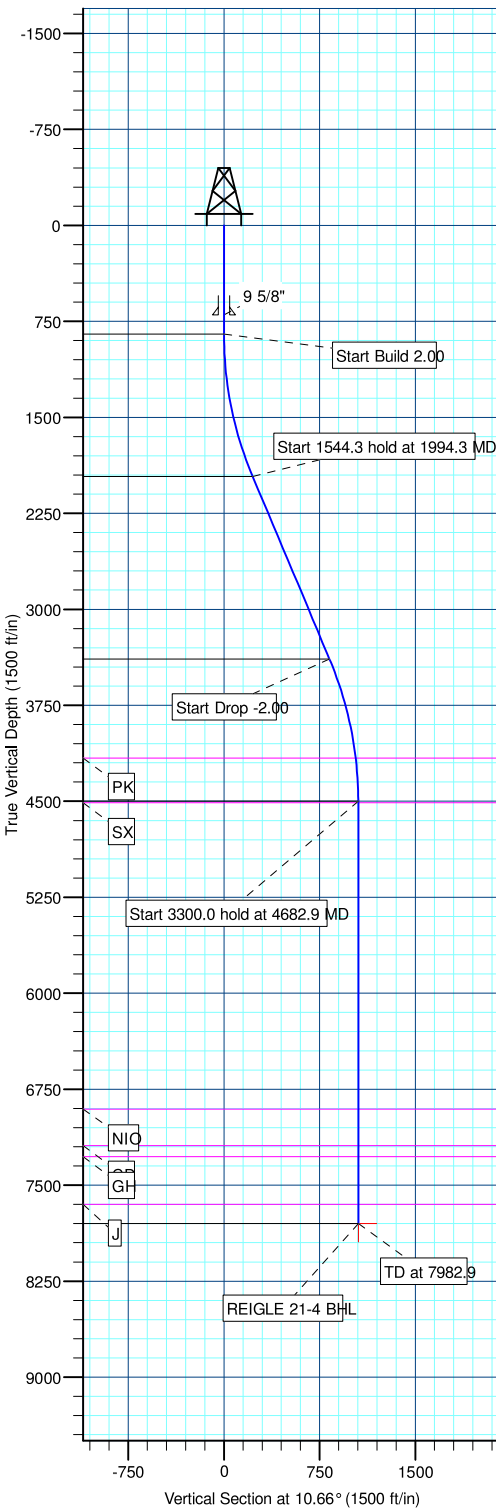
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4161.0	4342.1	PK
4513.0	4694.9	SX
6907.0	7088.9	NIO
7192.0	7373.9	CD
7279.0	7460.9	GH
7651.0	7832.9	J

SECTION DETAILS									
MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
850.0	0.00	0.00	850.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
1994.3	22.89	10.66	1964.1	221.6	41.7	2.00	10.66	225.5	Start 1544.3 hold at 1994.3 MD
3538.6	22.89	10.66	3386.9	811.9	152.8	0.00	0.00	826.1	Start Drop -2.00
4682.9	0.00	0.00	4501.0	1033.5	194.5	2.00	180.00	1051.6	Start 3300.0 hold at 4682.9 MD
7982.9	0.00	0.00	7801.0	1033.5	194.5	0.00	0.00	1051.6	TD at 7982.9

CASING DETAILS			
TVD	MD	Name	Size
700.0	700.0	9 5/8"	9-5/8

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N-S	+E-W	Latitude	Longitude	Shape
REIGLE 21-4 BHL	7801.0	1033.5	194.5	40° 10' 17.051 N	104° 40' 6.427 W	Point

WELL DETAILS: REIGLE 21-4						
+N-S	+E-W	Northing	Ground Level: Easting	4861.0 Latitude	Longitude	Slot
0.0	0.0	1305339.36	3232187.43	40° 10' 6.837 N	104° 40' 8.933 W	



Plan: REIGLE 21-4 (wp01) (REIGLE 21-4/REIGLE 21-4)
 Created By: Jason Daguitera Date: 17:25, September 30 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well REIGLE 21-4
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4861.0ft (Original Well Elev)
Project:	ANADARKO COLORADO NORTHERN ZONE NAD 83	MD Reference:	WELL @ 4861.0ft (Original Well Elev)
Site:	WELD_Reigle	North Reference:	True
Well:	REIGLE 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 21-4		
Design:	REIGLE 21-4 (wp01)		

Project	ANADARKO COLORADO NORTHERN ZONE NAD 83, ROCKIES, ROCKIES		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_Reigle				
Site Position:		Northing:	1,305,307.68ft	Latitude:	40° 10' 6.524 N
From:	Lat/Long	Easting:	3,232,187.17ft	Longitude:	104° 40' 8.940 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.54 °

Well	REIGLE 21-4					
Well Position	+N/-S	31.7 ft	Northing:	1,305,339.36 ft	Latitude:	40° 10' 6.837 N
	+E/-W	0.6 ft	Easting:	3,232,187.43 ft	Longitude:	104° 40' 8.933 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,861.0 ft

Wellbore	REIGLE 21-4				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	9/30/2010	8.85	66.92	53,076

Design	REIGLE 21-4 (wp01)				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	10.66	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
850.0	0.00	0.00	850.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,994.3	22.89	10.66	1,964.1	221.6	41.7	2.00	2.00	0.00	10.66	
3,538.6	22.89	10.66	3,386.9	811.9	152.8	0.00	0.00	0.00	0.00	
4,682.9	0.00	0.00	4,501.0	1,033.5	194.5	2.00	-2.00	0.00	180.00	
7,982.9	0.00	0.00	7,801.0	1,033.5	194.5	0.00	0.00	0.00	0.00	REIGLE 21-4 BHL

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Project:	ANADARKO COLORADO NORTHERN ZONE NAD 83	MD Reference:	WELL @ 4861.0ft (Original Well Elev)
Site:	WELD_Reigle	North Reference:	True
Well:	REIGLE 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 21-4		
Design:	REIGLE 21-4 (wp01)		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	1.00	10.66	900.0	0.4	0.1	0.4	2.00	2.00	0.00
1,000.0	3.00	10.66	999.9	3.9	0.7	3.9	2.00	2.00	0.00
1,100.0	5.00	10.66	1,099.7	10.7	2.0	10.9	2.00	2.00	0.00
1,200.0	7.00	10.66	1,199.1	21.0	3.9	21.4	2.00	2.00	0.00
1,300.0	9.00	10.66	1,298.2	34.7	6.5	35.3	2.00	2.00	0.00
1,400.0	11.00	10.66	1,396.6	51.7	9.7	52.6	2.00	2.00	0.00
1,500.0	13.00	10.66	1,494.4	72.2	13.6	73.4	2.00	2.00	0.00
1,600.0	15.00	10.66	1,591.5	95.9	18.1	97.6	2.00	2.00	0.00
1,700.0	17.00	10.66	1,687.6	123.0	23.2	125.2	2.00	2.00	0.00
1,800.0	19.00	10.66	1,782.7	153.4	28.9	156.1	2.00	2.00	0.00
1,900.0	21.00	10.66	1,876.6	187.0	35.2	190.3	2.00	2.00	0.00
Start 1544.3 hold at 1994.3 MD									
1,994.3	22.89	10.66	1,964.1	221.6	41.7	225.5	2.00	2.00	0.00
2,000.0	22.89	10.66	1,969.4	223.8	42.1	227.7	0.00	0.00	0.00
2,100.0	22.89	10.66	2,061.5	262.0	49.3	266.6	0.00	0.00	0.00
2,200.0	22.89	10.66	2,153.6	300.2	56.5	305.5	0.00	0.00	0.00
2,300.0	22.89	10.66	2,245.7	338.5	63.7	344.4	0.00	0.00	0.00
2,400.0	22.89	10.66	2,337.9	376.7	70.9	383.3	0.00	0.00	0.00
2,500.0	22.89	10.66	2,430.0	414.9	78.1	422.2	0.00	0.00	0.00
2,600.0	22.89	10.66	2,522.1	453.1	85.3	461.1	0.00	0.00	0.00
2,700.0	22.89	10.66	2,614.3	491.3	92.5	500.0	0.00	0.00	0.00
2,800.0	22.89	10.66	2,706.4	529.6	99.7	538.9	0.00	0.00	0.00
2,900.0	22.89	10.66	2,798.5	567.8	106.9	577.7	0.00	0.00	0.00
3,000.0	22.89	10.66	2,890.6	606.0	114.0	616.6	0.00	0.00	0.00
3,100.0	22.89	10.66	2,982.8	644.2	121.2	655.5	0.00	0.00	0.00
3,200.0	22.89	10.66	3,074.9	682.4	128.4	694.4	0.00	0.00	0.00
3,300.0	22.89	10.66	3,167.0	720.7	135.6	733.3	0.00	0.00	0.00
3,400.0	22.89	10.66	3,259.2	758.9	142.8	772.2	0.00	0.00	0.00
3,500.0	22.89	10.66	3,351.3	797.1	150.0	811.1	0.00	0.00	0.00
Start Drop -2.00									
3,538.6	22.89	10.66	3,386.9	811.9	152.8	826.1	0.00	0.00	0.00
3,600.0	21.66	10.66	3,443.7	834.7	157.1	849.4	2.00	-2.00	0.00
3,700.0	19.66	10.66	3,537.2	869.4	163.6	884.6	2.00	-2.00	0.00
3,800.0	17.66	10.66	3,632.0	900.8	169.5	916.6	2.00	-2.00	0.00
3,900.0	15.66	10.66	3,727.8	929.0	174.8	945.3	2.00	-2.00	0.00
4,000.0	13.66	10.66	3,824.5	953.9	179.5	970.6	2.00	-2.00	0.00
4,100.0	11.66	10.66	3,922.1	975.4	183.6	992.5	2.00	-2.00	0.00
4,200.0	9.66	10.66	4,020.3	993.6	187.0	1,011.0	2.00	-2.00	0.00
4,300.0	7.66	10.66	4,119.2	1,008.4	189.8	1,026.1	2.00	-2.00	0.00
PK									
4,342.1	6.82	10.66	4,161.0	1,013.6	190.8	1,031.4	2.00	-2.00	0.00

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Project:	ANADARKO COLORADO NORTHERN ZONE NAD 83	MD Reference:	WELL @ 4861.0ft (Original Well Elev)
Site:	WELD_Reigle	North Reference:	True
Well:	REIGLE 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 21-4		
Design:	REIGLE 21-4 (wp01)		

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)
4,400.0	5.66	10.66	4,218.5	1,019.8	191.9	1,037.7	2.00	-2.00	0.00
4,500.0	3.66	10.66	4,318.2	1,027.7	193.4	1,045.8	2.00	-2.00	0.00
4,600.0	1.66	10.66	4,418.1	1,032.3	194.3	1,050.4	2.00	-2.00	0.00
Start 3300.0 hold at 4682.9 MD									
4,682.9	0.00	0.00	4,501.0	1,033.5	194.5	1,051.6	2.00	-2.00	0.00
SX									
4,694.9	0.00	0.00	4,513.0	1,033.5	194.5	1,051.6	0.00	0.00	0.00
4,700.0	0.00	0.00	4,518.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
4,800.0	0.00	0.00	4,618.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
4,900.0	0.00	0.00	4,718.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,000.0	0.00	0.00	4,818.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,100.0	0.00	0.00	4,918.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,018.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,300.0	0.00	0.00	5,118.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,218.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,500.0	0.00	0.00	5,318.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,418.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,700.0	0.00	0.00	5,518.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,800.0	0.00	0.00	5,618.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
5,900.0	0.00	0.00	5,718.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,818.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,100.0	0.00	0.00	5,918.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,018.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,300.0	0.00	0.00	6,118.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,218.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,318.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,418.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,518.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,618.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
6,900.0	0.00	0.00	6,718.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,818.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
NIO									
7,088.9	0.00	0.00	6,907.0	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,100.0	0.00	0.00	6,918.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,200.0	0.00	0.00	7,018.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,300.0	0.00	0.00	7,118.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
CD									
7,373.9	0.00	0.00	7,192.0	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,400.0	0.00	0.00	7,218.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
GH									
7,460.9	0.00	0.00	7,279.0	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,500.0	0.00	0.00	7,318.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,600.0	0.00	0.00	7,418.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,518.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,618.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
J									
7,832.9	0.00	0.00	7,651.0	1,033.5	194.5	1,051.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,718.1	1,033.5	194.5	1,051.6	0.00	0.00	0.00
TD at 7982.9									
7,982.9	0.00	0.00	7,801.0	1,033.5	194.5	1,051.6	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well REIGLE 21-4
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4861.0ft (Original Well Elev)
Project:	ANADARKO COLORADO NORTHERN ZONE NAD 83	MD Reference:	WELL @ 4861.0ft (Original Well Elev)
Site:	WELD_Reigle	North Reference:	True
Well:	REIGLE 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 21-4		
Design:	REIGLE 21-4 (wp01)		

Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
REIGLE 21-4 BHL - plan hits target center - Point	0.00	0.00	7,801.0	1,033.5	194.5	1,306,374.62	3,232,372.24	40° 10' 17.051 N	104° 40' 6.427 W

Casing Points

Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
700.0	700.0	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
7,832.9	7,651.0	J			
4,694.9	4,513.0	SX			
7,373.9	7,192.0	CD			
4,342.1	4,161.0	PK			
7,088.9	6,907.0	NIO			
7,460.9	7,279.0	GH			

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
		+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	
850.0	850.0	0.0	0.0	Start Build 2.00
1,994.3	1,964.1	221.6	41.7	Start 1544.3 hold at 1994.3 MD
3,538.6	3,386.9	811.9	152.8	Start Drop -2.00
4,682.9	4,501.0	1,033.5	194.5	Start 3300.0 hold at 4682.9 MD
7,982.9	7,801.0	1,033.5	194.5	TD at 7982.9