

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CARTER 10 PAD

Carter 37-32

Carter 37-32

Plan: Carter 37-32 (wp01)

Standard Planning Report

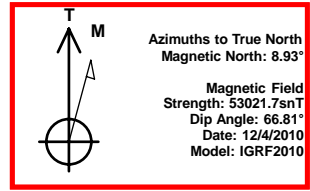
28 January, 2011



Weatherford®

Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_CARTER 10 PAD
 Well: Carter 37-32
 Wellbore: Carter 37-32
 Section:
 SHL:
 Design: Carter 37-32 (wp01)
 Latitude: 40.093727
 Longitude: -104.797199
 GL: 4912.00
 KB: WELL @ 4912.00ft (Original Well Elev)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3980.00	4244.05	PK Depth
4482.00	4791.83	SX Depth
7127.00	7569.40	NIO Depth
7452.00	7894.40	CD Depth
7542.00	7984.40	GH Depth
7892.00	8334.40	J Depth



WELL DETAILS: Carter 37-32

+N/-S	+E/-W	Northing	Ground Level: Easting	4912.00 Latitude	Longitude	Slot
0.00	0.00	1277768.36	3196619.57	40.093727	-104.797199	

CASING DETAILS

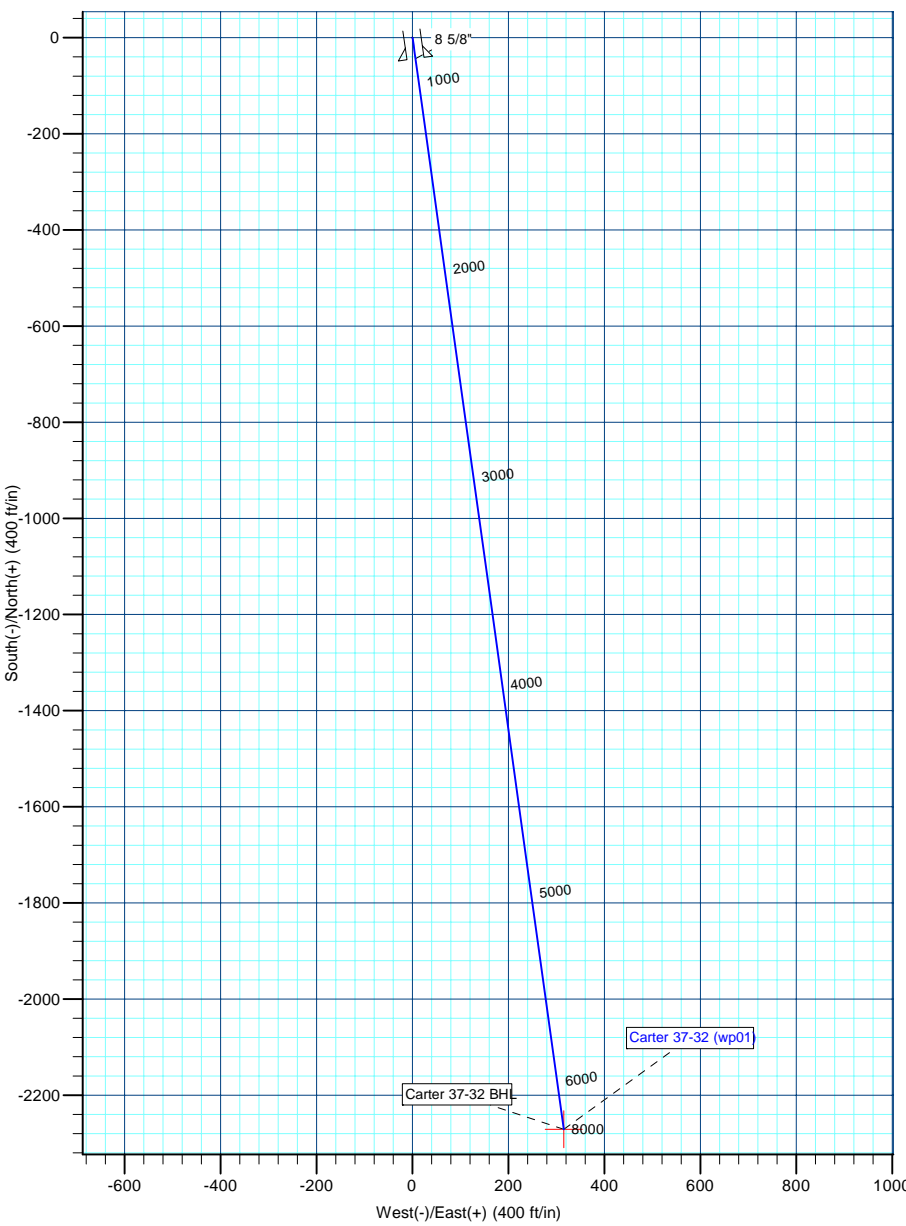
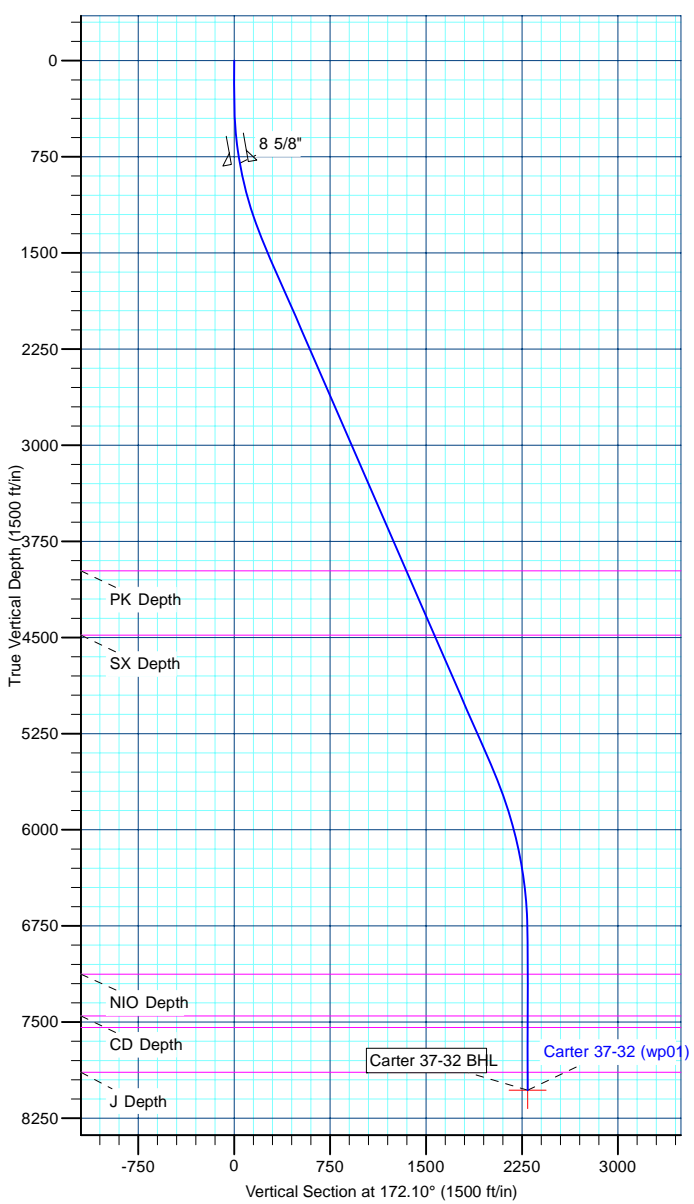
TVD	MD	Name	Size
800.00	802.57	8 5/8"	8-5/8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point
Carter 37-32 BHL	8032.00	-2270.80	315.05	1275500.13	3196952.60	40.087493	-104.796073	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	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
1479.46	23.59	172.10	1446.42	-237.12	32.90	2.00	172.10	239.39
5926.44	23.59	172.10	5521.80	-1999.81	277.45	0.00	0.00	2018.96
7274.40	0.00	0.00	6832.00	-2270.80	315.05	1.75	180.00	2292.55
8474.40	0.00	0.00	8032.00	-2270.80	315.05	0.00	0.00	2292.55



Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 37-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 37-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 37-32		
Design:	Carter 37-32 (wp01)		

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

Site	WELD_CARTER 10 PAD				
Site Position:		Northing:	1,277,768.43 ft	Latitude:	40.093728
From:	Lat/Long	Easting:	3,196,569.49 ft	Longitude:	-104.797378
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.45 °

Well	Carter 37-32					
Well Position	+N/-S	-0.46 ft	Northing:	1,277,768.36 ft	Latitude:	40.093727
	+E/-W	50.08 ft	Easting:	3,196,619.57 ft	Longitude:	-104.797199
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,912.00 ft

Wellbore	Carter 37-32				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/4/2010	8.93	66.81	53,022

Design	Carter 37-32 (wp01)			
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	172.10

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,479.46	23.59	172.10	1,446.42	-237.12	32.90	2.00	2.00	0.00	172.10	
5,926.44	23.59	172.10	5,521.80	-1,999.81	277.45	0.00	0.00	0.00	0.00	
7,274.40	0.00	0.00	6,832.00	-2,270.80	315.05	1.75	-1.75	0.00	180.00	
8,474.40	0.00	0.00	8,032.00	-2,270.80	315.05	0.00	0.00	0.00	0.00	Carter 37-32 BHL

Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 37-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 37-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 37-32		
Design:	Carter 37-32 (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)
0.00	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	2.00	172.10	399.98	-1.73	0.24	1.75	2.00	2.00	0.00
500.00	4.00	172.10	499.84	-6.91	0.96	6.98	2.00	2.00	0.00
600.00	6.00	172.10	599.45	-15.54	2.16	15.69	2.00	2.00	0.00
700.00	8.00	172.10	698.70	-27.62	3.83	27.88	2.00	2.00	0.00
800.00	10.00	172.10	797.47	-43.11	5.98	43.52	2.00	2.00	0.00
802.57	10.05	172.10	800.00	-43.55	6.04	43.97	2.00	2.00	0.00
8 5/8"									
900.00	12.00	172.10	895.62	-62.01	8.60	62.60	2.00	2.00	0.00
1,000.00	14.00	172.10	993.06	-84.29	11.69	85.10	2.00	2.00	0.00
1,100.00	16.00	172.10	1,089.64	-109.92	15.25	110.98	2.00	2.00	0.00
1,200.00	18.00	172.10	1,185.27	-138.88	19.27	140.21	2.00	2.00	0.00
1,300.00	20.00	172.10	1,279.82	-171.13	23.74	172.77	2.00	2.00	0.00
1,400.00	22.00	172.10	1,373.17	-206.62	28.67	208.60	2.00	2.00	0.00
1,479.46	23.59	172.10	1,446.42	-237.12	32.90	239.39	2.00	2.00	0.00
1,500.00	23.59	172.10	1,465.24	-245.26	34.03	247.61	0.00	0.00	0.00
1,600.00	23.59	172.10	1,556.89	-284.90	39.53	287.62	0.00	0.00	0.00
1,700.00	23.59	172.10	1,648.53	-324.53	45.03	327.64	0.00	0.00	0.00
1,800.00	23.59	172.10	1,740.18	-364.17	50.52	367.66	0.00	0.00	0.00
1,900.00	23.59	172.10	1,831.82	-403.81	56.02	407.68	0.00	0.00	0.00
2,000.00	23.59	172.10	1,923.46	-443.45	61.52	447.70	0.00	0.00	0.00
2,100.00	23.59	172.10	2,015.11	-483.09	67.02	487.71	0.00	0.00	0.00
2,200.00	23.59	172.10	2,106.75	-522.72	72.52	527.73	0.00	0.00	0.00
2,300.00	23.59	172.10	2,198.39	-562.36	78.02	567.75	0.00	0.00	0.00
2,400.00	23.59	172.10	2,290.04	-602.00	83.52	607.77	0.00	0.00	0.00
2,500.00	23.59	172.10	2,381.68	-641.64	89.02	647.78	0.00	0.00	0.00
2,600.00	23.59	172.10	2,473.33	-681.28	94.52	687.80	0.00	0.00	0.00
2,700.00	23.59	172.10	2,564.97	-720.91	100.02	727.82	0.00	0.00	0.00
2,800.00	23.59	172.10	2,656.61	-760.55	105.52	767.84	0.00	0.00	0.00
2,900.00	23.59	172.10	2,748.26	-800.19	111.02	807.85	0.00	0.00	0.00
3,000.00	23.59	172.10	2,839.90	-839.83	116.52	847.87	0.00	0.00	0.00
3,100.00	23.59	172.10	2,931.54	-879.47	122.02	887.89	0.00	0.00	0.00
3,200.00	23.59	172.10	3,023.19	-919.10	127.52	927.91	0.00	0.00	0.00
3,300.00	23.59	172.10	3,114.83	-958.74	133.01	967.93	0.00	0.00	0.00
3,400.00	23.59	172.10	3,206.48	-998.38	138.51	1,007.94	0.00	0.00	0.00
3,500.00	23.59	172.10	3,298.12	-1,038.02	144.01	1,047.96	0.00	0.00	0.00
3,600.00	23.59	172.10	3,389.76	-1,077.66	149.51	1,087.98	0.00	0.00	0.00
3,700.00	23.59	172.10	3,481.41	-1,117.29	155.01	1,128.00	0.00	0.00	0.00
3,800.00	23.59	172.10	3,573.05	-1,156.93	160.51	1,168.01	0.00	0.00	0.00
3,900.00	23.59	172.10	3,664.69	-1,196.57	166.01	1,208.03	0.00	0.00	0.00
4,000.00	23.59	172.10	3,756.34	-1,236.21	171.51	1,248.05	0.00	0.00	0.00
4,100.00	23.59	172.10	3,847.98	-1,275.85	177.01	1,288.07	0.00	0.00	0.00
4,200.00	23.59	172.10	3,939.63	-1,315.49	182.51	1,328.09	0.00	0.00	0.00
4,244.06	23.59	172.10	3,980.00	-1,332.95	184.93	1,345.72	0.00	0.00	0.00
PK Depth									
4,300.00	23.59	172.10	4,031.27	-1,355.12	188.01	1,368.10	0.00	0.00	0.00
4,400.00	23.59	172.10	4,122.91	-1,394.76	193.51	1,408.12	0.00	0.00	0.00
4,500.00	23.59	172.10	4,214.56	-1,434.40	199.01	1,448.14	0.00	0.00	0.00
4,600.00	23.59	172.10	4,306.20	-1,474.04	204.51	1,488.16	0.00	0.00	0.00
4,700.00	23.59	172.10	4,397.85	-1,513.68	210.01	1,528.17	0.00	0.00	0.00
4,791.83	23.59	172.10	4,482.00	-1,550.07	215.06	1,564.92	0.00	0.00	0.00

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Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 37-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 37-32		
Design:	Carter 37-32 (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)
SX Depth									
4,800.00	23.59	172.10	4,489.49	-1,553.31	215.50	1,568.19	0.00	0.00	0.00
4,900.00	23.59	172.10	4,581.13	-1,592.95	221.00	1,608.21	0.00	0.00	0.00
5,000.00	23.59	172.10	4,672.78	-1,632.59	226.50	1,648.23	0.00	0.00	0.00
5,100.00	23.59	172.10	4,764.42	-1,672.23	232.00	1,688.24	0.00	0.00	0.00
5,200.00	23.59	172.10	4,856.06	-1,711.87	237.50	1,728.26	0.00	0.00	0.00
5,300.00	23.59	172.10	4,947.71	-1,751.50	243.00	1,768.28	0.00	0.00	0.00
5,400.00	23.59	172.10	5,039.35	-1,791.14	248.50	1,808.30	0.00	0.00	0.00
5,500.00	23.59	172.10	5,131.00	-1,830.78	254.00	1,848.32	0.00	0.00	0.00
5,600.00	23.59	172.10	5,222.64	-1,870.42	259.50	1,888.33	0.00	0.00	0.00
5,700.00	23.59	172.10	5,314.28	-1,910.06	265.00	1,928.35	0.00	0.00	0.00
5,800.00	23.59	172.10	5,405.93	-1,949.69	270.50	1,968.37	0.00	0.00	0.00
5,900.00	23.59	172.10	5,497.57	-1,989.33	276.00	2,008.39	0.00	0.00	0.00
5,926.44	23.59	172.10	5,521.80	-1,999.81	277.45	2,018.97	0.00	0.00	0.00
6,000.00	22.30	172.10	5,589.54	-2,028.22	281.39	2,047.64	1.75	-1.75	0.00
6,100.00	20.55	172.10	5,682.62	-2,064.40	286.41	2,084.17	1.75	-1.75	0.00
6,200.00	18.80	172.10	5,776.78	-2,097.75	291.04	2,117.85	1.75	-1.75	0.00
6,300.00	17.05	172.10	5,871.92	-2,128.24	295.27	2,148.62	1.75	-1.75	0.00
6,400.00	15.30	172.10	5,967.96	-2,155.83	299.10	2,176.48	1.75	-1.75	0.00
6,500.00	13.55	172.10	6,064.80	-2,180.51	302.52	2,201.40	1.75	-1.75	0.00
6,600.00	11.80	172.10	6,162.36	-2,202.25	305.54	2,223.34	1.75	-1.75	0.00
6,700.00	10.05	172.10	6,260.54	-2,221.02	308.14	2,242.30	1.75	-1.75	0.00
6,800.00	8.30	172.10	6,359.26	-2,236.82	310.33	2,258.24	1.75	-1.75	0.00
6,900.00	6.55	172.10	6,458.42	-2,249.62	312.11	2,271.17	1.75	-1.75	0.00
7,000.00	4.80	172.10	6,557.92	-2,259.42	313.47	2,281.06	1.75	-1.75	0.00
7,100.00	3.05	172.10	6,657.68	-2,266.20	314.41	2,287.91	1.75	-1.75	0.00
7,200.00	1.30	172.10	6,757.61	-2,269.97	314.93	2,291.71	1.75	-1.75	0.00
7,274.40	0.00	0.00	6,832.00	-2,270.80	315.05	2,292.55	1.75	-1.75	0.00
7,300.00	0.00	0.00	6,857.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,400.00	0.00	0.00	6,957.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,500.00	0.00	0.00	7,057.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,569.40	0.00	0.00	7,127.00	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
NIO Depth									
7,600.00	0.00	0.00	7,157.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,700.00	0.00	0.00	7,257.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,800.00	0.00	0.00	7,357.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,894.40	0.00	0.00	7,452.00	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
CD Depth									
7,900.00	0.00	0.00	7,457.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
7,984.40	0.00	0.00	7,542.00	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
GH Depth									
8,000.00	0.00	0.00	7,557.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
8,100.00	0.00	0.00	7,657.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
8,200.00	0.00	0.00	7,757.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
8,300.00	0.00	0.00	7,857.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
8,334.40	0.00	0.00	7,892.00	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
J Depth									
8,400.00	0.00	0.00	7,957.60	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
8,474.40	0.00	0.00	8,032.00	-2,270.80	315.05	2,292.55	0.00	0.00	0.00
Carter 37-32 BHL									

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Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 37-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 37-32		
Design:	Carter 37-32 (wp01)		

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Carter 37-32 BHL	0.00	0.00	8,032.00	-2,270.80	315.05	1,275,500.13	3,196,952.60	40.087493	-104.796073
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
802.57	800.00	8 5/8"	8-5/8	11

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,244.06	3,980.00	PK Depth			
4,791.83	4,482.00	SX Depth			
7,569.40	7,127.00	NIO Depth			
7,894.40	7,452.00	CD Depth			
7,984.40	7,542.00	GH Depth			
8,334.40	7,892.00	J Depth			