



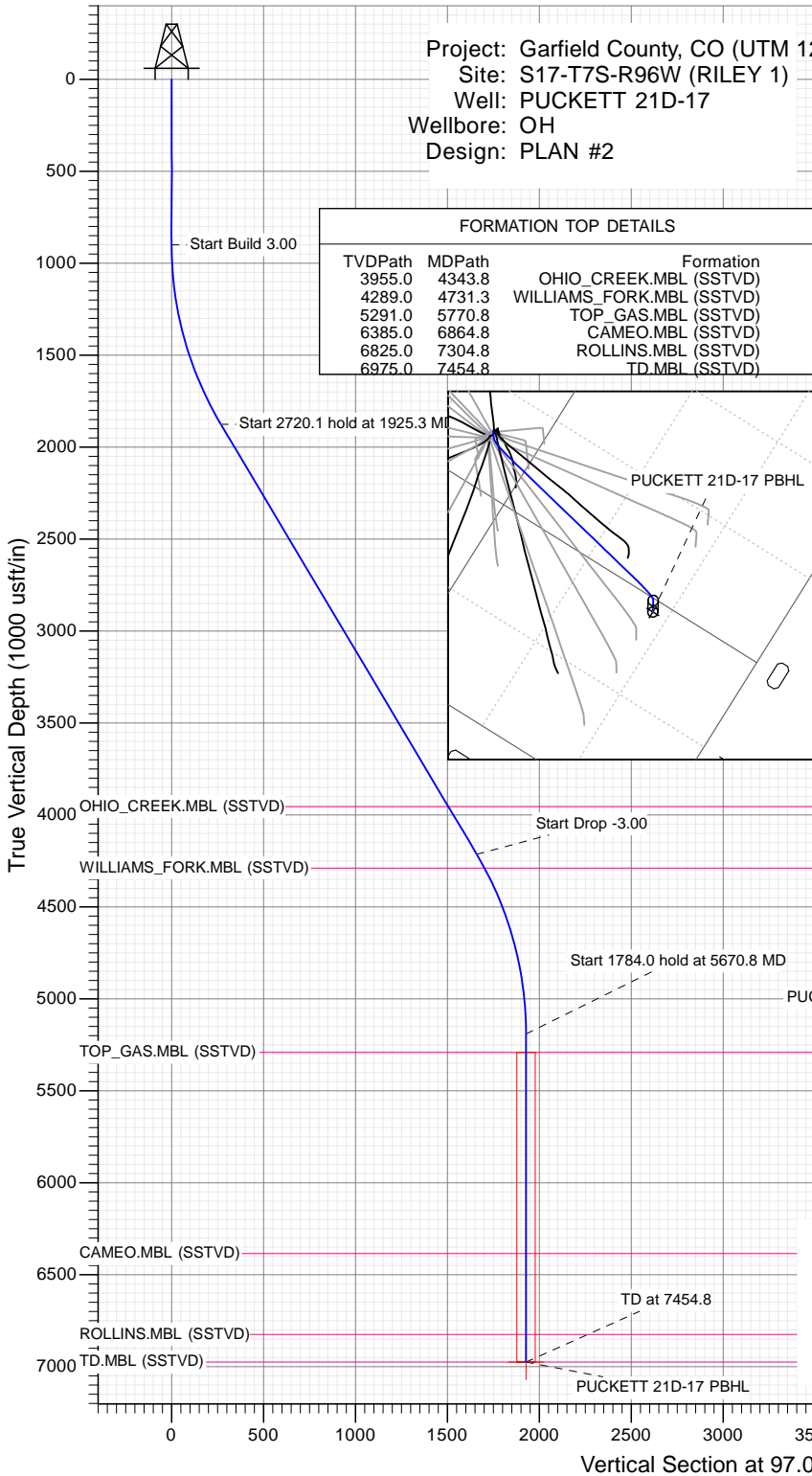
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1925.3	30.76	97.09	1876.8	-33.2	266.6	3.00	97.09	268.7	
4	4645.4	30.76	97.09	4214.2	-204.8	1647.2	0.00	0.00	1659.9	
5	5670.8	0.00	0.00	5191.0	-238.0	1913.8	3.00	180.00	1928.5	PUCKETT 21D-17 PBHL
6	7454.8	0.00	0.00	6975.0	-238.0	1913.8	0.00	0.00	1928.5	PUCKETT 21D-17 PBHL

Project: Garfield County, CO (UTM 12
 Site: S17-T7S-R96W (RILEY 1)
 Well: PUCKETT 21D-17
 Wellbore: OH
 Design: PLAN #2

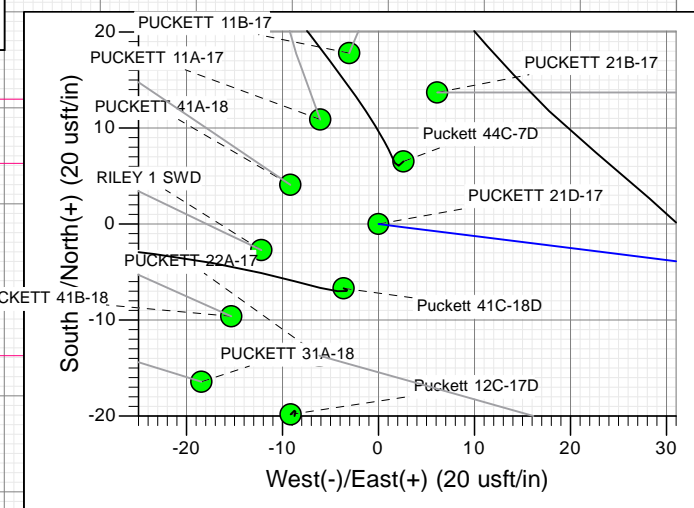
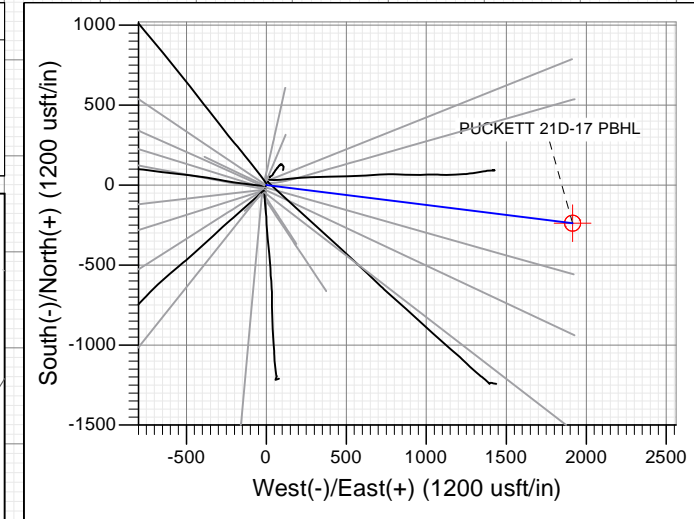
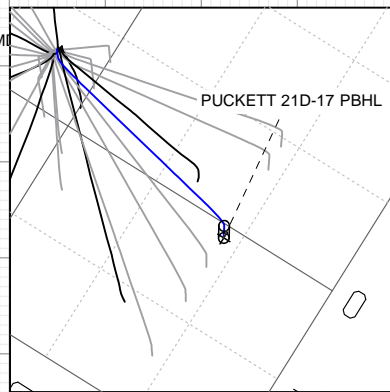
PLAN #2
 PUCKETT 21D-17
 15XXX; LR
 KB @ 6764.0usft
 Ground Level @ 6734.0
 NAD 1927 - Western US
 Well PUCKETT 21D-17, True North

Name	Type	TD	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
PUCKETT 21D-17 PBHL	TVD	6975.0	+N/-S	-238.0	97.09	Slot	0.0	+E/-W	1913.8
							Latitude		Longitude
							39.441323		-108.131163



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3955.0	4343.8	OHIO_CREEK.MBL (SSTVD)
4289.0	4731.3	WILLIAMS_FORK.MBL (SSTVD)
5291.0	5770.8	TOP_GAS.MBL (SSTVD)
6385.0	6864.8	CAMEO.MBL (SSTVD)
6825.0	7304.8	ROLLINS.MBL (SSTVD)
6975.0	7454.8	TD.MBL (SSTVD)



TM
 Azimuths to True North
 Magnetic North: 9.75°
 Magnetic Field
 Strength: 51971.4snT
 Dip Angle: 65.73°
 Date: 11/19/2015
 Model: HDGM

CASING DETAILS

No casing data is available



WELL DETAILS: PUCKETT 21D-17

		Ground Level: 6734.0			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14335687.10	2448513.00	39.441976	-108.137936



Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well PUCKETT 21D-17
Company: Caerus Oil & Gas	TVD Reference: KB @ 6764.0usft
Project: Garfield County, CO (UTM 12N)	MD Reference: KB @ 6764.0usft
Site: S17-T7S-R96W (RILEY 1)	North Reference: True
Well: PUCKETT 21D-17	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: PLAN #2	

Project Garfield County, CO (UTM 12N)	
Map System: Universal Transverse Mercator (US Survey Feet)	System Datum: Mean Sea Level
Geo Datum: NAD 1927 - Western US	
Map Zone: Zone 12N (114 W to 108 W)	

Site S17-T7S-R96W (RILEY 1)		
Site Position:	Northing: 14,335,697.50 usft	Latitude: 39.442005
From: Map	Easting: 2,448,508.30 usft	Longitude: -108.137952
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16"	Grid Convergence: 1.82 °

Well PUCKETT 21D-17			
Well Position	+N/-S 0.0 usft	Northing: 14,335,687.10 usft	Latitude: 39.441976
	+E/-W 0.0 usft	Easting: 2,448,513.00 usft	Longitude: -108.137936
Position Uncertainty	0.0 usft	Wellhead Elevation: 0.0 usft	Ground Level: 6,734.0 usft

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	HDGM	11/19/2015	(°) 9.75	(°) 65.73	(nT) 51,971

Design PLAN #2				
Audit Notes:				
Version:	Phase: PLAN	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	97.09

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,925.3	30.76	97.09	1,876.8	-33.2	266.6	3.00	3.00	0.00	97.09	
4,645.4	30.76	97.09	4,214.2	-204.8	1,647.2	0.00	0.00	0.00	0.00	
5,670.8	0.00	0.00	5,191.0	-238.0	1,913.8	3.00	-3.00	0.00	180.00	
7,454.8	0.00	0.00	6,975.0	-238.0	1,913.8	0.00	0.00	0.00	0.00	PUCKETT 21D-17 PE

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 21D-17
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 21D-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
1,000.0	3.00	97.09	1,000.0	-0.3	2.6	2.6	3.00	3.00	
1,100.0	6.00	97.09	1,099.6	-1.3	10.4	10.5	3.00	3.00	
1,200.0	9.00	97.09	1,198.8	-2.9	23.3	23.5	3.00	3.00	
1,300.0	12.00	97.09	1,297.1	-5.1	41.4	41.7	3.00	3.00	
1,400.0	15.00	97.09	1,394.3	-8.0	64.6	65.1	3.00	3.00	
1,500.0	18.00	97.09	1,490.2	-11.5	92.8	93.5	3.00	3.00	
1,600.0	21.00	97.09	1,584.4	-15.7	125.9	126.9	3.00	3.00	
1,700.0	24.00	97.09	1,676.8	-20.4	163.9	165.1	3.00	3.00	
1,800.0	27.00	97.09	1,767.1	-25.7	206.6	208.2	3.00	3.00	
1,900.0	30.00	97.09	1,854.9	-31.6	253.9	255.9	3.00	3.00	
1,925.3	30.76	97.09	1,876.8	-33.2	266.6	268.7	3.00	3.00	Start 2720.1 hold at 1925.3 MD
2,000.0	30.76	97.09	1,940.9	-37.9	304.5	306.9	0.00	0.00	
2,100.0	30.76	97.09	2,026.9	-44.2	355.3	358.0	0.00	0.00	
2,200.0	30.76	97.09	2,112.8	-50.5	406.0	409.2	0.00	0.00	
2,300.0	30.76	97.09	2,198.7	-56.8	456.8	460.3	0.00	0.00	
2,400.0	30.76	97.09	2,284.7	-63.1	507.5	511.4	0.00	0.00	
2,500.0	30.76	97.09	2,370.6	-69.4	558.3	562.6	0.00	0.00	
2,600.0	30.76	97.09	2,456.5	-75.7	609.0	613.7	0.00	0.00	
2,700.0	30.76	97.09	2,542.5	-82.0	659.8	664.9	0.00	0.00	
2,800.0	30.76	97.09	2,628.4	-88.4	710.6	716.0	0.00	0.00	
2,900.0	30.76	97.09	2,714.3	-94.7	761.3	767.2	0.00	0.00	
3,000.0	30.76	97.09	2,800.3	-101.0	812.1	818.3	0.00	0.00	
3,100.0	30.76	97.09	2,886.2	-107.3	862.8	869.5	0.00	0.00	
3,200.0	30.76	97.09	2,972.1	-113.6	913.6	920.6	0.00	0.00	
3,300.0	30.76	97.09	3,058.1	-119.9	964.3	971.7	0.00	0.00	
3,400.0	30.76	97.09	3,144.0	-126.2	1,015.1	1,022.9	0.00	0.00	
3,500.0	30.76	97.09	3,229.9	-132.5	1,065.8	1,074.0	0.00	0.00	
3,600.0	30.76	97.09	3,315.9	-138.8	1,116.6	1,125.2	0.00	0.00	
3,700.0	30.76	97.09	3,401.8	-145.2	1,167.3	1,176.3	0.00	0.00	
3,800.0	30.76	97.09	3,487.7	-151.5	1,218.1	1,227.5	0.00	0.00	
3,900.0	30.76	97.09	3,573.6	-157.8	1,268.8	1,278.6	0.00	0.00	
4,000.0	30.76	97.09	3,659.6	-164.1	1,319.6	1,329.8	0.00	0.00	
4,100.0	30.76	97.09	3,745.5	-170.4	1,370.4	1,380.9	0.00	0.00	
4,200.0	30.76	97.09	3,831.4	-176.7	1,421.1	1,432.0	0.00	0.00	
4,300.0	30.76	97.09	3,917.4	-183.0	1,471.9	1,483.2	0.00	0.00	
4,343.8	30.76	97.09	3,955.0	-185.8	1,494.1	1,505.6	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
4,400.0	30.76	97.09	4,003.3	-189.3	1,522.6	1,534.3	0.00	0.00	
4,500.0	30.76	97.09	4,089.2	-195.6	1,573.4	1,585.5	0.00	0.00	
4,600.0	30.76	97.09	4,175.2	-202.0	1,624.1	1,636.6	0.00	0.00	
4,645.4	30.76	97.09	4,214.2	-204.8	1,647.2	1,659.9	0.00	0.00	Start Drop -3.00
4,700.0	29.12	97.09	4,261.5	-208.2	1,674.2	1,687.1	3.00	-3.00	
4,731.3	28.18	97.09	4,289.0	-210.0	1,689.1	1,702.1	3.00	-3.00	WILLIAMS_FORK.MBL (SSTVD)

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well PUCKETT 21D-17
Company: Caerus Oil & Gas	TVD Reference: KB @ 6764.0usft
Project: Garfield County, CO (UTM 12N)	MD Reference: KB @ 6764.0usft
Site: S17-T7S-R96W (RILEY 1)	North Reference: True
Well: PUCKETT 21D-17	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: PLAN #2	

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,800.0	26.12	97.09	4,350.1	-213.9	1,720.2	1,733.5	3.00	-3.00	
4,900.0	23.12	97.09	4,441.0	-219.0	1,761.5	1,775.1	3.00	-3.00	
5,000.0	20.12	97.09	4,533.9	-223.6	1,798.1	1,812.0	3.00	-3.00	
5,100.0	17.12	97.09	4,628.7	-227.5	1,829.8	1,843.9	3.00	-3.00	
5,200.0	14.12	97.09	4,725.0	-230.9	1,856.5	1,870.8	3.00	-3.00	
5,300.0	11.12	97.09	4,822.6	-233.6	1,878.2	1,892.7	3.00	-3.00	
5,400.0	8.12	97.09	4,921.1	-235.6	1,894.8	1,909.4	3.00	-3.00	
5,500.0	5.12	97.09	5,020.5	-237.0	1,906.2	1,920.9	3.00	-3.00	
5,600.0	2.12	97.09	5,120.2	-237.8	1,912.5	1,927.2	3.00	-3.00	
5,670.8	0.00	0.00	5,191.0	-238.0	1,913.8	1,928.5	3.00	-3.00	Start 1784.0 hold at 5670.8 MD
5,700.0	0.00	0.00	5,220.2	-238.0	1,913.8	1,928.5	0.00	0.00	
5,770.8	0.00	0.00	5,291.0	-238.0	1,913.8	1,928.5	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,800.0	0.00	0.00	5,320.2	-238.0	1,913.8	1,928.5	0.00	0.00	
5,900.0	0.00	0.00	5,420.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,000.0	0.00	0.00	5,520.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,100.0	0.00	0.00	5,620.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,200.0	0.00	0.00	5,720.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,300.0	0.00	0.00	5,820.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,400.0	0.00	0.00	5,920.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,500.0	0.00	0.00	6,020.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,600.0	0.00	0.00	6,120.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,700.0	0.00	0.00	6,220.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,800.0	0.00	0.00	6,320.2	-238.0	1,913.8	1,928.5	0.00	0.00	
6,864.8	0.00	0.00	6,385.0	-238.0	1,913.8	1,928.5	0.00	0.00	CAMEO.MBL (SSTVD)
6,900.0	0.00	0.00	6,420.2	-238.0	1,913.8	1,928.5	0.00	0.00	
7,000.0	0.00	0.00	6,520.2	-238.0	1,913.8	1,928.5	0.00	0.00	
7,100.0	0.00	0.00	6,620.2	-238.0	1,913.8	1,928.5	0.00	0.00	
7,200.0	0.00	0.00	6,720.2	-238.0	1,913.8	1,928.5	0.00	0.00	
7,300.0	0.00	0.00	6,820.2	-238.0	1,913.8	1,928.5	0.00	0.00	
7,304.8	0.00	0.00	6,825.0	-238.0	1,913.8	1,928.5	0.00	0.00	ROLLINS.MBL (SSTVD)
7,400.0	0.00	0.00	6,920.2	-238.0	1,913.8	1,928.5	0.00	0.00	
7,454.8	0.00	0.00	6,975.0	-238.0	1,913.8	1,928.5	0.00	0.00	TD at 7454.8 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 21D-17 PBHI - hit/miss target - Shape - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,975.0	-238.0	1,913.8	14,335,510.00	2,450,433.40	39.441323	-108.131163

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 21D-17
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 21D-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,343.8	3,955.0	OHIO_CREEK.MBL (SSTVD)		0.00	
4,731.3	4,289.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
5,770.8	5,291.0	TOP_GAS.MBL (SSTVD)		0.00	
6,864.8	6,385.0	CAMEO.MBL (SSTVD)		0.00	
7,304.8	6,825.0	ROLLINS.MBL (SSTVD)		0.00	
7,454.8	6,975.0	TD.MBL (SSTVD)		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
900.0	900.0	0.0	0.0	Start Build 3.00	
1,925.3	1,876.8	-33.2	266.6	Start 2720.1 hold at 1925.3 MD	
4,645.4	4,214.2	-204.8	1,647.2	Start Drop -3.00	
5,670.8	5,191.0	-238.0	1,913.8	Start 1784.0 hold at 5670.8 MD	
7,454.8	6,975.0	-238.0	1,913.8	TD at 7454.8	