



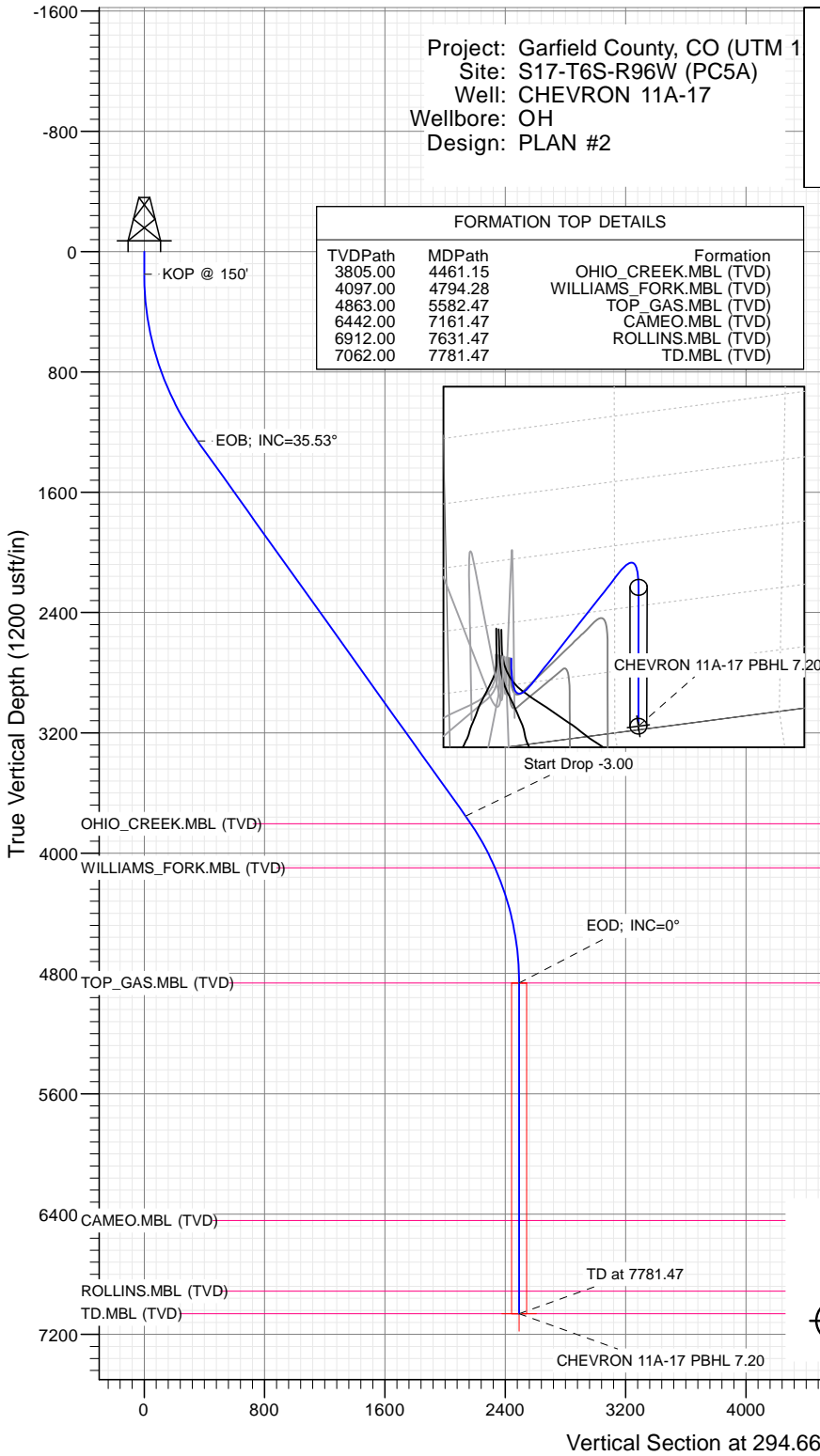
SECTION DETAILS

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	150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	
3	1334.45	35.53	294.66	1259.97	148.38	-323.23	3.00	294.66	355.66	
4	4398.02	35.53	294.66	3753.03	891.20	-1941.36	0.00	0.002136.14		
5	5582.47	0.00	0.00	4863.00	1039.58	-2264.59	3.00	180.002491.80		
6	7781.47	0.00	0.00	7062.00	1039.58	-2264.59	0.00	0.002491.80		CHEVRON 11A-17 PBHL 7.20

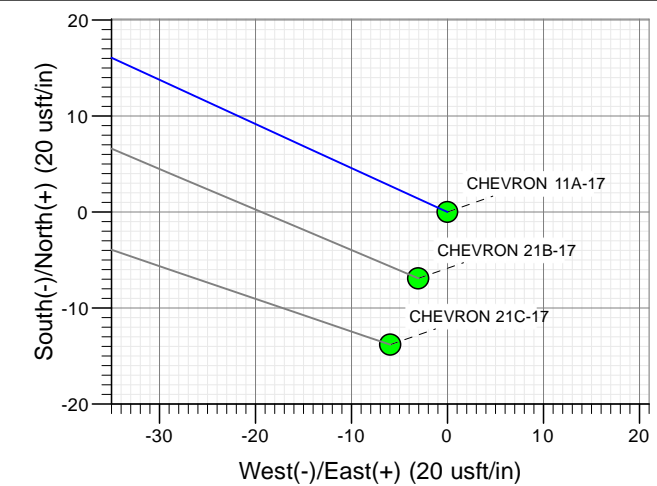
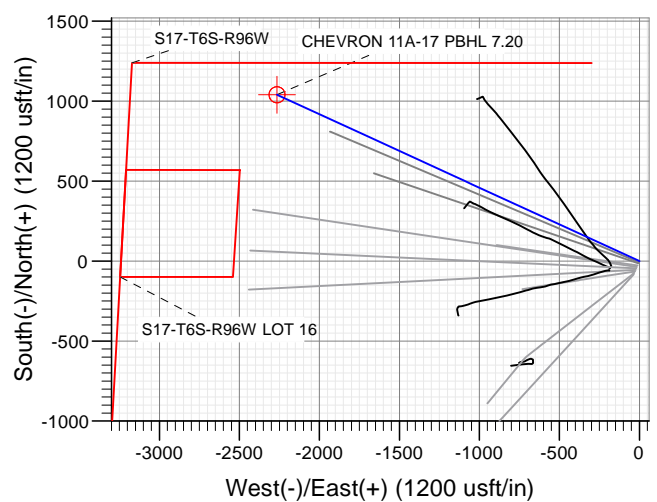
Project: Garfield County, CO (UTM 1
Site: S17-T6S-R96W (PC5A)
Well: CHEVRON 11A-17
Wellbore: OH
Design: PLAN #2

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3805.00	4461.15	OHIO_CREEK.MBL (TVD)
4097.00	4794.28	WILLIAMS_FORK.MBL (TVD)
4863.00	5582.47	TOP_GAS.MBL (TVD)
6442.00	7161.47	CAMEO.MBL (TVD)
6912.00	7631.47	ROLLINS.MBL (TVD)
7062.00	7781.47	TD.MBL (TVD)



Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
Name	TD	Target	TVD	Slot	+N/-S	+E/-W	0.00
CHEVRON 11A-17 PBHL 7.20			7062.00	1039.58	-2264.59	39.531196	-108.136983
CHEVRON 11A-17 PBHL			7092.00	1039.58	-2264.59	39.531196	-108.136983



Azimuths to True North
Magnetic North: 9.82°

Magnetic Field
Strength: 51888.8snT
Dip Angle: 65.93°
Date: 11/10/2015
Model: HDGM

CASING DETAILS

No casing data is available

WELL DETAILS: CHEVRON 11A-17

+N/-S	+E/-W	Northing	Ground Level:	5583.00	Latitude	Longitude
0.00	0.00	14367221.80	Easting	2450045.40	39.528344	-108.128958

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 11A-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-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-T6S-R96W (PC5A)		
Site Position:		Northing:	14,367,212.50 usft
From:	Map	Easting:	2,450,041.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	39.528318
		Longitude:	-108.128972
		Grid Convergence:	1.83 °

Well	CHEVRON 11A-17		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	39.528344
		Longitude:	-108.128958
		Ground Level:	5,583.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/10/2015	9.82	65.93	51,889

Design	PLAN #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	294.66

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,334.45	35.53	294.66	1,259.97	148.38	-323.23	3.00	3.00	0.00	294.66	
4,398.02	35.53	294.66	3,753.03	891.20	-1,941.36	0.00	0.00	0.00	0.00	
5,582.47	0.00	0.00	4,863.00	1,039.58	-2,264.59	3.00	-3.00	0.00	180.00	
7,781.47	0.00	0.00	7,062.00	1,039.58	-2,264.59	0.00	0.00	0.00	0.00	CHEVRON 11A-17 PI

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 11A-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-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
0.00	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	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	KOP @ 150'
200.00	1.50	294.66	199.99	0.27	-0.59	0.65	3.00	3.00	
300.00	4.50	294.66	299.85	2.46	-5.35	5.89	3.00	3.00	
400.00	7.50	294.66	399.29	6.82	-14.85	16.34	3.00	3.00	
500.00	10.50	294.66	498.04	13.34	-29.06	31.98	3.00	3.00	
600.00	13.50	294.66	595.85	22.02	-47.96	52.77	3.00	3.00	
700.00	16.50	294.66	692.43	32.81	-71.48	78.65	3.00	3.00	
800.00	19.50	294.66	787.52	45.70	-99.56	109.55	3.00	3.00	
900.00	22.50	294.66	880.87	60.65	-132.12	145.38	3.00	3.00	
1,000.00	25.50	294.66	972.22	77.62	-169.08	186.05	3.00	3.00	
1,100.00	28.50	294.66	1,061.31	96.56	-210.34	231.44	3.00	3.00	
1,200.00	31.50	294.66	1,147.90	117.42	-255.77	281.44	3.00	3.00	
1,300.00	34.50	294.66	1,231.76	140.14	-305.27	335.89	3.00	3.00	
1,334.45	35.53	294.66	1,259.97	148.38	-323.23	355.66	3.00	3.00	EOB; INC=35.53°
1,400.00	35.53	294.66	1,313.31	164.28	-357.85	393.76	0.00	0.00	
1,500.00	35.53	294.66	1,394.69	188.52	-410.67	451.88	0.00	0.00	
1,600.00	35.53	294.66	1,476.07	212.77	-463.49	509.99	0.00	0.00	
1,700.00	35.53	294.66	1,557.45	237.02	-516.31	568.11	0.00	0.00	
1,800.00	35.53	294.66	1,638.82	261.26	-569.13	626.23	0.00	0.00	
1,900.00	35.53	294.66	1,720.20	285.51	-621.94	684.35	0.00	0.00	
2,000.00	35.53	294.66	1,801.58	309.76	-674.76	742.46	0.00	0.00	
2,100.00	35.53	294.66	1,882.96	334.00	-727.58	800.58	0.00	0.00	
2,200.00	35.53	294.66	1,964.33	358.25	-780.40	858.70	0.00	0.00	
2,300.00	35.53	294.66	2,045.71	382.50	-833.22	916.82	0.00	0.00	
2,400.00	35.53	294.66	2,127.09	406.74	-886.04	974.94	0.00	0.00	
2,500.00	35.53	294.66	2,208.47	430.99	-938.85	1,033.05	0.00	0.00	
2,600.00	35.53	294.66	2,289.84	455.24	-991.67	1,091.17	0.00	0.00	
2,700.00	35.53	294.66	2,371.22	479.48	-1,044.49	1,149.29	0.00	0.00	
2,800.00	35.53	294.66	2,452.60	503.73	-1,097.31	1,207.41	0.00	0.00	
2,900.00	35.53	294.66	2,533.98	527.98	-1,150.13	1,265.52	0.00	0.00	
3,000.00	35.53	294.66	2,615.36	552.22	-1,202.95	1,323.64	0.00	0.00	
3,100.00	35.53	294.66	2,696.73	576.47	-1,255.76	1,381.76	0.00	0.00	
3,200.00	35.53	294.66	2,778.11	600.72	-1,308.58	1,439.88	0.00	0.00	
3,300.00	35.53	294.66	2,859.49	624.96	-1,361.40	1,498.00	0.00	0.00	
3,400.00	35.53	294.66	2,940.87	649.21	-1,414.22	1,556.11	0.00	0.00	
3,500.00	35.53	294.66	3,022.24	673.46	-1,467.04	1,614.23	0.00	0.00	
3,600.00	35.53	294.66	3,103.62	697.70	-1,519.85	1,672.35	0.00	0.00	
3,700.00	35.53	294.66	3,185.00	721.95	-1,572.67	1,730.47	0.00	0.00	
3,800.00	35.53	294.66	3,266.38	746.20	-1,625.49	1,788.58	0.00	0.00	
3,900.00	35.53	294.66	3,347.75	770.45	-1,678.31	1,846.70	0.00	0.00	
4,000.00	35.53	294.66	3,429.13	794.69	-1,731.13	1,904.82	0.00	0.00	
4,100.00	35.53	294.66	3,510.51	818.94	-1,783.95	1,962.94	0.00	0.00	
4,200.00	35.53	294.66	3,591.89	843.19	-1,836.76	2,021.06	0.00	0.00	
4,300.00	35.53	294.66	3,673.27	867.43	-1,889.58	2,079.17	0.00	0.00	
4,398.02	35.53	294.66	3,753.03	891.20	-1,941.36	2,136.14	0.00	0.00	Start Drop -3.00
4,400.00	35.47	294.66	3,754.64	891.68	-1,942.40	2,137.29	3.00	-3.00	
4,461.15	33.64	294.66	3,805.00	906.15	-1,973.92	2,171.97	3.00	-3.00	OHIO_CREEK.MBL (TVD)
4,500.00	32.47	294.66	3,837.56	914.99	-1,993.18	2,193.17	3.00	-3.00	
4,600.00	29.47	294.66	3,923.29	936.46	-2,039.95	2,244.62	3.00	-3.00	
4,700.00	26.47	294.66	4,011.60	956.03	-2,082.57	2,291.53	3.00	-3.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 11A-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-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
4,794.28	23.65	294.66	4,097.00	972.69	-2,118.86	2,331.46	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
4,800.00	23.47	294.66	4,102.24	973.64	-2,120.94	2,333.74	3.00	-3.00	
4,900.00	20.47	294.66	4,194.96	989.25	-2,154.94	2,371.16	3.00	-3.00	
5,000.00	17.47	294.66	4,289.52	1,002.81	-2,184.49	2,403.67	3.00	-3.00	
5,100.00	14.47	294.66	4,385.65	1,014.29	-2,209.50	2,431.18	3.00	-3.00	
5,200.00	11.47	294.66	4,483.08	1,023.66	-2,229.90	2,453.63	3.00	-3.00	
5,300.00	8.47	294.66	4,581.56	1,030.88	-2,245.64	2,470.95	3.00	-3.00	
5,400.00	5.47	294.66	4,680.81	1,035.95	-2,256.67	2,483.09	3.00	-3.00	
5,500.00	2.47	294.66	4,780.56	1,038.84	-2,262.97	2,490.02	3.00	-3.00	
5,582.47	0.00	0.00	4,863.00	1,039.58	-2,264.59	2,491.80	3.00	-3.00	EOD; INC=0° - TOP_GAS.MBL (TVD)
5,600.00	0.00	0.00	4,880.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
5,700.00	0.00	0.00	4,980.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
5,800.00	0.00	0.00	5,080.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
5,900.00	0.00	0.00	5,180.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,000.00	0.00	0.00	5,280.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,100.00	0.00	0.00	5,380.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,200.00	0.00	0.00	5,480.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,300.00	0.00	0.00	5,580.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,400.00	0.00	0.00	5,680.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,500.00	0.00	0.00	5,780.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,600.00	0.00	0.00	5,880.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,700.00	0.00	0.00	5,980.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,800.00	0.00	0.00	6,080.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
6,900.00	0.00	0.00	6,180.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,000.00	0.00	0.00	6,280.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,100.00	0.00	0.00	6,380.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,161.47	0.00	0.00	6,442.00	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,200.00	0.00	0.00	6,480.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	CAMEO.MBL (TVD)
7,300.00	0.00	0.00	6,580.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,400.00	0.00	0.00	6,680.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,500.00	0.00	0.00	6,780.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,600.00	0.00	0.00	6,880.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,631.47	0.00	0.00	6,912.00	1,039.58	-2,264.59	2,491.80	0.00	0.00	
7,700.00	0.00	0.00	6,980.53	1,039.58	-2,264.59	2,491.80	0.00	0.00	ROLLINS.MBL (TVD)
7,781.47	0.00	0.00	7,062.00	1,039.58	-2,264.59	2,491.80	0.00	0.00	
									TD at 7781.47

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
CHEVRON 11A-17 PBH	0.00	0.00	7,062.00	1,039.58	-2,264.59	14,368,188.60	2,447,748.80	39.531196	-108.136983
- plan hits target center									
- Circle (radius 50.00)									
CHEVRON 11A-17 PBH	0.00	0.00	7,092.00	1,039.58	-2,264.59	14,368,188.60	2,447,748.80	39.531196	-108.136983
- plan misses target center by 30.00usft at 7781.47usft MD (7062.00 TVD, 1039.58 N, -2264.59 E)									
- Circle (radius 50.00)									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 11A-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,461.15	3,805.00	OHIO_CREEK.MBL (TVD)			
4,794.28	4,097.00	WILLIAMS_FORK.MBL (TVD)			
5,582.47	4,863.00	TOP_GAS.MBL (TVD)			
7,161.47	6,442.00	CAMEO.MBL (TVD)			
7,631.47	6,912.00	ROLLINS.MBL (TVD)			
7,781.47	7,062.00	TD.MBL (TVD)			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
150.00	150.00	0.00	0.00	KOP @ 150'
1,334.45	1,259.97	148.38	-323.23	EOB; INC=35.53°
4,398.02	3,753.03	891.20	-1,941.36	Start Drop -3.00
5,582.47	4,863.00	1,039.58	-2,264.59	EOD; INC=0°
7,781.47	7,062.00	1,039.58	-2,264.59	TD at 7781.47