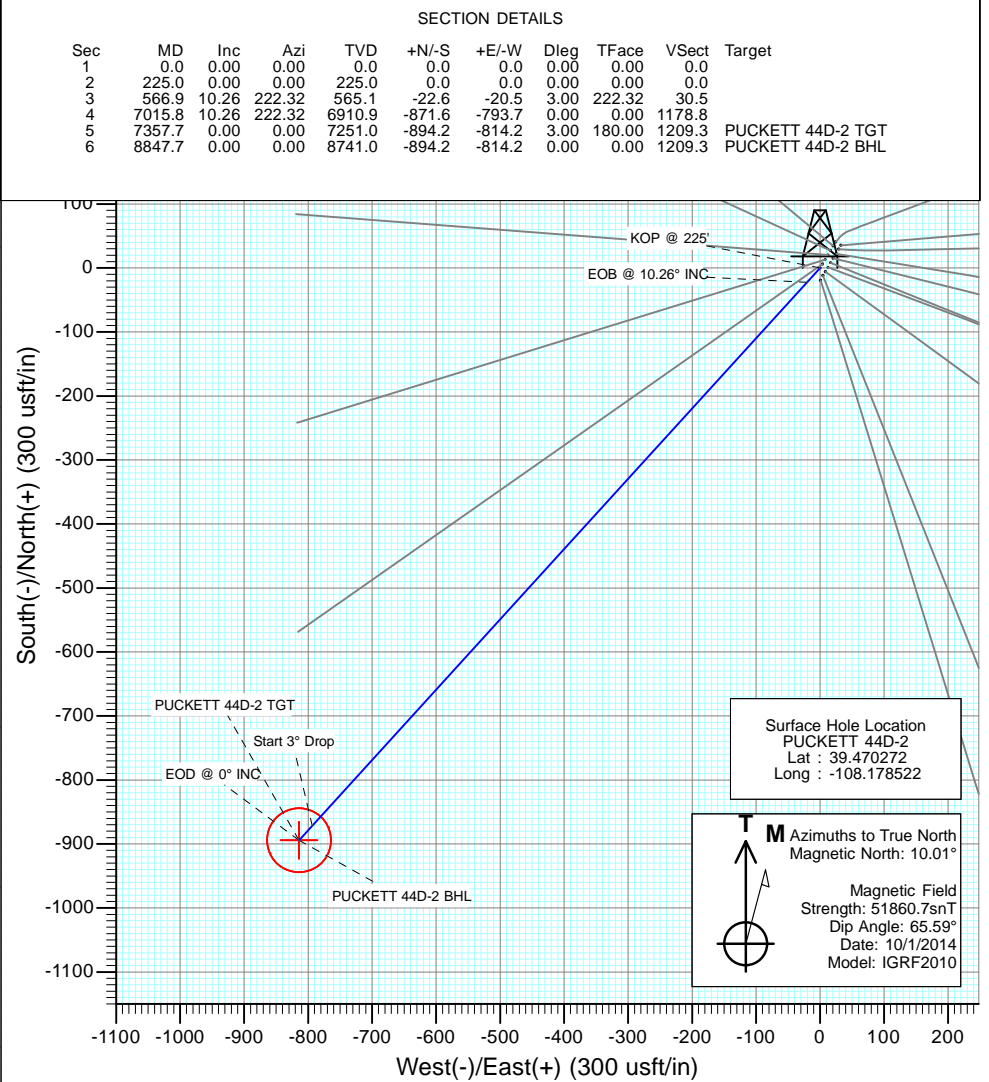
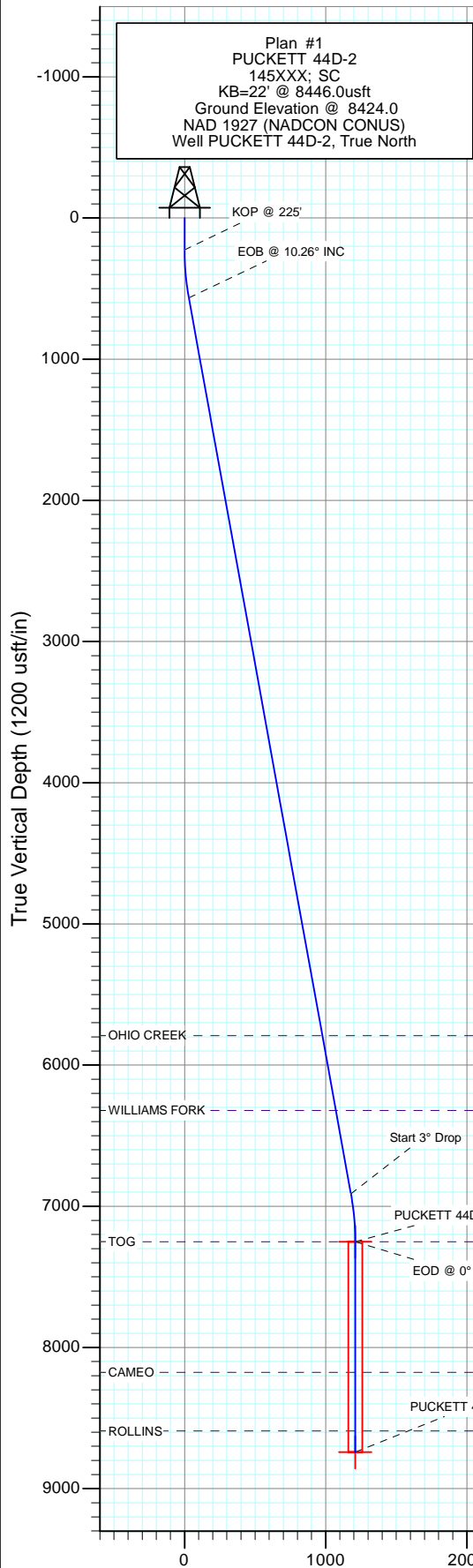




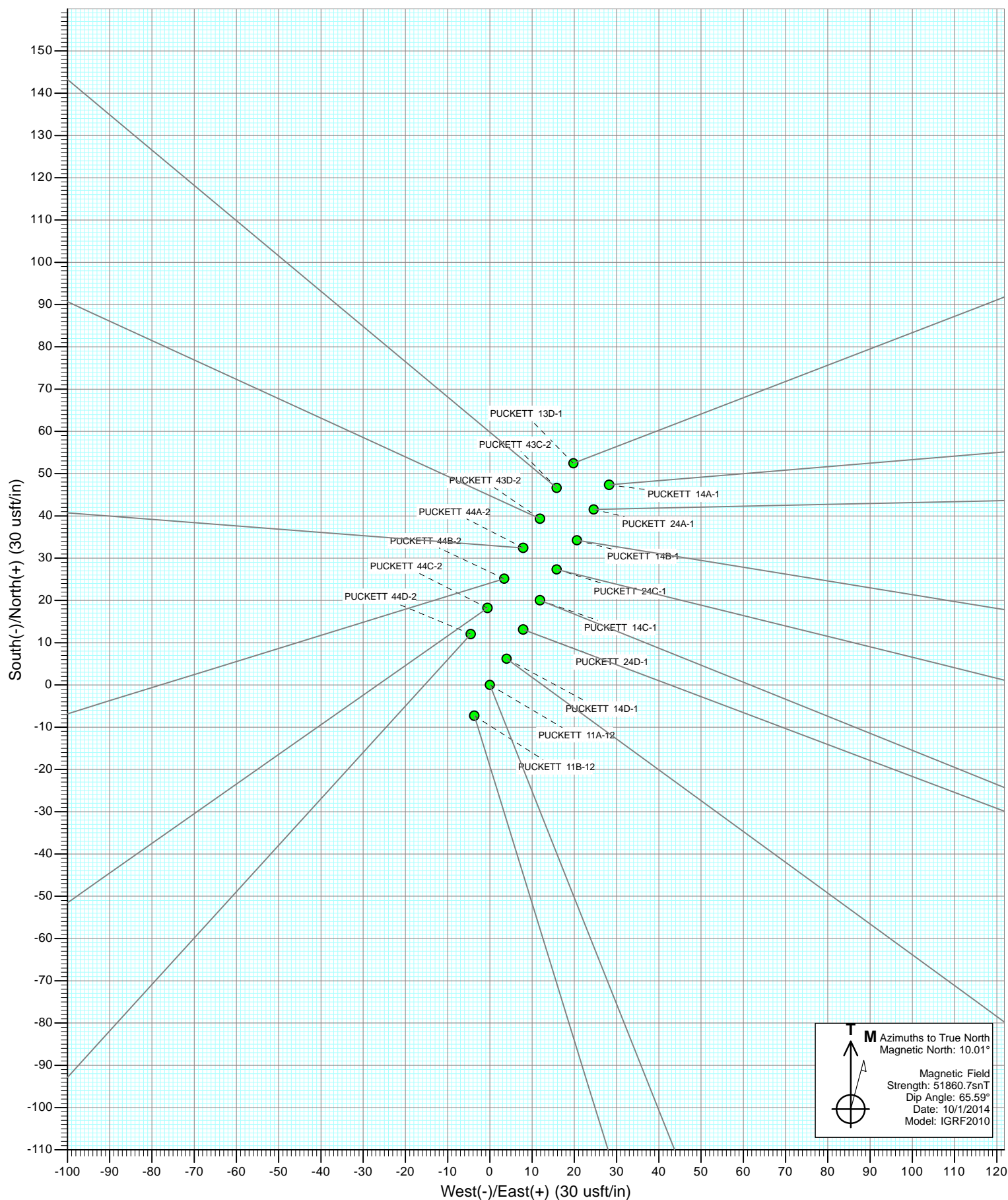
Project: Garfield County, CO  
 Site: S2-T7S-R97W (Puckett Pad P2)  
 Well: PUCKETT 44D-2  
 Wellbore: DD  
 Design: Plan #1

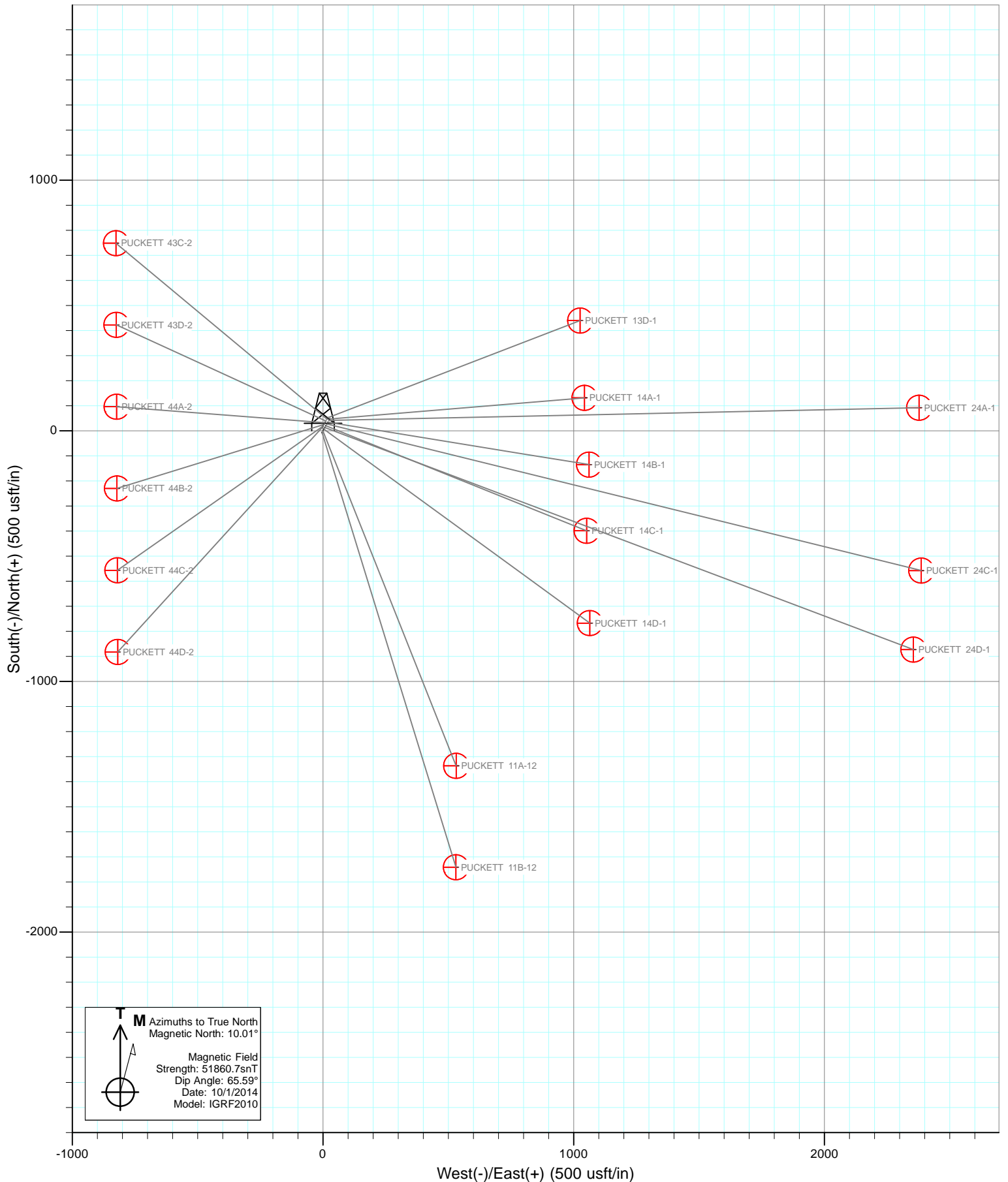


DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 44D-2 TGT	-894.2	-814.2	606440.60	1243093.26	39.467817	-108.181406
PUCKETT 44D-2 BHL	-894.2	-814.2	606440.60	1243093.26	39.467817	-108.181406

Vertical Section at 222.32° (1200 usft/in)





# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

<b>Project</b>	Garfield County, CO		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado Central 502		

Site		S2-T7S-R97W (Puckett Pad P2)			
Site Position:		Northing:	607,291.06 usft	Latitude:	39.470219
From:	Lat/Long	Easting:	1,243,933.75 usft	Longitude:	-108.178519
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.69 °

Well	PUCKETT 44D-2					
Well Position	+N/-S	0.0 usft	Northing:	607,310.38 usft	Latitude:	39.470272
	+E/-W	0.0 usft	Easting:	1,243,933.48 usft	Longitude:	-108.178522
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,424.0 usft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/1/2014	10.00	65.59	51,861

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	222.32

<b>Plan Sections</b>										
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	
225.0	0.00	0.00	225.0	0.0	0.0	0.00	0.00	0.00	0.00	
566.9	10.26	222.32	565.1	-22.6	-20.5	3.00	3.00	0.00	222.32	
7,015.8	10.26	222.32	6,910.9	-871.6	-793.7	0.00	0.00	0.00	0.00	
7,357.7	0.00	0.00	7,251.0	-894.2	-814.2	3.00	-3.00	0.00	180.00	PUCKETT 44D-2 TG1
8,847.7	0.00	0.00	8,741.0	-894.2	-814.2	0.00	0.00	0.00	0.00	PUCKETT 44D-2 BHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

### 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	
225.0	0.00	0.00	225.0	0.0	0.0	0.0	0.00	0.00	KOP @ 225'
300.0	2.25	222.32	300.0	-1.1	-1.0	1.5	3.00	3.00	
400.0	5.25	222.32	399.8	-5.9	-5.4	8.0	3.00	3.00	
500.0	8.25	222.32	499.1	-14.6	-13.3	19.8	3.00	3.00	
566.9	10.26	222.32	565.1	-22.6	-20.5	30.5	3.00	3.00	EOB @ 10.26° INC
600.0	10.26	222.32	597.6	-26.9	-24.5	36.4	0.00	0.00	
700.0	10.26	222.32	696.0	-40.1	-36.5	54.2	0.00	0.00	
800.0	10.26	222.32	794.5	-53.3	-48.5	72.0	0.00	0.00	
900.0	10.26	222.32	892.9	-66.4	-60.5	89.8	0.00	0.00	
1,000.0	10.26	222.32	991.3	-79.6	-72.5	107.6	0.00	0.00	
1,100.0	10.26	222.32	1,089.7	-92.8	-84.5	125.4	0.00	0.00	
1,200.0	10.26	222.32	1,188.1	-105.9	-96.4	143.3	0.00	0.00	
1,300.0	10.26	222.32	1,286.5	-119.1	-108.4	161.1	0.00	0.00	
1,400.0	10.26	222.32	1,384.9	-132.2	-120.4	178.9	0.00	0.00	
1,500.0	10.26	222.32	1,483.3	-145.4	-132.4	196.7	0.00	0.00	
1,600.0	10.26	222.32	1,581.7	-158.6	-144.4	214.5	0.00	0.00	
1,700.0	10.26	222.32	1,680.1	-171.7	-156.4	232.3	0.00	0.00	
1,800.0	10.26	222.32	1,778.5	-184.9	-168.4	250.1	0.00	0.00	
1,900.0	10.26	222.32	1,876.9	-198.1	-180.4	267.9	0.00	0.00	
2,000.0	10.26	222.32	1,975.3	-211.2	-192.4	285.7	0.00	0.00	
2,100.0	10.26	222.32	2,073.7	-224.4	-204.3	303.5	0.00	0.00	
2,200.0	10.26	222.32	2,172.1	-237.6	-216.3	321.3	0.00	0.00	
2,300.0	10.26	222.32	2,270.5	-250.7	-228.3	339.1	0.00	0.00	
2,400.0	10.26	222.32	2,368.9	-263.9	-240.3	356.9	0.00	0.00	
2,500.0	10.26	222.32	2,467.3	-277.1	-252.3	374.7	0.00	0.00	
2,600.0	10.26	222.32	2,565.7	-290.2	-264.3	392.5	0.00	0.00	
2,700.0	10.26	222.32	2,664.1	-303.4	-276.3	410.3	0.00	0.00	
2,800.0	10.26	222.32	2,762.5	-316.6	-288.3	428.1	0.00	0.00	
2,900.0	10.26	222.32	2,860.9	-329.7	-300.2	446.0	0.00	0.00	
3,000.0	10.26	222.32	2,959.3	-342.9	-312.2	463.8	0.00	0.00	
3,100.0	10.26	222.32	3,057.7	-356.1	-324.2	481.6	0.00	0.00	
3,200.0	10.26	222.32	3,156.1	-369.2	-336.2	499.4	0.00	0.00	
3,300.0	10.26	222.32	3,254.5	-382.4	-348.2	517.2	0.00	0.00	
3,400.0	10.26	222.32	3,352.9	-395.6	-360.2	535.0	0.00	0.00	
3,500.0	10.26	222.32	3,451.3	-408.7	-372.2	552.8	0.00	0.00	
3,600.0	10.26	222.32	3,549.7	-421.9	-384.2	570.6	0.00	0.00	
3,700.0	10.26	222.32	3,648.1	-435.1	-396.2	588.4	0.00	0.00	
3,800.0	10.26	222.32	3,746.5	-448.2	-408.1	606.2	0.00	0.00	
3,900.0	10.26	222.32	3,844.9	-461.4	-420.1	624.0	0.00	0.00	
4,000.0	10.26	222.32	3,943.3	-474.6	-432.1	641.8	0.00	0.00	
4,100.0	10.26	222.32	4,041.7	-487.7	-444.1	659.6	0.00	0.00	
4,200.0	10.26	222.32	4,140.1	-500.9	-456.1	677.4	0.00	0.00	
4,300.0	10.26	222.32	4,238.5	-514.0	-468.1	695.2	0.00	0.00	
4,400.0	10.26	222.32	4,336.9	-527.2	-480.1	713.0	0.00	0.00	
4,500.0	10.26	222.32	4,435.3	-540.4	-492.1	730.8	0.00	0.00	
4,600.0	10.26	222.32	4,533.7	-553.5	-504.0	748.7	0.00	0.00	
4,700.0	10.26	222.32	4,632.1	-566.7	-516.0	766.5	0.00	0.00	
4,800.0	10.26	222.32	4,730.5	-579.9	-528.0	784.3	0.00	0.00	
4,900.0	10.26	222.32	4,828.9	-593.0	-540.0	802.1	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

### 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
5,000.0	10.26	222.32	4,927.3	-606.2	-552.0	819.9	0.00	0.00	
5,100.0	10.26	222.32	5,025.7	-619.4	-564.0	837.7	0.00	0.00	
5,200.0	10.26	222.32	5,124.1	-632.5	-576.0	855.5	0.00	0.00	
5,300.0	10.26	222.32	5,222.5	-645.7	-588.0	873.3	0.00	0.00	
5,400.0	10.26	222.32	5,320.9	-658.9	-600.0	891.1	0.00	0.00	
5,500.0	10.26	222.32	5,419.3	-672.0	-611.9	908.9	0.00	0.00	
5,600.0	10.26	222.32	5,517.7	-685.2	-623.9	926.7	0.00	0.00	
5,700.0	10.26	222.32	5,616.1	-698.4	-635.9	944.5	0.00	0.00	
5,800.0	10.26	222.32	5,714.6	-711.5	-647.9	962.3	0.00	0.00	
5,877.7	10.26	222.32	5,791.0	-721.8	-657.2	976.2	0.00	0.00	OHIO CREEK
5,900.0	10.26	222.32	5,813.0	-724.7	-659.9	980.1	0.00	0.00	
6,000.0	10.26	222.32	5,911.4	-737.9	-671.9	997.9	0.00	0.00	
6,100.0	10.26	222.32	6,009.8	-751.0	-683.9	1,015.7	0.00	0.00	
6,200.0	10.26	222.32	6,108.2	-764.2	-695.9	1,033.5	0.00	0.00	
6,300.0	10.26	222.32	6,206.6	-777.4	-707.9	1,051.4	0.00	0.00	
6,400.0	10.26	222.32	6,305.0	-790.5	-719.8	1,069.2	0.00	0.00	
6,416.3	10.26	222.32	6,321.0	-792.7	-721.8	1,072.1	0.00	0.00	WILLIAMS FORK
6,500.0	10.26	222.32	6,403.4	-803.7	-731.8	1,087.0	0.00	0.00	
6,600.0	10.26	222.32	6,501.8	-816.9	-743.8	1,104.8	0.00	0.00	
6,700.0	10.26	222.32	6,600.2	-830.0	-755.8	1,122.6	0.00	0.00	
6,800.0	10.26	222.32	6,698.6	-843.2	-767.8	1,140.4	0.00	0.00	
6,900.0	10.26	222.32	6,797.0	-856.3	-779.8	1,158.2	0.00	0.00	
7,000.0	10.26	222.32	6,895.4	-869.5	-791.8	1,176.0	0.00	0.00	
7,015.8	10.26	222.32	6,910.9	-871.6	-793.7	1,178.8	0.00	0.00	Start 3° Drop
7,100.0	7.73	222.32	6,994.1	-881.3	-802.5	1,192.0	3.00	-3.00	
7,200.0	4.73	222.32	7,093.5	-889.4	-809.8	1,202.8	3.00	-3.00	
7,300.0	1.73	222.32	7,193.3	-893.5	-813.6	1,208.5	3.00	-3.00	
7,357.7	0.00	0.00	7,251.0	-894.2	-814.2	1,209.3	3.00	-3.00	EOD @ 0° INC - TOG
7,400.0	0.00	0.00	7,293.3	-894.2	-814.2	1,209.3	0.00	0.00	
7,500.0	0.00	0.00	7,393.3	-894.2	-814.2	1,209.3	0.00	0.00	
7,600.0	0.00	0.00	7,493.3	-894.2	-814.2	1,209.3	0.00	0.00	
7,700.0	0.00	0.00	7,593.3	-894.2	-814.2	1,209.3	0.00	0.00	
7,800.0	0.00	0.00	7,693.3	-894.2	-814.2	1,209.3	0.00	0.00	
7,900.0	0.00	0.00	7,793.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,000.0	0.00	0.00	7,893.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,100.0	0.00	0.00	7,993.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,200.0	0.00	0.00	8,093.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,282.7	0.00	0.00	8,176.0	-894.2	-814.2	1,209.3	0.00	0.00	CAMEO
8,300.0	0.00	0.00	8,193.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,400.0	0.00	0.00	8,293.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,500.0	0.00	0.00	8,393.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,600.0	0.00	0.00	8,493.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,697.7	0.00	0.00	8,591.0	-894.2	-814.2	1,209.3	0.00	0.00	ROLLINS
8,700.0	0.00	0.00	8,593.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,800.0	0.00	0.00	8,693.3	-894.2	-814.2	1,209.3	0.00	0.00	
8,847.7	0.00	0.00	8,741.0	-894.2	-814.2	1,209.3	0.00	0.00	TD @ 8,847.7' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PUCKETT 44D-2 BHL	0.00	0.00	8,741.0	-894.2	-814.2	606,440.60	1,243,093.26	39.467817	-108.181406
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 44D-2 TGT	0.00	0.00	7,251.0	-894.2	-814.2	606,440.60	1,243,093.26	39.467817	-108.181406
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,877.7	5,791.0	OHIO CREEK				
6,416.3	6,321.0	WILLIAMS FORK				
7,357.7	7,251.0	TOG				
8,282.7	8,176.0	CAMEO				
8,697.7	8,591.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
225.0	225.0	0.0	0.0	KOP @ 225'	
566.9	565.1	-22.6	-20.5	EOB @ 10.26° INC	
7,015.8	6,910.9	-871.6	-793.7	Start 3° Drop	
7,357.7	7,251.0	-894.2	-814.2	EOD @ 0° INC	
8,847.7	8,741.0	-894.2	-814.2	TD @ 8,847.7' MD	

# **Caerus Oil & Gas (NAD 27)**

**Garfield County, CO**

**S2-T7S-R97W (Puckett Pad P2)**

**PUCKETT 44D-2**

**DD**

**Plan #1**

## **Anticollision Report**

**01 October, 2014**



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 200.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	10/1/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	8,847.3	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S2-T7S-R97W (Puckett Pad P2)						
PUCKETT 11A-12 - DD - Plan #1	268.8	268.7	12.5	11.6	13.571	CC, ES
PUCKETT 11A-12 - DD - Plan #1	400.0	398.7	16.7	15.2	11.352	SF
PUCKETT 11B-12 - DD - Plan #1	200.0	200.0	19.3	18.7	30.939	CC, ES
PUCKETT 11B-12 - DD - Plan #1	400.0	397.5	25.1	23.5	16.647	SF
PUCKETT 13D-1 - DD - Plan #1	200.0	200.0	47.2	46.5	75.460	CC, ES
PUCKETT 13D-1 - DD - Plan #1	500.0	490.0	84.8	82.4	35.771	SF
PUCKETT 14A-1 - DD - Plan #1	200.0	200.0	48.2	47.5	77.090	CC, ES
PUCKETT 14A-1 - DD - Plan #1	500.0	497.8	68.4	66.1	29.931	SF
PUCKETT 14B-1 - DD - Plan #1	200.0	200.0	33.5	32.9	53.677	CC, ES
PUCKETT 14B-1 - DD - Plan #1	500.0	497.3	54.8	52.5	24.015	SF
PUCKETT 14C-1 - DD - Plan #1	200.0	200.0	18.2	17.6	29.174	CC, ES
PUCKETT 14C-1 - DD - Plan #1	400.0	399.4	26.2	24.6	15.743	SF
PUCKETT 14D-1 - DD - Plan #1	200.0	200.0	10.3	9.7	16.453	CC
PUCKETT 14D-1 - DD - Plan #1	300.0	300.0	10.6	9.5	9.956	ES, SF
PUCKETT 24A-1 - DD - Plan #1	200.0	200.0	41.4	40.8	66.289	CC, ES
PUCKETT 24A-1 - DD - Plan #1	500.0	494.5	68.0	65.7	29.470	SF
PUCKETT 24C-1 - DD - Plan #1	200.0	200.0	25.4	24.8	40.713	CC, ES
PUCKETT 24C-1 - DD - Plan #1	400.0	397.9	37.1	35.4	22.121	SF
PUCKETT 24D-1 - DD - Plan #1	200.0	200.0	12.5	11.8	19.956	CC, ES
PUCKETT 24D-1 - DD - Plan #1	300.0	299.3	15.9	14.8	14.637	SF
PUCKETT 43C-2 - DD - Plan #1	200.0	200.0	40.1	39.5	64.218	CC, ES
PUCKETT 43C-2 - DD - Plan #1	500.0	497.4	62.2	59.9	27.190	SF
PUCKETT 43D-2 - DD - Plan #1	200.0	200.0	31.8	31.2	50.970	CC, ES
PUCKETT 43D-2 - DD - Plan #1	500.0	499.4	50.5	48.2	22.318	SF
PUCKETT 44A-2 - DD - Plan #1	200.0	200.0	23.9	23.3	38.213	CC, ES
PUCKETT 44A-2 - DD - Plan #1	500.0	500.4	41.4	39.2	18.404	SF
PUCKETT 44B-2 - DD - Plan #1	200.0	200.0	15.3	14.7	24.497	CC, ES
PUCKETT 44B-2 - DD - Plan #1	500.0	501.2	28.7	26.5	12.916	SF
PUCKETT 44C-2 - DD - Plan #1	200.0	200.0	7.3	6.7	11.750	CC, ES
PUCKETT 44C-2 - DD - Plan #1	500.0	501.1	14.6	12.4	6.663	SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 11A-12 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	159.40	-12.0	4.5	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	159.40	-12.0	4.5	12.8	12.7	0.18	73.240		
200.0	200.0	200.0	200.0	0.3	0.3	159.40	-12.0	4.5	12.8	12.2	0.62	20.549		
268.8	268.8	268.7	268.6	0.5	0.5	-66.70	-12.1	4.6	12.5	11.6	0.92	13.571 CC, ES		
300.0	300.0	299.7	299.6	0.5	0.5	-68.77	-12.6	4.8	12.9	11.8	1.05	12.245		
400.0	399.8	398.7	398.6	0.7	0.7	-88.35	-17.4	6.7	16.7	15.2	1.47	11.352 SF		
500.0	499.1	497.1	496.4	1.0	1.0	-104.09	-26.9	10.4	26.8	24.8	2.02	13.258		
600.0	597.6	594.4	592.6	1.3	1.3	-111.93	-40.8	16.0	43.1	40.4	2.70	15.974		
700.0	696.0	691.3	687.4	1.7	1.6	-113.13	-59.0	23.2	63.2	59.8	3.41	18.538		
800.0	794.5	789.1	783.0	2.1	2.1	-113.15	-78.3	30.9	84.0	79.9	4.14	20.286		
900.0	892.9	886.9	878.6	2.5	2.5	-113.16	-97.7	38.5	104.8	99.9	4.90	21.411		
1,000.0	991.3	984.7	974.1	2.9	2.9	-113.17	-117.0	46.2	125.6	120.0	5.67	22.177		
1,100.0	1,089.7	1,082.5	1,069.7	3.3	3.4	-113.18	-136.4	53.9	146.5	140.0	6.44	22.726		
1,200.0	1,188.1	1,180.3	1,165.3	3.7	3.8	-113.18	-155.7	61.6	167.3	160.1	7.23	23.134		
1,300.0	1,286.5	1,278.1	1,260.8	4.1	4.3	-113.19	-175.1	69.3	188.1	180.1	8.02	23.453		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 11B-12 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis				Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis		Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	177.49	-19.3	0.8	19.3				
100.0	100.0	100.0	100.0	0.1	0.1	177.49	-19.3	0.8	19.3	19.2	0.18	110.268	
200.0	200.0	200.0	200.0	0.3	0.3	177.49	-19.3	0.8	19.3	18.7	0.62	30.939	CC, ES
300.0	300.0	299.0	298.9	0.5	0.5	-49.40	-21.8	1.6	20.9	19.8	1.06	19.693	
400.0	399.8	397.5	397.2	0.7	0.7	-63.70	-29.1	3.8	25.1	23.5	1.51	16.647	SF
500.0	499.1	495.3	494.1	1.0	1.0	-79.47	-41.1	7.6	34.1	32.0	2.01	16.910	
600.0	597.6	592.0	589.3	1.3	1.4	-90.94	-57.6	12.6	48.9	46.3	2.67	18.311	
700.0	696.0	687.5	682.2	1.7	1.8	-95.49	-78.5	19.1	68.9	65.5	3.42	20.147	
800.0	794.5	783.9	775.2	2.1	2.3	-96.54	-102.9	26.6	92.0	87.8	4.21	21.867	
900.0	892.9	881.1	868.8	2.5	2.8	-97.10	-127.7	34.2	115.4	110.4	5.01	23.044	
1,000.0	991.3	978.4	962.5	2.9	3.3	-97.47	-152.6	41.9	138.7	132.9	5.82	23.835	
1,100.0	1,089.7	1,075.6	1,056.2	3.3	3.8	-97.73	-177.5	49.5	162.0	155.4	6.64	24.394	
1,200.0	1,188.1	1,172.8	1,149.9	3.7	4.4	-97.93	-202.3	57.2	185.3	177.9	7.47	24.809	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 13D-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.99	40.4	24.3	47.2					
100.0	100.0	100.0	100.0	0.1	0.1	30.99	40.4	24.3	47.2	47.0	0.18	268.949		
200.0	200.0	200.0	200.0	0.3	0.3	30.99	40.4	24.3	47.2	46.5	0.62	75.460	CC, ES	
300.0	300.0	298.1	298.1	0.5	0.5	169.23	41.5	25.2	50.0	48.9	1.12	44.775		
400.0	399.8	394.5	394.2	0.7	0.8	171.08	46.2	29.1	62.7	61.0	1.72	36.417		
500.0	499.1	490.0	489.3	1.0	1.0	173.72	53.3	36.4	84.8	82.4	2.37	35.771	SF	
600.0	597.6	583.7	582.0	1.3	1.3	177.66	59.2	48.0	113.7	110.7	2.92	38.903		
700.0	696.0	678.3	675.5	1.7	1.6	-179.01	64.5	61.9	145.1	141.7	3.35	43.290		
800.0	794.5	773.0	769.0	2.1	1.9	-176.86	69.7	75.9	176.8	173.0	3.79	46.579		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14A-1 - DD - Plan #1													<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-ISWWSA MWD													<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	42.83	35.3	32.7	48.2					
100.0	100.0	100.0	100.0	0.1	0.1	42.83	35.3	32.7	48.2	48.0	0.18	274.758		
200.0	200.0	200.0	200.0	0.3	0.3	42.83	35.3	32.7	48.2	47.5	0.62	77.090 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-179.50	35.3	32.7	49.6	48.5	1.11	44.581		
400.0	399.8	399.8	399.8	0.7	0.8	-179.56	35.3	32.7	56.2	54.5	1.68	33.370		
500.0	499.1	497.8	497.8	1.0	1.0	-179.29	35.4	33.3	68.4	66.1	2.28	29.931 SF		
600.0	597.6	592.7	592.6	1.3	1.2	-177.30	35.8	38.1	88.7	85.9	2.83	31.363		
700.0	696.0	685.5	684.9	1.7	1.4	-174.61	36.5	47.2	114.0	110.8	3.26	34.944		
800.0	794.5	778.0	776.4	2.1	1.7	-171.84	37.6	60.5	143.0	139.3	3.74	38.252		
900.0	892.9	873.2	870.5	2.5	1.9	-169.76	38.8	75.0	173.0	168.8	4.22	41.027		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 usft
S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14B-1 - DD - Plan #1												<b>Offset Well Error:</b>	0.0 usft
Survey Program: 0-ISOWSA MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	48.51	22.2	25.1	33.5				
100.0	100.0	100.0	100.0	0.1	0.1	48.51	22.2	25.1	33.5	33.4	0.18	191.311	
200.0	200.0	200.0	200.0	0.3	0.3	48.51	22.2	25.1	33.5	32.9	0.62	53.677 CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-174.06	22.2	25.1	35.0	33.9	1.11	31.453	
400.0	399.8	399.8	399.8	0.7	0.8	-174.98	22.2	25.1	41.5	39.8	1.68	24.678	
500.0	499.1	497.3	497.3	1.0	1.0	-173.94	21.8	27.6	54.8	52.5	2.28	24.015 SF	
600.0	597.6	592.8	592.5	1.3	1.2	-170.84	20.7	34.7	76.2	73.3	2.84	26.857	
700.0	696.0	686.2	685.1	1.7	1.4	-167.31	18.8	46.3	102.2	98.9	3.29	31.067	
800.0	794.5	781.2	779.0	2.1	1.7	-164.21	16.4	61.0	130.7	126.9	3.78	34.555	
900.0	892.9	876.8	873.4	2.5	2.0	-162.19	14.0	75.9	159.5	155.2	4.29	37.153	
1,000.0	991.3	972.5	967.8	2.9	2.3	-160.78	11.6	90.8	188.5	183.6	4.82	39.081	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14C-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	63.92	8.0	16.4	18.2					
100.0	100.0	100.0	100.0	0.1	0.1	63.92	8.0	16.4	18.2	18.1	0.18	103.980		
200.0	200.0	200.0	200.0	0.3	0.3	63.92	8.0	16.4	18.2	17.6	0.62	29.174 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-159.97	8.0	16.4	19.6	18.5	1.11	17.709		
400.0	399.8	399.4	399.4	0.7	0.8	-163.73	7.8	17.0	26.2	24.6	1.67	15.743 SF		
500.0	499.1	497.3	497.1	1.0	1.0	-162.44	5.9	21.6	40.6	38.3	2.26	17.951		
600.0	597.6	593.1	592.5	1.3	1.2	-159.56	2.2	30.7	62.7	59.8	2.83	22.145		
700.0	696.0	687.5	685.8	1.7	1.5	-156.23	-3.1	43.9	89.1	85.8	3.33	26.775		
800.0	794.5	783.5	780.4	2.1	1.8	-153.81	-9.1	58.8	116.8	113.0	3.86	30.307		
900.0	892.9	879.5	875.0	2.5	2.1	-152.31	-15.0	73.6	144.7	140.3	4.41	32.811		
1,000.0	991.3	975.5	969.7	2.9	2.5	-151.30	-21.0	88.5	172.6	167.6	4.99	34.623		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14D-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis				Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	124.53	-5.8	8.5	10.3					
100.0	100.0	100.0	100.0	0.1	0.1	124.53	-5.8	8.5	10.3	10.1	0.18	58.640		
200.0	200.0	200.0	200.0	0.3	0.3	124.53	-5.8	8.5	10.3	9.7	0.62	16.453 CC		
217.7	217.7	217.7	217.7	0.3	0.4	-98.13	-5.8	8.5	10.3	9.6	0.70	14.650		
300.0	300.0	300.0	300.0	0.5	0.5	-105.70	-5.8	8.5	10.6	9.5	1.06	9.956 ES, SF		
400.0	399.8	399.1	399.0	0.7	0.7	-126.93	-7.3	10.5	16.0	14.5	1.56	10.255		
500.0	499.1	497.1	496.7	1.0	1.0	-136.92	-11.8	16.7	30.2	28.0	2.17	13.908		
600.0	597.6	593.1	592.0	1.3	1.2	-139.89	-19.1	26.6	52.0	49.2	2.79	18.655		
700.0	696.0	687.7	685.1	1.7	1.5	-139.22	-28.9	40.1	78.2	74.8	3.37	23.230		
800.0	794.5	783.9	779.4	2.1	1.9	-138.19	-39.9	55.2	105.7	101.7	3.97	26.614		
900.0	892.9	880.0	873.7	2.5	2.3	-137.59	-51.0	70.4	133.2	128.6	4.60	28.948		
1,000.0	991.3	976.1	968.0	2.9	2.7	-137.19	-62.0	85.5	160.6	155.4	5.25	30.606		
1,100.0	1,089.7	1,072.3	1,062.3	3.3	3.1	-136.91	-73.0	100.6	188.1	182.2	5.91	31.830		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24A-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	44.59	29.5	29.1	41.4					
100.0	100.0	100.0	100.0	0.1	0.1	44.59	29.5	29.1	41.4	41.2	0.18	236.260		
200.0	200.0	200.0	200.0	0.3	0.3	44.59	29.5	29.1	41.4	40.8	0.62	66.289 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-177.81	29.5	29.1	42.9	41.8	1.11	38.522		
400.0	399.8	398.1	398.0	0.7	0.7	-175.88	29.3	31.6	51.1	49.4	1.68	30.378		
500.0	499.1	494.5	494.1	1.0	1.0	-171.77	28.6	38.9	68.0	65.7	2.31	29.470 SF		
600.0	597.6	587.7	586.6	1.3	1.2	-168.01	27.9	50.6	93.7	90.8	2.89	32.384		
700.0	696.0	678.1	675.7	1.7	1.5	-165.00	27.5	66.3	124.7	121.3	3.37	36.946		
800.0	794.5	765.8	761.2	2.1	1.9	-162.47	27.4	85.4	159.8	155.9	3.90	41.007		
900.0	892.9	850.4	842.9	2.5	2.3	-160.35	27.6	107.6	199.0	194.5	4.45	44.719		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24C-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	53.03	15.3	20.3	25.4					
100.0	100.0	100.0	100.0	0.1	0.1	53.03	15.3	20.3	25.4	25.3	0.18	145.106		
200.0	200.0	200.0	200.0	0.3	0.3	53.03	15.3	20.3	25.4	24.8	0.62	40.713 CC, ES		
300.0	300.0	299.5	299.5	0.5	0.5	-168.80	15.1	21.0	27.3	26.2	1.11	24.659		
400.0	399.8	397.9	397.8	0.7	0.7	-164.58	13.9	25.9	37.1	35.4	1.68	22.121 SF		
500.0	499.1	494.4	493.8	1.0	1.0	-160.07	11.6	35.5	55.6	53.3	2.31	24.077		
600.0	597.6	588.1	586.3	1.3	1.3	-156.84	8.1	49.3	82.5	79.6	2.91	28.316		
700.0	696.0	679.1	675.5	1.7	1.6	-154.14	3.8	66.9	114.2	110.8	3.44	33.215		
800.0	794.5	767.4	761.1	2.1	2.0	-151.64	-1.4	88.0	149.7	145.7	4.02	37.284		
900.0	892.9	852.8	842.8	2.5	2.5	-149.42	-7.3	111.9	189.0	184.4	4.63	40.807		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24D-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	84.97	1.1	12.4	12.5					
100.0	100.0	100.0	100.0	0.1	0.1	84.97	1.1	12.4	12.5	12.3	0.18	71.126		
200.0	200.0	200.0	200.0	0.3	0.3	84.97	1.1	12.4	12.5	11.8	0.62	19.956 CC, ES		
300.0	300.0	299.3	299.2	0.5	0.5	-136.82	0.2	14.8	15.9	14.8	1.09	14.637 SF		
400.0	399.8	397.6	397.2	0.7	0.8	-138.99	-2.5	22.0	27.7	26.1	1.64	16.871		
500.0	499.1	493.8	492.7	1.0	1.0	-140.71	-6.9	33.5	47.9	45.6	2.27	21.074		
600.0	597.6	587.2	584.5	1.3	1.4	-141.69	-12.7	49.0	76.0	73.1	2.91	26.138		
700.0	696.0	677.8	672.9	1.7	1.8	-141.40	-19.9	68.1	109.0	105.5	3.49	31.223		
800.0	794.5	765.8	757.5	2.1	2.2	-140.35	-28.3	90.2	145.7	141.6	4.11	35.422		
900.0	892.9	850.7	838.2	2.5	2.7	-139.09	-37.7	115.1	186.2	181.4	4.77	39.027		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 43C-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.43	34.6	20.3	40.1					
100.0	100.0	100.0	100.0	0.1	0.1	30.43	34.6	20.3	40.1	40.0	0.18	228.878		
200.0	200.0	200.0	200.0	0.3	0.3	30.43	34.6	20.3	40.1	39.5	0.62	64.218 CC, ES		
300.0	300.0	299.9	299.9	0.5	0.5	168.30	34.7	20.2	41.6	40.5	1.11	37.454		
400.0	399.8	399.2	399.1	0.7	0.8	165.29	37.2	17.2	48.7	47.0	1.67	29.080		
500.0	499.1	497.4	496.9	1.0	1.0	159.79	42.9	10.4	62.2	59.9	2.29	27.190 SF		
600.0	597.6	594.0	592.5	1.3	1.3	154.34	51.6	-0.1	82.4	79.5	2.89	28.538		
700.0	696.0	691.2	688.4	1.7	1.6	150.38	61.7	-12.1	104.9	101.5	3.42	30.696		
800.0	794.5	788.4	784.4	2.1	1.9	147.83	71.7	-24.2	127.7	123.7	3.99	31.991		
900.0	892.9	885.7	880.3	2.5	2.3	146.05	81.8	-36.3	150.7	146.1	4.60	32.793		
1,000.0	991.3	982.9	976.3	2.9	2.6	144.74	91.9	-48.3	173.8	168.6	5.22	33.313		
1,100.0	1,089.7	1,080.1	1,072.3	3.3	3.0	143.74	101.9	-60.4	196.9	191.1	5.85	33.667		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 43D-2 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.94	27.3	16.4	31.8					
100.0	100.0	100.0	100.0	0.1	0.1	30.94	27.3	16.4	31.8	31.7	0.18	181.663		
200.0	200.0	200.0	200.0	0.3	0.3	30.94	27.3	16.4	31.8	31.2	0.62	50.970 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	169.11	27.3	16.4	33.3	32.2	1.11	29.948		
400.0	399.8	399.9	399.9	0.7	0.8	168.75	27.9	15.0	39.5	37.9	1.67	23.648		
500.0	499.1	499.4	499.2	1.0	1.0	163.91	30.6	9.1	50.5	48.2	2.26	22.318 SF		
600.0	597.6	597.9	597.0	1.3	1.2	157.76	35.4	-1.3	66.5	63.7	2.83	23.509		
700.0	696.0	696.1	694.3	1.7	1.5	153.08	41.0	-13.5	84.3	81.0	3.34	25.269		
800.0	794.5	794.3	791.6	2.1	1.8	150.04	46.6	-25.6	102.5	98.6	3.90	26.295		
900.0	892.9	892.6	888.9	2.5	2.2	147.92	52.2	-37.8	120.8	116.3	4.49	26.914		
1,000.0	991.3	990.8	986.2	2.9	2.5	146.36	57.8	-50.0	139.3	134.2	5.10	27.303		
1,100.0	1,089.7	1,089.0	1,083.5	3.3	2.8	145.16	63.3	-62.1	157.8	152.1	5.73	27.558		
1,200.0	1,188.1	1,187.2	1,180.8	3.7	3.1	144.22	68.9	-74.3	176.4	170.0	6.36	27.728		
1,300.0	1,286.5	1,285.4	1,278.1	4.1	3.4	143.45	74.5	-86.5	195.0	188.0	7.00	27.850		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44A-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	31.35	20.4	12.4	23.9					
100.0	100.0	100.0	100.0	0.1	0.1	31.35	20.4	12.4	23.9	23.7	0.18	136.197		
200.0	200.0	200.0	200.0	0.3	0.3	31.35	20.4	12.4	23.9	23.3	0.62	38.213 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	169.65	20.4	12.4	25.3	24.2	1.11	22.776		
400.0	399.8	400.0	400.0	0.7	0.8	171.49	20.4	12.3	31.7	30.0	1.68	18.918		
500.0	499.1	500.4	500.3	1.0	1.0	169.09	20.7	8.3	41.4	39.2	2.25	18.404 SF		
600.0	597.6	600.5	600.0	1.3	1.2	163.66	21.4	-0.8	53.9	51.1	2.78	19.358		
700.0	696.0	699.7	698.4	1.7	1.5	158.05	22.3	-13.1	66.7	63.5	3.25	20.526		
800.0	794.5	798.7	796.6	2.1	1.8	154.26	23.3	-25.4	80.0	76.2	3.78	21.144		
900.0	892.9	897.7	894.8	2.5	2.1	151.55	24.2	-37.6	93.5	89.2	4.35	21.472		
1,000.0	991.3	996.7	993.1	2.9	2.4	149.52	25.2	-49.9	107.2	102.2	4.95	21.643		
1,100.0	1,089.7	1,095.7	1,091.3	3.3	2.7	147.96	26.1	-62.2	120.9	115.4	5.57	21.728		
1,200.0	1,188.1	1,194.7	1,189.5	3.7	3.0	146.71	27.1	-74.4	134.8	128.6	6.19	21.766		
1,300.0	1,286.5	1,293.7	1,287.8	4.1	3.3	145.70	28.0	-86.7	148.7	141.9	6.83	21.779		
1,400.0	1,384.9	1,392.7	1,386.0	4.5	3.6	144.86	28.9	-99.0	162.6	155.1	7.47	21.776		
1,500.0	1,483.3	1,491.7	1,484.2	4.9	3.9	144.15	29.9	-111.3	176.6	168.5	8.11	21.766		
1,600.0	1,581.7	1,590.7	1,582.5	5.3	4.2	143.55	30.8	-123.5	190.6	181.8	8.76	21.752		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44B-2 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	31.09	13.1	7.9	15.3					
100.0	100.0	100.0	100.0	0.1	0.1	31.09	13.1	7.9	15.3	15.1	0.18	87.308		
200.0	200.0	200.0	200.0	0.3	0.3	31.09	13.1	7.9	15.3	14.7	0.62	24.497	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	169.74	13.1	7.9	16.8	15.6	1.11	15.067		
400.0	399.8	400.4	400.4	0.7	0.8	170.23	12.7	6.5	22.1	20.4	1.66	13.283		
500.0	499.1	501.2	500.9	1.0	1.0	165.65	10.7	0.1	28.7	26.5	2.22	12.916	SF	
600.0	597.6	601.6	600.6	1.3	1.2	159.30	7.3	-10.9	36.9	34.2	2.75	13.406		
700.0	696.0	701.1	699.4	1.7	1.5	154.70	3.5	-23.1	45.7	42.5	3.24	14.133		
800.0	794.5	800.7	798.1	2.1	1.8	151.59	-0.2	-35.3	54.8	51.0	3.78	14.504		
900.0	892.9	900.2	896.8	2.5	2.1	149.37	-4.0	-47.5	63.9	59.5	4.35	14.684		
1,000.0	991.3	999.8	995.6	2.9	2.4	147.70	-7.8	-59.7	73.1	68.1	4.95	14.765		
1,100.0	1,089.7	1,099.3	1,094.3	3.3	2.8	146.41	-11.5	-71.8	82.3	76.8	5.57	14.794		
1,200.0	1,188.1	1,198.9	1,193.0	3.7	3.1	145.38	-15.3	-84.0	91.6	85.4	6.19	14.796		
1,300.0	1,286.5	1,298.4	1,291.8	4.1	3.4	144.53	-19.1	-96.2	100.9	94.1	6.83	14.784		
1,400.0	1,384.9	1,398.0	1,390.5	4.5	3.7	143.84	-22.8	-108.4	110.2	102.8	7.47	14.766		
1,500.0	1,483.3	1,497.6	1,489.3	4.9	4.1	143.24	-26.6	-120.6	119.6	111.5	8.11	14.744		
1,600.0	1,581.7	1,597.1	1,588.0	5.3	4.4	142.74	-30.3	-132.7	128.9	120.2	8.76	14.721		
1,700.0	1,680.1	1,696.7	1,686.7	5.7	4.7	142.30	-34.1	-144.9	138.3	128.9	9.41	14.698		
1,800.0	1,778.5	1,796.2	1,785.5	6.1	5.0	141.92	-37.9	-157.1	147.6	137.6	10.06	14.676		
1,900.0	1,876.9	1,895.8	1,884.2	6.5	5.4	141.59	-41.6	-169.3	157.0	146.3	10.71	14.655		
2,000.0	1,975.3	1,995.3	1,982.9	6.9	5.7	141.29	-45.4	-181.4	166.4	155.0	11.37	14.635		
2,100.0	2,073.7	2,094.9	2,081.7	7.4	6.0	141.02	-49.2	-193.6	175.8	163.7	12.02	14.617		
2,200.0	2,172.1	2,194.5	2,180.4	7.8	6.4	140.78	-52.9	-205.8	185.1	172.5	12.68	14.600		
2,300.0	2,270.5	2,294.0	2,279.2	8.2	6.7	140.57	-56.7	-218.0	194.5	181.2	13.34	14.584		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44C-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	32.57	6.2	4.0	7.3					
100.0	100.0	100.0	100.0	0.1	0.1	32.57	6.2	4.0	7.3	7.2	0.18	41.878		
200.0	200.0	200.0	200.0	0.3	0.3	32.57	6.2	4.0	7.3	6.7	0.62	11.750 CC, ES		
300.0	300.0	300.1	300.1	0.5	0.5	171.48	6.1	3.8	8.6	7.5	1.11	7.819		
400.0	399.8	400.5	400.4	0.7	0.7	169.19	3.8	0.6	11.4	9.8	1.63	7.010		
500.0	499.1	501.1	500.6	1.0	1.0	163.45	-1.5	-7.0	14.6	12.4	2.20	6.663 SF		
600.0	597.6	601.4	599.9	1.3	1.3	157.09	-9.5	-18.4	18.6	15.8	2.73	6.799		
700.0	696.0	701.3	698.7	1.7	1.6	152.98	-18.0	-30.5	23.0	19.8	3.22	7.153		
800.0	794.5	801.2	797.5	2.1	1.9	150.22	-26.5	-42.6	27.6	23.8	3.77	7.326		
900.0	892.9	901.1	896.3	2.5	2.3	148.24	-34.9	-54.7	32.2	27.8	4.35	7.406		
1,000.0	991.3	1,001.0	995.1	2.9	2.6	146.76	-43.4	-66.8	36.8	31.9	4.95	7.439		
1,100.0	1,089.7	1,100.8	1,093.8	3.3	3.0	145.61	-51.9	-78.9	41.4	35.9	5.56	7.447		
1,200.0	1,188.1	1,200.7	1,192.6	3.7	3.3	144.69	-60.4	-91.0	46.1	39.9	6.19	7.442		
1,300.0	1,286.5	1,300.6	1,291.4	4.1	3.7	143.94	-68.9	-103.1	50.8	43.9	6.83	7.432		
1,400.0	1,384.9	1,400.5	1,390.2	4.5	4.1	143.32	-77.3	-115.2	55.4	48.0	7.47	7.419		
1,500.0	1,483.3	1,500.4	1,489.0	4.9	4.4	142.79	-85.8	-127.2	60.1	52.0	8.12	7.404		
1,600.0	1,581.7	1,600.3	1,587.8	5.3	4.8	142.34	-94.3	-139.3	64.8	56.0	8.77	7.390		
1,700.0	1,680.1	1,700.2	1,686.6	5.7	5.1	141.95	-102.8	-151.4	69.5	60.0	9.42	7.375		
1,800.0	1,778.5	1,800.1	1,785.4	6.1	5.5	141.61	-111.2	-163.5	74.1	64.1	10.07	7.362		
1,900.0	1,876.9	1,900.0	1,884.2	6.5	5.8	141.31	-119.7	-175.6	78.8	68.1	10.73	7.349		
2,000.0	1,975.3	1,999.8	1,983.0	6.9	6.2	141.04	-128.2	-187.7	83.5	72.1	11.38	7.337		
2,100.0	2,073.7	2,099.7	2,081.8	7.4	6.6	140.80	-136.7	-199.8	88.2	76.2	12.04	7.326		
2,200.0	2,172.1	2,199.6	2,180.6	7.8	6.9	140.59	-145.2	-211.9	92.9	80.2	12.70	7.315		
2,300.0	2,270.5	2,299.5	2,279.3	8.2	7.3	140.39	-153.6	-224.0	97.6	84.2	13.36	7.306		
2,400.0	2,368.9	2,399.4	2,378.1	8.6	7.7	140.22	-162.1	-236.1	102.3	88.3	14.02	7.297		
2,500.0	2,467.3	2,499.3	2,476.9	9.0	8.0	140.06	-170.6	-248.1	107.0	92.3	14.68	7.288		
2,600.0	2,565.7	2,599.2	2,575.7	9.4	8.4	139.91	-179.1	-260.2	111.7	96.3	15.34	7.280		
2,700.0	2,664.1	2,699.1	2,674.5	9.8	8.7	139.78	-187.6	-272.3	116.4	100.4	16.00	7.273		
2,800.0	2,762.5	2,799.0	2,773.3	10.2	9.1	139.65	-196.0	-284.4	121.1	104.4	16.66	7.266		
2,900.0	2,860.9	2,898.9	2,872.1	10.6	9.5	139.54	-204.5	-296.5	125.8	108.5	17.33	7.260		
3,000.0	2,959.3	2,998.7	2,970.9	11.0	9.8	139.43	-213.0	-308.6	130.5	112.5	17.99	7.254		
3,100.0	3,057.7	3,098.6	3,069.7	11.4	10.2	139.33	-221.5	-320.7	135.2	116.5	18.65	7.248		
3,200.0	3,156.1	3,198.5	3,168.5	11.8	10.5	139.24	-229.9	-332.8	139.9	120.6	19.31	7.243		
3,300.0	3,254.5	3,298.4	3,267.3	12.3	10.9	139.15	-238.4	-344.9	144.6	124.6	19.98	7.238		
3,400.0	3,352.9	3,398.3	3,366.1	12.7	11.3	139.07	-246.9	-356.9	149.3	128.6	20.64	7.233		
3,500.0	3,451.3	3,498.2	3,464.8	13.1	11.6	138.99	-255.4	-369.0	154.0	132.7	21.30	7.229		
3,600.0	3,549.7	3,598.1	3,563.6	13.5	12.0	138.92	-263.9	-381.1	158.7	136.7	21.96	7.225		
3,700.0	3,648.1	3,698.0	3,662.4	13.9	12.4	138.85	-272.3	-393.2	163.4	140.8	22.63	7.221		
3,800.0	3,746.5	3,797.9	3,761.2	14.3	12.7	138.79	-280.8	-405.3	168.1	144.8	23.29	7.217		
3,900.0	3,844.9	3,897.7	3,860.0	14.7	13.1	138.73	-289.3	-417.4	172.8	148.8	23.95	7.214		
4,000.0	3,943.3	3,997.6	3,958.8	15.1	13.4	138.67	-297.8	-429.5	177.5	152.9	24.61	7.211		
4,100.0	4,041.7	4,097.5	4,057.6	15.5	13.8	138.62	-306.2	-441.6	182.2	156.9	25.28	7.208		
4,200.0	4,140.1	4,197.4	4,156.4	15.9	14.2	138.56	-314.7	-453.7	186.9	160.9	25.94	7.205		
4,300.0	4,238.5	4,297.3	4,255.2	16.3	14.5	138.52	-323.2	-465.8	191.6	165.0	26.60	7.202		
4,400.0	4,336.9	4,397.2	4,354.0	16.8	14.9	138.47	-331.7	-477.8	196.3	169.0	27.27	7.199		



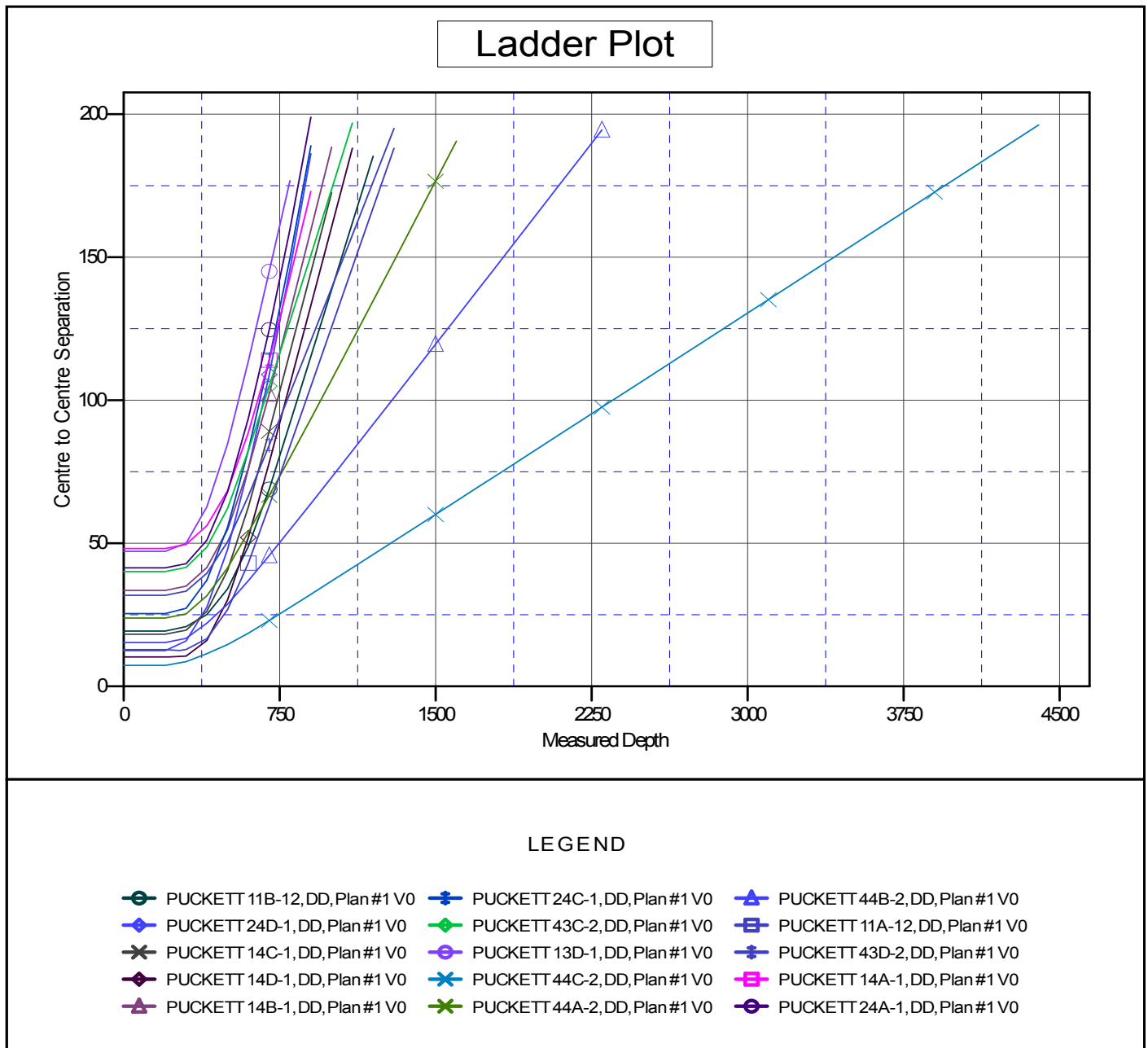
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 44D-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8446.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad P2)	<b>MD Reference:</b>	KB=22' @ 8446.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 44D-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB=22' @ 8446.0usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 44D-2  
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502  
Grid Convergence at Surface is: -1.69°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation