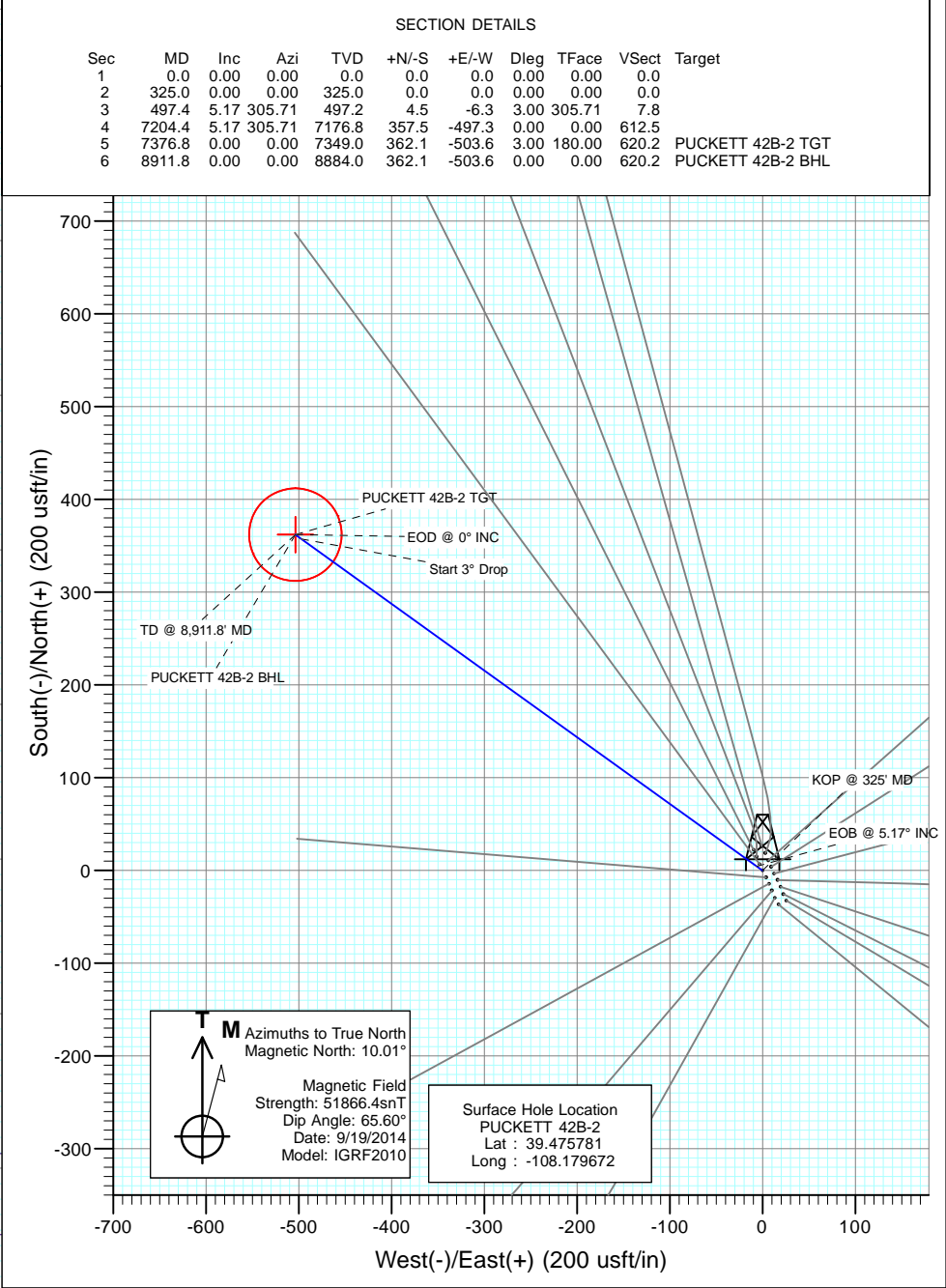
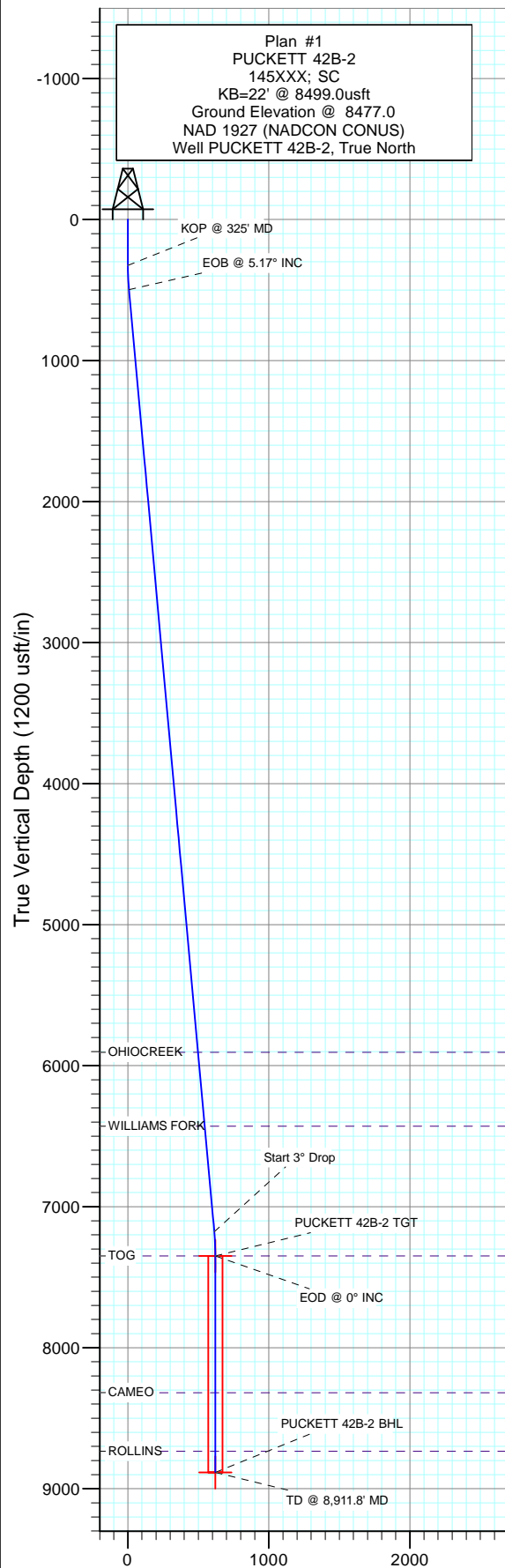




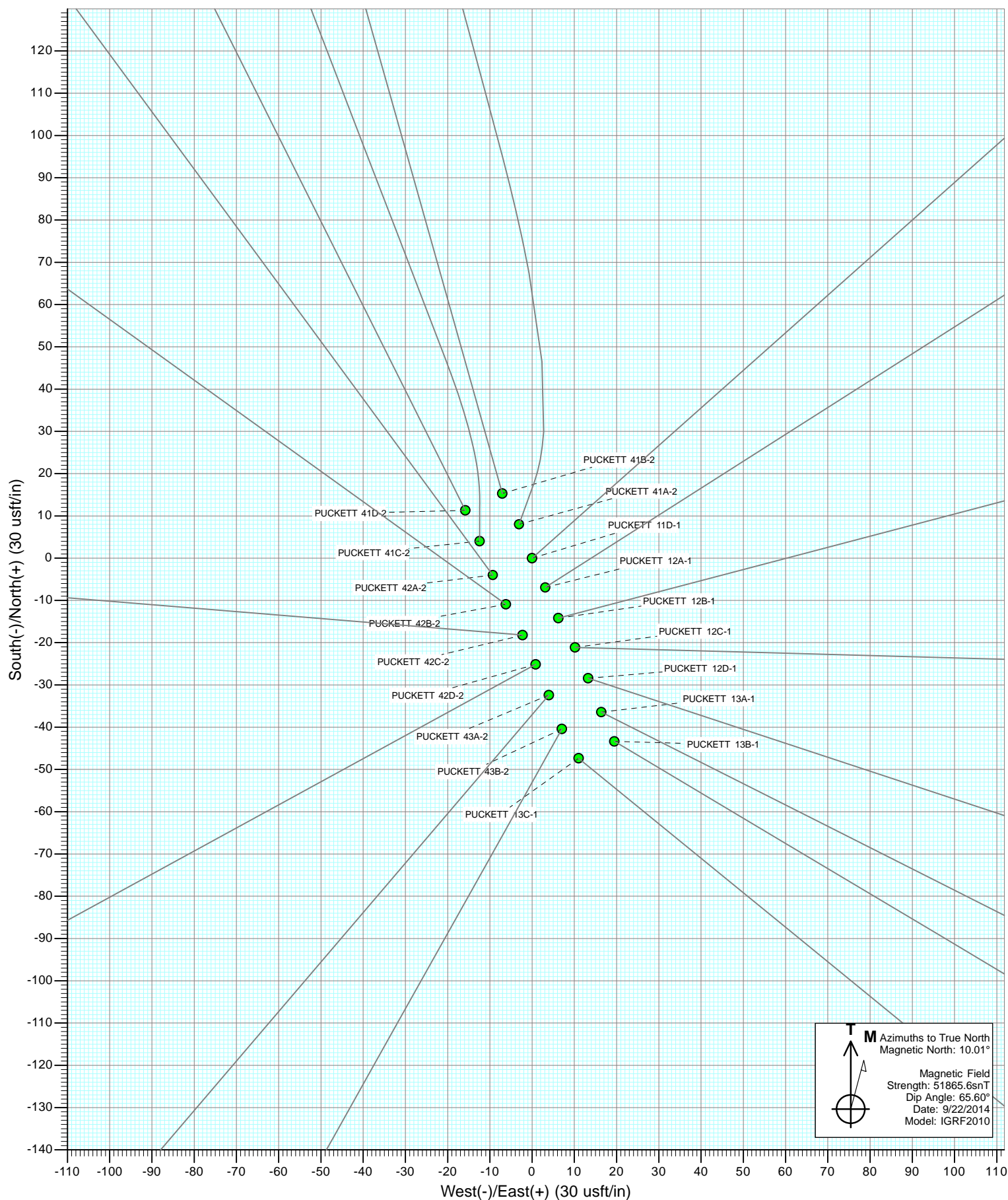
Project: Garfield County, CO  
 Site: S2-T7S-R97W (Puckett Pad)  
 Well: PUCKETT 42B-2  
 Wellbore: DD  
 Design: Plan #1

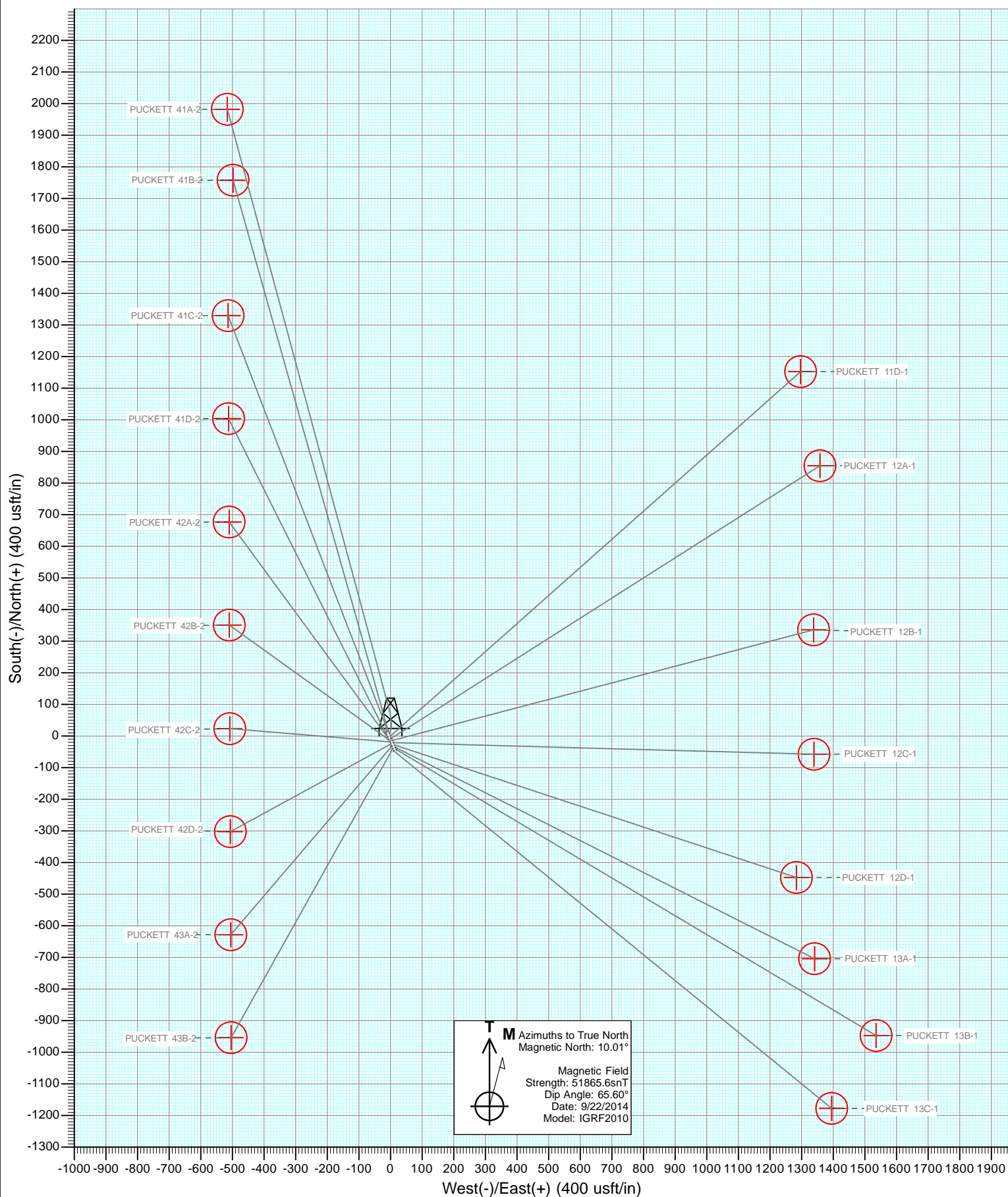


DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 42B-2 TGT	362.1	-503.6	609702.38	1243175.44	39.476775	-108.181456
PUCKETT 42B-2 BHL	362.1	-503.6	609702.38	1243175.44	39.476775	-108.181456

Vertical Section at 305.71° (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 42B-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-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)			
Site Position:		Northing:	609,295.75 usft	Latitude:	39.475700
From:	Lat/Long	Easting:	1,243,680.53 usft	Longitude:	-108.179625
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.69 °

Well	PUCKETT 42B-2					
Well Position	+N/-S	0.0 usft	Northing:	609,325.62 usft	Latitude:	39.475781
	+E/-W	0.0 usft	Easting:	1,243,668.14 usft	Longitude:	-108.179672
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,477.0 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	9/19/2014	10.01	65.60	51,866

<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	305.71	

<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	
325.0	0.00	0.00	325.0	0.0	0.0	0.00	0.00	0.00	0.00	
497.4	5.17	305.71	497.2	4.5	-6.3	3.00	3.00	0.00	305.71	
7,204.4	5.17	305.71	7,176.8	357.5	-497.3	0.00	0.00	0.00	0.00	
7,376.8	0.00	0.00	7,349.0	362.1	-503.6	3.00	-3.00	0.00	180.00	PUCKETT 42B-2 TG1
8,911.8	0.00	0.00	8,884.0	362.1	-503.6	0.00	0.00	0.00	0.00	PUCKETT 42B-2 BHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
325.0	0.00	0.00	325.0	0.0	0.0	0.0	0.00	0.00	KOP @ 325' MD
400.0	2.25	305.71	400.0	0.9	-1.2	1.5	3.00	3.00	
497.4	5.17	305.71	497.2	4.5	-6.3	7.8	3.00	3.00	EOB @ 5.17° INC
500.0	5.17	305.71	499.8	4.7	-6.5	8.0	0.00	0.00	
600.0	5.17	305.71	599.3	9.9	-13.8	17.0	0.00	0.00	
700.0	5.17	305.71	698.9	15.2	-21.1	26.0	0.00	0.00	
800.0	5.17	305.71	798.5	20.5	-28.5	35.1	0.00	0.00	
900.0	5.17	305.71	898.1	25.7	-35.8	44.1	0.00	0.00	
1,000.0	5.17	305.71	997.7	31.0	-43.1	53.1	0.00	0.00	
1,100.0	5.17	305.71	1,097.3	36.3	-50.4	62.1	0.00	0.00	
1,200.0	5.17	305.71	1,196.9	41.5	-57.7	71.1	0.00	0.00	
1,300.0	5.17	305.71	1,296.5	46.8	-65.1	80.1	0.00	0.00	
1,400.0	5.17	305.71	1,396.1	52.0	-72.4	89.2	0.00	0.00	
1,500.0	5.17	305.71	1,495.7	57.3	-79.7	98.2	0.00	0.00	
1,600.0	5.17	305.71	1,595.3	62.6	-87.0	107.2	0.00	0.00	
1,700.0	5.17	305.71	1,694.9	67.8	-94.3	116.2	0.00	0.00	
1,800.0	5.17	305.71	1,794.5	73.1	-101.7	125.2	0.00	0.00	
1,900.0	5.17	305.71	1,894.1	78.4	-109.0	134.2	0.00	0.00	
2,000.0	5.17	305.71	1,993.6	83.6	-116.3	143.2	0.00	0.00	
2,100.0	5.17	305.71	2,093.2	88.9	-123.6	152.3	0.00	0.00	
2,200.0	5.17	305.71	2,192.8	94.1	-130.9	161.3	0.00	0.00	
2,300.0	5.17	305.71	2,292.4	99.4	-138.3	170.3	0.00	0.00	
2,400.0	5.17	305.71	2,392.0	104.7	-145.6	179.3	0.00	0.00	
2,500.0	5.17	305.71	2,491.6	109.9	-152.9	188.3	0.00	0.00	
2,600.0	5.17	305.71	2,591.2	115.2	-160.2	197.3	0.00	0.00	
2,700.0	5.17	305.71	2,690.8	120.5	-167.5	206.4	0.00	0.00	
2,800.0	5.17	305.71	2,790.4	125.7	-174.9	215.4	0.00	0.00	
2,900.0	5.17	305.71	2,890.0	131.0	-182.2	224.4	0.00	0.00	
3,000.0	5.17	305.71	2,989.6	136.2	-189.5	233.4	0.00	0.00	
3,100.0	5.17	305.71	3,089.2	141.5	-196.8	242.4	0.00	0.00	
3,200.0	5.17	305.71	3,188.8	146.8	-204.2	251.4	0.00	0.00	
3,300.0	5.17	305.71	3,288.4	152.0	-211.5	260.5	0.00	0.00	
3,400.0	5.17	305.71	3,387.9	157.3	-218.8	269.5	0.00	0.00	
3,500.0	5.17	305.71	3,487.5	162.6	-226.1	278.5	0.00	0.00	
3,600.0	5.17	305.71	3,587.1	167.8	-233.4	287.5	0.00	0.00	
3,700.0	5.17	305.71	3,686.7	173.1	-240.8	296.5	0.00	0.00	
3,800.0	5.17	305.71	3,786.3	178.4	-248.1	305.5	0.00	0.00	
3,900.0	5.17	305.71	3,885.9	183.6	-255.4	314.5	0.00	0.00	
4,000.0	5.17	305.71	3,985.5	188.9	-262.7	323.6	0.00	0.00	
4,100.0	5.17	305.71	4,085.1	194.1	-270.0	332.6	0.00	0.00	
4,200.0	5.17	305.71	4,184.7	199.4	-277.4	341.6	0.00	0.00	
4,300.0	5.17	305.71	4,284.3	204.7	-284.7	350.6	0.00	0.00	
4,400.0	5.17	305.71	4,383.9	209.9	-292.0	359.6	0.00	0.00	
4,500.0	5.17	305.71	4,483.5	215.2	-299.3	368.6	0.00	0.00	
4,600.0	5.17	305.71	4,583.1	220.5	-306.6	377.7	0.00	0.00	
4,700.0	5.17	305.71	4,682.7	225.7	-314.0	386.7	0.00	0.00	
4,800.0	5.17	305.71	4,782.2	231.0	-321.3	395.7	0.00	0.00	
4,900.0	5.17	305.71	4,881.8	236.2	-328.6	404.7	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 42B-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-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	5.17	305.71	4,981.4	241.5	-335.9	413.7	0.00	0.00	
5,100.0	5.17	305.71	5,081.0	246.8	-343.2	422.7	0.00	0.00	
5,200.0	5.17	305.71	5,180.6	252.0	-350.6	431.8	0.00	0.00	
5,300.0	5.17	305.71	5,280.2	257.3	-357.9	440.8	0.00	0.00	
5,400.0	5.17	305.71	5,379.8	262.6	-365.2	449.8	0.00	0.00	
5,500.0	5.17	305.71	5,479.4	267.8	-372.5	458.8	0.00	0.00	
5,600.0	5.17	305.71	5,579.0	273.1	-379.8	467.8	0.00	0.00	
5,700.0	5.17	305.71	5,678.6	278.3	-387.2	476.8	0.00	0.00	
5,800.0	5.17	305.71	5,778.2	283.6	-394.5	485.8	0.00	0.00	
5,900.0	5.17	305.71	5,877.8	288.9	-401.8	494.9	0.00	0.00	
5,926.3	5.17	305.71	5,904.0	290.3	-403.7	497.2	0.00	0.00	OHIOCREEK
6,000.0	5.17	305.71	5,977.4	294.1	-409.1	503.9	0.00	0.00	
6,100.0	5.17	305.71	6,076.9	299.4	-416.4	512.9	0.00	0.00	
6,200.0	5.17	305.71	6,176.5	304.7	-423.8	521.9	0.00	0.00	
6,300.0	5.17	305.71	6,276.1	309.9	-431.1	530.9	0.00	0.00	
6,400.0	5.17	305.71	6,375.7	315.2	-438.4	539.9	0.00	0.00	
6,453.5	5.17	305.71	6,429.0	318.0	-442.3	544.8	0.00	0.00	WILLIAMS FORK
6,500.0	5.17	305.71	6,475.3	320.4	-445.7	549.0	0.00	0.00	
6,600.0	5.17	305.71	6,574.9	325.7	-453.0	558.0	0.00	0.00	
6,700.0	5.17	305.71	6,674.5	331.0	-460.4	567.0	0.00	0.00	
6,800.0	5.17	305.71	6,774.1	336.2	-467.7	576.0	0.00	0.00	
6,900.0	5.17	305.71	6,873.7	341.5	-475.0	585.0	0.00	0.00	
7,000.0	5.17	305.71	6,973.3	346.8	-482.3	594.0	0.00	0.00	
7,100.0	5.17	305.71	7,072.9	352.0	-489.6	603.1	0.00	0.00	
7,204.4	5.17	305.71	7,176.8	357.5	-497.3	612.5	0.00	0.00	Start 3° Drop
7,300.0	2.30	305.71	7,272.2	361.2	-502.3	618.7	3.00	-3.00	
7,376.8	0.00	0.00	7,349.0	362.1	-503.6	620.2	3.00	-3.00	EOD @ 0° INC - TOG
7,400.0	0.00	0.00	7,372.2	362.1	-503.6	620.2	0.00	0.00	
7,500.0	0.00	0.00	7,472.2	362.1	-503.6	620.2	0.00	0.00	
7,600.0	0.00	0.00	7,572.2	362.1	-503.6	620.2	0.00	0.00	
7,700.0	0.00	0.00	7,672.2	362.1	-503.6	620.2	0.00	0.00	
7,800.0	0.00	0.00	7,772.2	362.1	-503.6	620.2	0.00	0.00	
7,900.0	0.00	0.00	7,872.2	362.1	-503.6	620.2	0.00	0.00	
8,000.0	0.00	0.00	7,972.2	362.1	-503.6	620.2	0.00	0.00	
8,100.0	0.00	0.00	8,072.2	362.1	-503.6	620.2	0.00	0.00	
8,200.0	0.00	0.00	8,172.2	362.1	-503.6	620.2	0.00	0.00	
8,300.0	0.00	0.00	8,272.2	362.1	-503.6	620.2	0.00	0.00	
8,346.8	0.00	0.00	8,319.0	362.1	-503.6	620.2	0.00	0.00	CAMEO
8,400.0	0.00	0.00	8,372.2	362.1	-503.6	620.2	0.00	0.00	
8,500.0	0.00	0.00	8,472.2	362.1	-503.6	620.2	0.00	0.00	
8,600.0	0.00	0.00	8,572.2	362.1	-503.6	620.2	0.00	0.00	
8,700.0	0.00	0.00	8,672.2	362.1	-503.6	620.2	0.00	0.00	
8,761.8	0.00	0.00	8,734.0	362.1	-503.6	620.2	0.00	0.00	ROLLINS
8,800.0	0.00	0.00	8,772.2	362.1	-503.6	620.2	0.00	0.00	
8,900.0	0.00	0.00	8,872.2	362.1	-503.6	620.2	0.00	0.00	
8,911.8	0.00	0.00	8,884.0	362.1	-503.6	620.2	0.00	0.00	TD @ 8,911.8' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-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 42B-2 BHL	0.00	0.00	8,884.0	362.1	-503.6	609,702.38	1,243,175.44	39.476775	-108.181456
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 42B-2 TGT	0.00	0.00	7,349.0	362.1	-503.6	609,702.38	1,243,175.44	39.476775	-108.181456
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,926.3	5,904.0	OHIOCREEK				
6,453.5	6,429.0	WILLIAMS FORK				
7,376.8	7,349.0	TOG				
8,346.8	8,319.0	CAMEO				
8,761.8	8,734.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
325.0	325.0	0.0	0.0	KOP @ 325' MD	
497.4	497.2	4.5	-6.3	EOB @ 5.17° INC	
7,204.4	7,176.8	357.5	-497.3	Start 3° Drop	
7,376.8	7,349.0	362.1	-503.6	EOD @ 0° INC	
8,911.8	8,884.0	362.1	-503.6	TD @ 8,911.8' MD	

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

**Garfield County, CO**

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

**PUCKETT 42B-2**

**DD**

**Plan #1**

## **Anticollision Report**

**22 September, 2014**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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		

<b>Survey Tool Program</b>	<b>Date</b>	9/22/2014		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	8,911.8	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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

### Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
S2-T7S-R97W (Puckett Pad)						
PUCKETT 11D-1 - DD - Plan #1	200.0	200.0	12.6	11.9	20.114	CC, ES
PUCKETT 11D-1 - DD - Plan #1	300.0	299.3	15.1	14.0	14.006	SF
PUCKETT 12A-1 - DD - Plan #1	233.4	233.4	10.1	9.4	13.086	CC, ES
PUCKETT 12A-1 - DD - Plan #1	300.0	299.7	10.8	9.7	10.066	SF
PUCKETT 12B-1 - DD - Plan #1	300.0	300.0	12.8	11.8	11.957	CC, ES
PUCKETT 12B-1 - DD - Plan #1	400.0	399.3	16.5	14.9	10.628	SF
PUCKETT 12C-1 - DD - Plan #1	300.0	300.0	19.3	18.2	17.954	CC
PUCKETT 12C-1 - DD - Plan #1	300.0	300.0	19.3	18.2	17.933	ES
PUCKETT 12C-1 - DD - Plan #1	400.0	399.5	21.3	19.8	13.712	SF
PUCKETT 12D-1 - DD - Plan #1	300.0	300.0	26.2	25.1	24.361	CC, ES
PUCKETT 12D-1 - DD - Plan #1	400.0	398.6	30.0	28.5	19.347	SF
PUCKETT 13A-1 - DD - Plan #1	233.4	233.4	34.1	33.3	43.944	CC, ES
PUCKETT 13A-1 - DD - Plan #1	400.0	397.1	40.9	39.4	26.403	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	41.4	40.7	66.193	CC, ES
PUCKETT 13B-1 - DD - Plan #1	500.0	490.4	71.2	69.0	32.698	SF
PUCKETT 13C-1 - DD - Plan #1	155.6	155.6	40.3	39.9	94.778	CC
PUCKETT 13C-1 - DD - Plan #1	200.0	199.5	40.4	39.8	65.377	ES
PUCKETT 13C-1 - DD - Plan #1	500.0	489.5	73.1	70.9	33.419	SF
PUCKETT 41A-2 - DD - Plan #1	200.0	200.0	19.2	18.6	30.716	CC, ES
PUCKETT 41A-2 - DD - Plan #1	400.0	397.4	28.9	27.3	18.568	SF
PUCKETT 41B-2 - DD - Plan #1	144.5	144.5	26.2	25.9	69.935	CC, ES
PUCKETT 41B-2 - DD - Plan #1	500.0	493.0	50.2	48.1	23.966	SF
PUCKETT 41C-2 - DD - Plan #1	200.0	200.0	16.2	15.5	25.884	CC, ES
PUCKETT 41C-2 - DD - Plan #1	500.0	496.7	29.5	27.5	14.380	SF
PUCKETT 41D-2 - DD - Plan #1	155.6	155.6	24.2	23.8	56.939	CC
PUCKETT 41D-2 - DD - Plan #1	200.0	199.7	24.4	23.7	39.037	ES
PUCKETT 41D-2 - DD - Plan #1	2,200.0	2,187.3	195.5	184.3	17.557	SF
PUCKETT 42A-2 - DD - Plan #1	255.6	255.6	7.6	6.7	8.672	CC
PUCKETT 42A-2 - DD - Plan #1	300.0	299.9	7.7	6.7	7.213	ES
PUCKETT 42A-2 - DD - Plan #1	500.0	498.8	13.6	11.5	6.575	SF
PUCKETT 42C-2 - DD - Plan #1	300.0	300.0	8.3	7.2	7.714	CC, ES
PUCKETT 42C-2 - DD - Plan #1	400.0	400.1	9.5	8.0	6.155	SF
PUCKETT 42D-2 - DD - Plan #1	300.0	300.0	15.9	14.8	14.763	CC, ES
PUCKETT 42D-2 - DD - Plan #1	400.0	399.9	17.2	15.7	11.221	SF
PUCKETT 43A-2 - DD - Plan #1	255.7	255.7	23.8	22.9	27.166	CC
PUCKETT 43A-2 - DD - Plan #1	300.0	299.9	23.8	22.8	22.310	ES
PUCKETT 43A-2 - DD - Plan #1	400.0	399.2	26.9	25.4	17.721	SF
PUCKETT 43B-2 - DD - Plan #1	200.0	200.0	32.3	31.7	51.764	CC, ES
PUCKETT 43B-2 - DD - Plan #1	500.0	495.1	52.2	50.1	25.040	SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 11D-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	29.61	10.9	6.2	12.6					
100.0	100.0	100.0	100.0	0.1	0.1	29.61	10.9	6.2	12.6	12.4	0.18	71.690		
200.0	200.0	200.0	200.0	0.3	0.3	29.61	10.9	6.2	12.6	11.9	0.62	20.114 CC, ES		
300.0	300.0	299.3	299.2	0.5	0.5	32.78	12.6	8.1	15.1	14.0	1.07	14.006 SF		
400.0	400.0	398.0	397.6	0.8	0.8	95.81	17.7	13.9	22.7	21.2	1.56	14.623		
500.0	499.8	495.3	494.1	1.0	1.1	107.74	26.1	23.2	37.1	35.0	2.07	17.920		
600.0	599.3	590.6	587.9	1.2	1.4	114.39	37.4	36.0	58.0	55.4	2.59	22.388		
700.0	698.9	683.8	678.7	1.5	1.8	116.62	51.4	51.8	83.9	80.8	3.12	26.872		
800.0	798.5	779.8	771.6	1.8	2.2	117.52	67.3	69.7	112.1	108.4	3.65	30.703		
900.0	898.1	875.7	864.5	2.0	2.7	118.06	83.3	87.6	140.2	136.1	4.17	33.618		
1,000.0	997.7	971.7	957.4	2.3	3.2	118.42	99.2	105.5	168.4	163.7	4.70	35.807		
1,100.0	1,097.3	1,067.6	1,050.3	2.6	3.7	118.67	115.1	123.4	196.6	191.4	5.24	37.497		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 12A-1 - 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	66.73	4.0	9.3	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	66.73	4.0	9.3	10.1	10.0	0.18	57.841		
200.0	200.0	200.0	200.0	0.3	0.3	66.73	4.0	9.3	10.1	9.5	0.62	16.229		
233.4	233.4	233.4	233.4	0.4	0.4	66.73	4.0	9.3	10.1	9.4	0.77	13.086	CC, ES	
300.0	300.0	299.7	299.7	0.5	0.5	66.18	4.4	9.9	10.8	9.7	1.07	10.066	SF	
400.0	400.0	398.9	398.7	0.8	0.8	122.01	7.1	14.2	16.7	15.1	1.55	10.793		
500.0	499.8	496.7	496.0	1.0	1.0	128.61	12.5	22.7	30.5	28.4	2.08	14.653		
600.0	599.3	592.7	590.8	1.2	1.3	131.39	20.5	35.2	50.8	48.3	2.58	19.712		
700.0	698.9	686.6	682.8	1.5	1.7	131.26	30.7	51.2	75.8	72.7	3.09	24.536		
800.0	798.5	782.2	775.8	1.8	2.1	130.61	42.6	70.0	103.5	99.9	3.60	28.737		
900.0	898.1	878.3	869.2	2.0	2.5	130.23	54.6	88.9	131.2	127.1	4.11	31.931		
1,000.0	997.7	974.3	962.6	2.3	3.0	129.98	66.6	107.8	158.9	154.3	4.62	34.373		
1,100.0	1,097.3	1,070.4	1,056.1	2.6	3.4	129.81	78.6	126.7	186.7	181.6	5.15	36.280		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 12B-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	104.78	-3.3	12.4	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	104.78	-3.3	12.4	12.8	12.7	0.18	73.273		
200.0	200.0	200.0	200.0	0.3	0.3	104.78	-3.3	12.4	12.8	12.2	0.62	20.559		
300.0	300.0	300.0	300.0	0.5	0.5	104.78	-3.3	12.4	12.8	11.8	1.07	11.957 CC, ES		
400.0	400.0	399.3	399.2	0.8	0.8	156.42	-2.6	14.9	16.5	14.9	1.55	10.628 SF		
500.0	499.8	497.4	497.0	1.0	1.0	154.54	-0.7	22.3	29.4	27.3	2.11	13.906		
600.0	599.3	593.6	592.4	1.2	1.2	152.72	2.4	34.2	49.1	46.5	2.57	19.068		
700.0	698.9	687.8	685.2	1.5	1.6	150.48	6.7	50.4	73.3	70.3	3.06	23.980		
800.0	798.5	784.2	779.6	1.8	1.9	148.84	11.6	69.1	99.8	96.3	3.54	28.209		
900.0	898.1	880.6	874.1	2.0	2.3	147.89	16.6	87.9	126.3	122.3	4.01	31.462		
1,000.0	997.7	977.1	968.5	2.3	2.7	147.27	21.5	106.6	152.9	148.4	4.50	33.957		
1,100.0	1,097.3	1,073.5	1,062.9	2.6	3.1	146.83	26.4	125.4	179.4	174.4	4.99	35.922		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 12C-1 - 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	121.92	-10.2	16.4	19.3				
100.0	100.0	100.0	100.0	0.1	0.1	121.92	-10.2	16.4	19.3	19.1	0.18	110.025	
200.0	200.0	200.0	200.0	0.3	0.3	121.92	-10.2	16.4	19.3	18.7	0.62	30.870	
300.0	300.0	300.0	300.0	0.5	0.5	121.92	-10.2	16.4	19.3	18.2	1.07	17.954 CC	
300.0	300.0	300.0	300.0	0.5	0.5	121.92	-10.2	16.4	19.3	18.2	1.08	17.933 ES	
400.0	400.0	399.5	399.5	0.8	0.8	175.59	-10.2	17.0	21.3	19.8	1.55	13.712 SF	
500.0	499.8	497.7	497.5	1.0	1.0	171.94	-10.4	22.1	32.4	30.3	2.11	15.325	
600.0	599.3	594.1	593.4	1.2	1.2	168.31	-10.6	31.9	50.5	48.0	2.56	19.750	
700.0	698.9	688.5	686.7	1.5	1.5	165.26	-11.0	46.3	73.4	70.3	3.02	24.275	
800.0	798.5	783.4	779.8	1.8	1.8	162.92	-11.5	64.5	100.1	96.6	3.50	28.588	
900.0	898.1	879.6	874.2	2.0	2.2	161.49	-12.0	83.3	127.2	123.2	3.96	32.123	
1,000.0	997.7	975.8	968.5	2.3	2.6	160.57	-12.5	102.1	154.4	150.0	4.43	34.866	
1,100.0	1,097.3	1,072.0	1,062.9	2.6	3.0	159.92	-13.1	120.9	181.6	176.7	4.90	37.036	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 12D-1 - 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	131.91	-17.5	19.5	26.2					
100.0	100.0	100.0	100.0	0.1	0.1	131.91	-17.5	19.5	26.2	26.0	0.18	149.291		
200.0	200.0	200.0	200.0	0.3	0.3	131.91	-17.5	19.5	26.2	25.5	0.62	41.888		
300.0	300.0	300.0	300.0	0.5	0.5	131.91	-17.5	19.5	26.2	25.1	1.07	24.361 CC, ES		
400.0	400.0	398.6	398.5	0.8	0.7	-176.05	-18.3	21.9	30.0	28.5	1.55	19.347 SF		
500.0	499.8	495.8	495.5	1.0	1.0	179.75	-20.6	29.0	43.8	41.7	2.13	20.566		
600.0	599.3	590.9	589.8	1.2	1.2	176.54	-24.4	40.5	65.0	62.4	2.58	25.159		
700.0	698.9	684.1	681.5	1.5	1.5	174.26	-29.5	56.0	90.9	87.8	3.05	29.753		
800.0	798.5	780.1	775.6	1.8	1.9	172.77	-35.4	73.9	118.8	115.3	3.51	33.851		
900.0	898.1	876.1	869.8	2.0	2.3	171.84	-41.3	91.7	146.8	142.8	3.96	37.033		
1,000.0	997.7	972.0	963.9	2.3	2.7	171.21	-47.2	109.5	174.8	170.4	4.43	39.482		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 13A-1 - 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	138.47	-25.5	22.6	34.1					
100.0	100.0	100.0	100.0	0.1	0.1	138.47	-25.5	22.6	34.1	33.9	0.18	194.273		
200.0	200.0	200.0	200.0	0.3	0.3	138.47	-25.5	22.6	34.1	33.4	0.62	54.508		
233.4	233.4	233.4	233.4	0.4	0.4	138.47	-25.5	22.6	34.1	33.3	0.78	43.944	CC, ES	
300.0	300.0	299.2	299.2	0.5	0.5	138.08	-25.8	23.1	34.7	33.6	1.06	32.585		
400.0	400.0	397.1	397.0	0.8	0.7	-170.61	-28.0	27.6	40.9	39.4	1.55	26.403	SF	
500.0	499.8	493.4	492.7	1.0	1.0	-174.76	-32.5	36.4	57.2	55.0	2.15	26.641		
600.0	599.3	587.2	585.4	1.2	1.3	-177.88	-38.9	49.1	80.8	78.2	2.61	30.993		
700.0	698.9	679.2	675.6	1.5	1.6	-179.98	-47.1	65.4	109.2	106.1	3.09	35.351		
800.0	798.5	774.6	768.7	1.8	2.0	178.63	-56.4	83.8	139.3	135.7	3.55	39.267		
900.0	898.1	869.9	861.8	2.0	2.4	177.74	-65.6	102.2	169.4	165.4	4.01	42.301		
1,000.0	997.7	965.2	954.9	2.3	2.9	177.11	-74.9	120.6	199.6	195.1	4.47	44.625		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 13B-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	141.61	-32.4	25.7	41.4					
100.0	100.0	100.0	100.0	0.1	0.1	141.61	-32.4	25.7	41.4	41.2	0.18	235.919		
200.0	200.0	200.0	200.0	0.3	0.3	141.61	-32.4	25.7	41.4	40.7	0.62	66.193 CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	140.44	-33.7	27.8	43.8	42.7	1.06	41.455		
400.0	400.0	395.2	394.8	0.8	0.7	-168.38	-37.5	34.2	52.5	50.9	1.57	33.439		
500.0	499.8	490.4	489.2	1.0	1.0	-172.16	-43.7	44.6	71.2	69.0	2.18	32.698 SF		
600.0	599.3	582.8	580.3	1.2	1.3	-175.04	-52.0	58.5	97.1	94.5	2.64	36.776		
700.0	698.9	672.7	667.9	1.5	1.7	-176.99	-62.2	75.7	127.8	124.7	3.12	40.985		
800.0	798.5	765.3	757.5	1.8	2.2	-178.37	-74.3	95.9	161.7	158.1	3.60	44.865		
900.0	898.1	859.3	848.3	2.0	2.7	-179.30	-86.6	116.5	195.7	191.6	4.07	48.138		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 13C-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	154.70	-36.4	17.2	40.3					
100.0	100.0	100.0	100.0	0.1	0.1	154.70	-36.4	17.2	40.3	40.1	0.18	229.802		
155.6	155.6	155.6	155.6	0.2	0.2	154.70	-36.4	17.2	40.3	39.9	0.43	94.778 CC		
200.0	200.0	199.5	199.5	0.3	0.3	154.60	-36.5	17.3	40.4	39.8	0.62	65.377 ES		
300.0	300.0	297.5	297.4	0.5	0.5	152.49	-38.9	20.3	43.9	42.9	1.05	41.980		
400.0	400.0	394.6	394.2	0.8	0.8	-157.52	-44.4	27.0	53.6	52.1	1.58	34.023		
500.0	499.8	489.5	488.1	1.0	1.0	-162.69	-52.8	37.2	73.1	70.9	2.19	33.419 SF		
600.0	599.3	581.6	578.5	1.2	1.4	-166.60	-63.7	50.6	100.0	97.4	2.67	37.534		
700.0	698.9	670.9	665.4	1.5	1.8	-169.09	-76.9	66.8	131.7	128.6	3.15	41.764		
800.0	798.5	764.7	755.9	1.8	2.3	-170.79	-92.2	85.5	165.9	162.2	3.63	45.630		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 41A-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	9.31	18.9	3.1	19.2					
100.0	100.0	100.0	100.0	0.1	0.1	9.31	18.9	3.1	19.2	19.0	0.18	109.475		
200.0	200.0	200.0	200.0	0.3	0.3	9.31	18.9	3.1	19.2	18.6	0.62	30.716 CC, ES		
300.0	300.0	298.9	298.9	0.5	0.5	10.56	21.3	4.0	21.7	20.7	1.08	20.200		
400.0	400.0	397.4	397.0	0.8	0.8	69.80	28.5	6.6	28.9	27.3	1.56	18.568 SF		
500.0	499.8	495.6	494.5	1.0	1.0	77.07	40.2	8.9	39.1	37.0	2.04	19.203		
600.0	599.3	593.4	591.0	1.2	1.4	79.42	56.2	8.6	52.1	49.5	2.54	20.460		
700.0	698.9	690.4	685.8	1.5	1.7	77.27	76.1	5.9	67.9	64.8	3.09	21.970		
800.0	798.5	786.0	778.3	1.8	2.2	73.36	99.9	0.7	87.0	83.3	3.67	23.719		
900.0	898.1	882.0	870.1	2.0	2.7	69.22	127.0	-6.5	109.1	104.9	4.26	25.626		
1,000.0	997.7	979.1	962.9	2.3	3.2	66.31	154.9	-14.0	132.0	127.1	4.84	27.249		
1,100.0	1,097.3	1,076.3	1,055.7	2.6	3.8	64.25	182.8	-21.5	155.0	149.6	5.43	28.561		
1,200.0	1,196.9	1,173.5	1,148.4	2.9	4.3	62.73	210.6	-29.0	178.2	172.2	6.01	29.637		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 41B-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	-1.85	26.2	-0.8	26.2					
100.0	100.0	100.0	100.0	0.1	0.1	-1.85	26.2	-0.8	26.2	26.1	0.18	149.661		
144.5	144.5	144.5	144.5	0.2	0.2	-1.85	26.2	-0.8	26.2	25.9	0.38	69.935	CC, ES	
200.0	200.0	199.5	199.5	0.3	0.3	-2.06	26.6	-1.0	26.6	26.0	0.62	42.701		
300.0	300.0	297.9	297.8	0.5	0.5	-4.05	31.0	-2.2	31.2	30.1	1.08	28.859		
400.0	400.0	395.8	395.2	0.8	0.8	48.89	40.2	-4.8	39.8	38.2	1.58	25.236		
500.0	499.8	493.0	491.3	1.0	1.1	51.17	54.1	-8.7	50.2	48.1	2.09	23.966	SF	
600.0	599.3	589.2	585.6	1.2	1.5	53.44	72.4	-13.9	64.0	61.4	2.61	24.529		
700.0	698.9	684.8	678.2	1.5	1.9	53.96	95.1	-20.2	82.5	79.4	3.16	26.087		
800.0	798.5	782.8	772.8	1.8	2.4	54.06	119.7	-27.2	102.5	98.8	3.71	27.604		
900.0	898.1	880.8	867.4	2.0	2.9	54.12	144.3	-34.1	122.5	118.2	4.27	28.684		
1,000.0	997.7	978.7	962.0	2.3	3.4	54.17	168.9	-41.0	142.4	137.6	4.83	29.466		
1,100.0	1,097.3	1,076.7	1,056.6	2.6	3.9	54.21	193.5	-48.0	162.4	157.0	5.40	30.067		
1,200.0	1,196.9	1,174.7	1,151.2	2.9	4.4	54.24	218.1	-54.9	182.4	176.4	5.98	30.519		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 41C-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	-22.58	14.9	-6.2	16.2					
100.0	100.0	100.0	100.0	0.1	0.1	-22.58	14.9	-6.2	16.2	16.0	0.18	92.252		
200.0	200.0	200.0	200.0	0.3	0.3	-22.58	14.9	-6.2	16.2	15.5	0.62	25.884	CC, ES	
300.0	300.0	299.4	299.4	0.5	0.5	-20.76	16.4	-6.2	17.5	16.5	1.08	16.279		
400.0	400.0	398.2	398.0	0.8	0.8	41.29	22.8	-6.2	22.6	21.0	1.56	14.515		
500.0	499.8	496.7	495.8	1.0	1.0	52.73	33.9	-7.1	29.5	27.5	2.05	14.380	SF	
600.0	599.3	594.8	592.7	1.2	1.3	57.75	48.9	-11.0	39.6	37.1	2.54	15.613		
700.0	698.9	693.1	689.0	1.5	1.7	57.18	67.3	-17.9	53.1	50.1	3.07	17.313		
800.0	798.5	792.1	785.8	1.8	2.1	56.42	86.3	-25.2	67.1	63.5	3.60	18.644		
900.0	898.1	891.1	882.7	2.0	2.5	55.93	105.4	-32.5	81.2	77.0	4.14	19.590		
1,000.0	997.7	990.1	979.6	2.3	2.9	55.58	124.4	-39.8	95.2	90.5	4.69	20.291		
1,100.0	1,097.3	1,089.1	1,076.5	2.6	3.4	55.33	143.5	-47.1	109.3	104.0	5.25	20.829		
1,200.0	1,196.9	1,188.1	1,173.4	2.9	3.8	55.13	162.5	-54.5	123.3	117.5	5.80	21.253		
1,300.0	1,296.5	1,287.1	1,270.3	3.1	4.2	54.97	181.5	-61.8	137.3	131.0	6.36	21.595		
1,400.0	1,396.1	1,386.1	1,367.1	3.4	4.6	54.84	200.6	-69.1	151.4	144.5	6.92	21.878		
1,500.0	1,495.7	1,485.1	1,464.0	3.7	5.1	54.73	219.6	-76.4	165.4	157.9	7.48	22.115		
1,600.0	1,595.3	1,584.1	1,560.9	4.0	5.5	54.64	238.7	-83.7	179.5	171.4	8.04	22.317		
1,700.0	1,694.9	1,683.1	1,657.8	4.2	5.9	54.56	257.7	-91.1	193.5	184.9	8.60	22.491		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 41D-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	-23.36	22.2	-9.6	24.2					
100.0	100.0	100.0	100.0	0.1	0.1	-23.36	22.2	-9.6	24.2	24.0	0.18	138.049		
155.6	155.6	155.6	155.6	0.2	0.2	-23.36	22.2	-9.6	24.2	23.8	0.43	56.939	CC	
200.0	200.0	199.7	199.7	0.3	0.3	-23.38	22.4	-9.7	24.4	23.7	0.62	39.037	ES	
300.0	300.0	298.3	298.2	0.5	0.5	-23.81	25.8	-11.4	28.2	27.2	1.08	26.167		
400.0	400.0	396.3	395.8	0.8	0.8	30.87	33.7	-15.3	36.0	34.4	1.58	22.833		
500.0	499.8	494.2	492.7	1.0	1.1	34.00	46.0	-21.5	44.5	42.4	2.11	21.066		
600.0	599.3	593.8	591.0	1.2	1.4	37.54	60.2	-28.6	53.0	50.4	2.58	20.547		
700.0	698.9	693.4	689.4	1.5	1.8	40.09	74.4	-35.7	61.7	58.6	3.07	20.092		
800.0	798.5	793.0	787.7	1.8	2.1	42.00	88.5	-42.8	70.4	66.8	3.58	19.693		
900.0	898.1	892.6	886.0	2.0	2.5	43.50	102.7	-49.9	79.2	75.1	4.09	19.355		
1,000.0	997.7	992.2	984.3	2.3	2.8	44.69	116.9	-56.9	88.1	83.4	4.62	19.069		
1,100.0	1,097.3	1,091.7	1,082.6	2.6	3.2	45.67	131.1	-64.0	96.9	91.8	5.15	18.829		
1,200.0	1,196.9	1,191.3	1,181.0	2.9	3.6	46.48	145.3	-71.1	105.8	100.2	5.68	18.621		
1,300.0	1,296.5	1,290.9	1,279.3	3.1	3.9	47.17	159.5	-78.2	114.8	108.5	6.22	18.443		
1,400.0	1,396.1	1,390.5	1,377.6	3.4	4.3	47.75	173.7	-85.3	123.7	116.9	6.76	18.289		
1,500.0	1,495.7	1,490.1	1,475.9	3.7	4.7	48.26	187.9	-92.4	132.7	125.3	7.31	18.155		
1,600.0	1,595.3	1,589.7	1,574.2	4.0	5.0	48.70	202.1	-99.5	141.6	133.8	7.85	18.037		
1,700.0	1,694.9	1,689.3	1,672.6	4.2	5.4	49.09	216.2	-106.6	150.6	142.2	8.40	17.933		
1,800.0	1,794.5	1,788.9	1,770.9	4.5	5.8	49.44	230.4	-113.7	159.5	150.6	8.94	17.841		
1,900.0	1,894.1	1,888.5	1,869.2	4.8	6.1	49.75	244.6	-120.8	168.5	159.0	9.49	17.758		
2,000.0	1,993.6	1,988.1	1,967.5	5.1	6.5	50.03	258.8	-127.9	177.5	167.5	10.04	17.684		
2,100.0	2,093.2	2,087.7	2,065.9	5.3	6.9	50.28	273.0	-135.0	186.5	175.9	10.59	17.617		
2,200.0	2,192.8	2,187.3	2,164.2	5.6	7.2	50.51	287.2	-142.1	195.5	184.3	11.13	17.557	SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 42A-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	-24.17	6.9	-3.1	7.6					
100.0	100.0	100.0	100.0	0.1	0.1	-24.17	6.9	-3.1	7.6	7.4	0.18	43.265		
200.0	200.0	200.0	200.0	0.3	0.3	-24.17	6.9	-3.1	7.6	7.0	0.62	12.139		
255.6	255.6	255.6	255.6	0.4	0.4	-24.17	6.9	-3.1	7.6	6.7	0.87	8.672 CC		
300.0	300.0	299.9	299.9	0.5	0.5	-24.42	7.1	-3.2	7.7	6.7	1.07	7.213 ES		
400.0	400.0	399.4	399.3	0.8	0.8	29.42	10.2	-5.5	10.3	8.7	1.55	6.653		
500.0	499.8	498.8	498.2	1.0	1.0	35.23	17.5	-10.9	13.6	11.5	2.07	6.575 SF		
600.0	599.3	598.6	597.3	1.2	1.3	40.18	27.3	-18.1	18.0	15.5	2.53	7.108		
700.0	698.9	698.5	696.4	1.5	1.6	43.14	37.2	-25.4	22.5	19.5	3.02	7.455		
800.0	798.5	798.4	795.6	1.8	1.9	45.11	47.0	-32.6	27.0	23.5	3.52	7.679		
900.0	898.1	898.2	894.7	2.0	2.2	46.52	56.9	-39.9	31.6	27.6	4.03	7.832		
1,000.0	997.7	998.1	993.9	2.3	2.5	47.57	66.7	-47.1	36.2	31.6	4.56	7.942		
1,100.0	1,097.3	1,098.0	1,093.0	2.6	2.8	48.38	76.6	-54.4	40.8	35.7	5.08	8.023		
1,200.0	1,196.9	1,197.9	1,192.1	2.9	3.1	49.03	86.5	-61.6	45.4	39.8	5.61	8.085		
1,300.0	1,296.5	1,297.8	1,291.3	3.1	3.4	49.56	96.3	-68.9	50.0	43.8	6.14	8.134		
1,400.0	1,396.1	1,397.7	1,390.4	3.4	3.7	50.00	106.2	-76.2	54.6	47.9	6.68	8.173		
1,500.0	1,495.7	1,497.6	1,489.6	3.7	4.1	50.37	116.0	-83.4	59.2	52.0	7.21	8.205		
1,600.0	1,595.3	1,597.5	1,588.7	4.0	4.4	50.68	125.9	-90.7	63.8	56.0	7.75	8.232		
1,700.0	1,694.9	1,697.4	1,687.8	4.2	4.7	50.96	135.8	-97.9	68.4	60.1	8.28	8.255		
1,800.0	1,794.5	1,797.3	1,787.0	4.5	5.0	51.20	145.6	-105.2	73.0	64.2	8.82	8.275		
1,900.0	1,894.1	1,897.2	1,886.1	4.8	5.3	51.41	155.5	-112.5	77.6	68.3	9.36	8.292		
2,000.0	1,993.6	1,997.1	1,985.3	5.1	5.6	51.60	165.4	-119.7	82.2	72.3	9.90	8.306		
2,100.0	2,093.2	2,097.0	2,084.4	5.3	6.0	51.77	175.2	-127.0	86.8	76.4	10.44	8.319		
2,200.0	2,192.8	2,196.9	2,183.5	5.6	6.3	51.92	185.1	-134.2	91.5	80.5	10.98	8.331		
2,300.0	2,292.4	2,296.8	2,282.7	5.9	6.6	52.05	194.9	-141.5	96.1	84.6	11.52	8.342		
2,400.0	2,392.0	2,396.6	2,381.8	6.2	6.9	52.18	204.8	-148.7	100.7	88.6	12.06	8.351		
2,500.0	2,491.6	2,496.5	2,481.0	6.5	7.2	52.29	214.7	-156.0	105.3	92.7	12.60	8.360		
2,600.0	2,591.2	2,596.4	2,580.1	6.7	7.5	52.39	224.5	-163.3	109.9	96.8	13.14	8.367		
2,700.0	2,690.8	2,696.3	2,679.2	7.0	7.8	52.49	234.4	-170.5	114.5	100.9	13.68	8.375		
2,800.0	2,790.4	2,796.2	2,778.4	7.3	8.2	52.58	244.2	-177.8	119.2	104.9	14.22	8.381		
2,900.0	2,890.0	2,896.1	2,877.5	7.6	8.5	52.66	254.1	-185.0	123.8	109.0	14.76	8.387		
3,000.0	2,989.6	2,996.0	2,976.7	7.8	8.8	52.73	264.0	-192.3	128.4	113.1	15.30	8.393		
3,100.0	3,089.2	3,095.9	3,075.8	8.1	9.1	52.80	273.8	-199.6	133.0	117.2	15.84	8.399		
3,200.0	3,188.8	3,195.8	3,174.9	8.4	9.4	52.87	283.7	-206.8	137.6	121.3	16.38	8.404		
3,300.0	3,288.4	3,295.7	3,274.1	8.7	9.7	52.93	293.5	-214.1	142.3	125.3	16.92	8.408		
3,400.0	3,387.9	3,395.6	3,373.2	9.0	10.1	52.99	303.4	-221.3	146.9	129.4	17.46	8.413		
3,500.0	3,487.5	3,495.5	3,472.4	9.2	10.4	53.04	313.3	-228.6	151.5	133.5	18.00	8.417		
3,600.0	3,587.1	3,595.4	3,571.5	9.5	10.7	53.09	323.1	-235.8	156.1	137.6	18.54	8.421		
3,700.0	3,686.7	3,695.3	3,670.6	9.8	11.0	53.14	333.0	-243.1	160.7	141.6	19.08	8.425		
3,800.0	3,786.3	3,795.2	3,769.8	10.1	11.3	53.19	342.9	-250.4	165.3	145.7	19.62	8.428		
3,900.0	3,885.9	3,895.0	3,868.9	10.4	11.7	53.23	352.7	-257.6	170.0	149.8	20.16	8.432		
4,000.0	3,985.5	3,994.9	3,968.1	10.6	12.0	53.27	362.6	-264.9	174.6	153.9	20.70	8.435		
4,100.0	4,085.1	4,094.8	4,067.2	10.9	12.3	53.31	372.4	-272.1	179.2	158.0	21.24	8.438		
4,200.0	4,184.7	4,194.7	4,166.3	11.2	12.6	53.34	382.3	-279.4	183.8	162.0	21.78	8.441		
4,300.0	4,284.3	4,294.6	4,265.5	11.5	12.9	53.38	392.2	-286.6	188.4	166.1	22.32	8.444		
4,400.0	4,383.9	4,394.5	4,364.6	11.8	13.2	53.41	402.0	-293.9	193.1	170.2	22.86	8.447		
4,500.0	4,483.5	4,494.4	4,463.8	12.0	13.6	53.44	411.9	-301.2	197.7	174.3	23.40	8.450		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 42C-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									
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	151.52	-7.3	4.0	8.3						
100.0	100.0	100.0	100.0	0.1	0.1	151.52	-7.3	4.0	8.3	8.1	0.18	47.272			
200.0	200.0	200.0	200.0	0.3	0.3	151.52	-7.3	4.0	8.3	7.7	0.62	13.263			
300.0	300.0	300.0	300.0	0.5	0.5	151.52	-7.3	4.0	8.3	7.2	1.07	7.714 CC, ES			
400.0	400.0	400.1	400.1	0.8	0.8	-157.21	-7.3	3.8	9.5	8.0	1.55	6.155 SF			
500.0	499.8	500.3	500.2	1.0	1.0	-154.39	-6.9	-0.1	13.3	11.2	2.06	6.424			
600.0	599.3	600.3	599.9	1.2	1.2	-147.04	-6.3	-7.5	17.5	15.0	2.50	7.008			
700.0	698.9	700.2	699.5	1.5	1.4	-142.44	-5.7	-14.8	21.9	18.9	2.97	7.373			
800.0	798.5	800.1	799.2	1.8	1.7	-139.38	-5.1	-22.2	26.4	22.9	3.46	7.620			
900.0	898.1	900.0	898.8	2.0	1.9	-137.22	-4.5	-29.6	30.9	26.9	3.96	7.794			
1,000.0	997.7	999.8	998.4	2.3	2.2	-135.61	-3.9	-37.0	35.5	31.0	4.47	7.923			
1,100.0	1,097.3	1,099.7	1,098.0	2.6	2.5	-134.37	-3.3	-44.4	40.0	35.0	4.99	8.021			
1,200.0	1,196.9	1,199.6	1,197.6	2.9	2.7	-133.38	-2.7	-51.7	44.6	39.1	5.51	8.098			
1,300.0	1,296.5	1,299.5	1,297.2	3.1	3.0	-132.58	-2.1	-59.1	49.2	43.2	6.04	8.160			
1,400.0	1,396.1	1,399.4	1,396.9	3.4	3.2	-131.92	-1.5	-66.5	53.9	47.3	6.56	8.211			
1,500.0	1,495.7	1,499.3	1,496.5	3.7	3.5	-131.36	-0.9	-73.9	58.5	51.4	7.09	8.253			
1,600.0	1,595.3	1,599.2	1,596.1	4.0	3.8	-130.88	-0.3	-81.3	63.1	55.5	7.61	8.289			
1,700.0	1,694.9	1,699.1	1,695.7	4.2	4.0	-130.47	0.3	-88.7	67.8	59.6	8.14	8.320			
1,800.0	1,794.5	1,799.0	1,795.3	4.5	4.3	-130.11	0.9	-96.0	72.4	63.7	8.67	8.347			
1,900.0	1,894.1	1,898.9	1,894.9	4.8	4.5	-129.79	1.5	-103.4	77.0	67.8	9.20	8.371			
2,000.0	1,993.6	1,998.8	1,994.6	5.1	4.8	-129.51	2.1	-110.8	81.7	71.9	9.73	8.392			
2,100.0	2,093.2	2,098.7	2,094.2	5.3	5.1	-129.26	2.7	-118.2	86.3	76.1	10.26	8.410			
2,200.0	2,192.8	2,198.5	2,193.8	5.6	5.3	-129.04	3.3	-125.6	91.0	80.2	10.79	8.427			
2,300.0	2,292.4	2,298.4	2,293.4	5.9	5.6	-128.84	4.0	-132.9	95.6	84.3	11.32	8.442			
2,400.0	2,392.0	2,398.3	2,393.0	6.2	5.9	-128.65	4.6	-140.3	100.3	88.4	11.86	8.456			
2,500.0	2,491.6	2,498.2	2,492.6	6.5	6.1	-128.49	5.2	-147.7	104.9	92.5	12.39	8.469			
2,600.0	2,591.2	2,598.1	2,592.3	6.7	6.4	-128.33	5.8	-155.1	109.5	96.6	12.92	8.480			
2,700.0	2,690.8	2,698.0	2,691.9	7.0	6.6	-128.19	6.4	-162.5	114.2	100.7	13.45	8.491			
2,800.0	2,790.4	2,797.9	2,791.5	7.3	6.9	-128.06	7.0	-169.8	118.8	104.9	13.98	8.501			
2,900.0	2,890.0	2,897.8	2,891.1	7.6	7.2	-127.94	7.6	-177.2	123.5	109.0	14.51	8.510			
3,000.0	2,989.6	2,997.7	2,990.7	7.8	7.4	-127.83	8.2	-184.6	128.1	113.1	15.04	8.518			
3,100.0	3,089.2	3,097.6	3,090.3	8.1	7.7	-127.73	8.8	-192.0	132.8	117.2	15.58	8.526			
3,200.0	3,188.8	3,197.5	3,189.9	8.4	8.0	-127.63	9.4	-199.4	137.5	121.3	16.11	8.534			
3,300.0	3,288.4	3,297.3	3,289.6	8.7	8.2	-127.54	10.0	-206.7	142.1	125.5	16.64	8.541			
3,400.0	3,387.9	3,397.2	3,389.2	9.0	8.5	-127.46	10.6	-214.1	146.8	129.6	17.17	8.548			
3,500.0	3,487.5	3,497.1	3,488.8	9.2	8.8	-127.38	11.2	-221.5	151.4	133.7	17.70	8.554			
3,600.0	3,587.1	3,597.0	3,588.4	9.5	9.0	-127.30	11.8	-228.9	156.1	137.8	18.23	8.560			
3,700.0	3,686.7	3,696.9	3,688.0	9.8	9.3	-127.23	12.4	-236.3	160.7	142.0	18.76	8.566			
3,800.0	3,786.3	3,796.8	3,787.6	10.1	9.5	-127.17	13.0	-243.7	165.4	146.1	19.29	8.571			
3,900.0	3,885.9	3,896.7	3,887.3	10.4	9.8	-127.10	13.7	-251.0	170.0	150.2	19.82	8.576			
4,000.0	3,985.5	3,996.6	3,986.9	10.6	10.1	-127.04	14.3	-258.4	174.7	154.3	20.36	8.581			
4,100.0	4,085.1	4,096.5	4,086.5	10.9	10.3	-126.99	14.9	-265.8	179.3	158.4	20.89	8.586			
4,200.0	4,184.7	4,196.4	4,186.1	11.2	10.6	-126.93	15.5	-273.2	184.0	162.6	21.42	8.590			
4,300.0	4,284.3	4,296.3	4,285.7	11.5	10.9	-126.88	16.1	-280.6	188.6	166.7	21.95	8.595			
4,400.0	4,383.9	4,396.2	4,385.3	11.8	11.1	-126.84	16.7	-287.9	193.3	170.8	22.48	8.599			
4,500.0	4,483.5	4,496.0	4,485.0	12.0	11.4	-126.79	17.3	-295.3	197.9	174.9	23.01	8.603			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 42D-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	153.58	-14.2	7.1	15.9					
100.0	100.0	100.0	100.0	0.1	0.1	153.58	-14.2	7.1	15.9	15.7	0.18	90.473		
200.0	200.0	200.0	200.0	0.3	0.3	153.58	-14.2	7.1	15.9	15.2	0.62	25.384		
300.0	300.0	300.0	300.0	0.5	0.5	153.58	-14.2	7.1	15.9	14.8	1.07	14.763 CC, ES		
400.0	400.0	399.9	399.9	0.8	0.7	-149.51	-14.9	5.8	17.2	15.7	1.54	11.221 SF		
500.0	499.8	499.6	499.3	1.0	1.0	-141.79	-18.0	0.1	23.6	21.6	2.04	11.555		
600.0	599.3	599.1	598.5	1.2	1.2	-137.15	-22.0	-7.2	32.6	30.1	2.50	13.054		
700.0	698.9	698.7	697.8	1.5	1.4	-134.53	-26.0	-14.6	41.8	38.8	2.99	13.985		
800.0	798.5	798.3	797.0	1.8	1.7	-132.86	-30.0	-21.9	51.0	47.5	3.49	14.600		
900.0	898.1	897.8	896.2	2.0	2.0	-131.69	-34.1	-29.3	60.2	56.2	4.00	15.031		
1,000.0	997.7	997.4	995.4	2.3	2.2	-130.84	-38.1	-36.6	69.4	64.9	4.52	15.346		
1,100.0	1,097.3	1,097.0	1,094.6	2.6	2.5	-130.18	-42.1	-44.0	78.6	73.6	5.05	15.586		
1,200.0	1,196.9	1,196.5	1,193.8	2.9	2.8	-129.67	-46.1	-51.3	87.9	82.3	5.57	15.774		
1,300.0	1,296.5	1,296.1	1,293.1	3.1	3.0	-129.25	-50.1	-58.6	97.2	91.1	6.10	15.925		
1,400.0	1,396.1	1,395.7	1,392.3	3.4	3.3	-128.90	-54.1	-66.0	106.4	99.8	6.63	16.049		
1,500.0	1,495.7	1,495.2	1,491.5	3.7	3.6	-128.61	-58.1	-73.3	115.7	108.5	7.16	16.153		
1,600.0	1,595.3	1,594.8	1,590.7	4.0	3.9	-128.37	-62.1	-80.7	125.0	117.3	7.69	16.241		
1,700.0	1,694.9	1,694.4	1,689.9	4.2	4.1	-128.15	-66.2	-88.0	134.2	126.0	8.23	16.316		
1,800.0	1,794.5	1,794.0	1,789.1	4.5	4.4	-127.97	-70.2	-95.4	143.5	134.7	8.76	16.382		
1,900.0	1,894.1	1,893.5	1,888.3	4.8	4.7	-127.80	-74.2	-102.7	152.8	143.5	9.29	16.440		
2,000.0	1,993.6	1,993.1	1,987.6	5.1	5.0	-127.66	-78.2	-110.1	162.0	152.2	9.83	16.491		
2,100.0	2,093.2	2,092.7	2,086.8	5.3	5.2	-127.53	-82.2	-117.4	171.3	161.0	10.36	16.537		
2,200.0	2,192.8	2,192.2	2,186.0	5.6	5.5	-127.42	-86.2	-124.7	180.6	169.7	10.89	16.578		
2,300.0	2,292.4	2,291.8	2,285.2	5.9	5.8	-127.31	-90.2	-132.1	189.9	178.4	11.43	16.616		
2,400.0	2,392.0	2,391.4	2,384.4	6.2	6.1	-127.22	-94.2	-139.4	199.2	187.2	11.96	16.650		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 43A-2 - 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	154.69	-21.5	10.2	23.8					
100.0	100.0	100.0	100.0	0.1	0.1	154.69	-21.5	10.2	23.8	23.6	0.18	135.590		
200.0	200.0	200.0	200.0	0.3	0.3	154.69	-21.5	10.2	23.8	23.1	0.62	38.043		
255.7	255.7	255.7	255.7	0.4	0.4	154.69	-21.5	10.2	23.8	22.9	0.88	27.166 CC		
300.0	300.0	299.9	299.9	0.5	0.5	155.05	-21.6	10.1	23.8	22.8	1.07	22.310 ES		
400.0	400.0	399.2	399.1	0.8	0.7	-144.62	-24.6	7.5	26.9	25.4	1.52	17.721 SF		
500.0	499.8	497.7	497.2	1.0	1.0	-138.25	-31.3	1.7	37.0	35.0	2.06	17.988		
600.0	599.3	596.8	595.6	1.2	1.2	-134.71	-39.9	-5.6	50.7	48.1	2.53	20.013		
700.0	698.9	695.8	694.0	1.5	1.5	-132.68	-48.5	-12.9	64.4	61.4	3.03	21.261		
800.0	798.5	794.8	792.4	1.8	1.8	-131.36	-57.1	-20.2	78.2	74.7	3.54	22.078		
900.0	898.1	893.9	890.8	2.0	2.1	-130.44	-65.6	-27.5	92.0	88.0	4.06	22.645		
1,000.0	997.7	992.9	989.2	2.3	2.4	-129.76	-74.2	-34.9	105.9	101.3	4.59	23.058		
1,100.0	1,097.3	1,091.9	1,087.6	2.6	2.7	-129.23	-82.8	-42.2	119.7	114.6	5.12	23.371		
1,200.0	1,196.9	1,191.0	1,185.9	2.9	3.0	-128.82	-91.3	-49.5	133.6	127.9	5.66	23.614		
1,300.0	1,296.5	1,290.0	1,284.3	3.1	3.3	-128.48	-99.9	-56.8	147.4	141.2	6.19	23.811		
1,400.0	1,396.1	1,389.0	1,382.7	3.4	3.6	-128.20	-108.5	-64.1	161.3	154.6	6.73	23.972		
1,500.0	1,495.7	1,488.0	1,481.1	3.7	3.9	-127.97	-117.0	-71.5	175.2	167.9	7.27	24.107		
1,600.0	1,595.3	1,587.1	1,579.5	4.0	4.3	-127.77	-125.6	-78.8	189.0	181.2	7.80	24.222		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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) - PUCKETT 43B-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	155.78	-29.5	13.3	32.3					
100.0	100.0	100.0	100.0	0.1	0.1	155.78	-29.5	13.3	32.3	32.2	0.18	184.491		
200.0	200.0	200.0	200.0	0.3	0.3	155.78	-29.5	13.3	32.3	31.7	0.62	51.764	CC, ES	
300.0	300.0	299.2	299.2	0.5	0.5	157.78	-30.8	12.6	33.2	32.2	1.06	31.341		
400.0	400.0	397.7	397.5	0.8	0.7	-141.59	-36.3	9.5	38.7	37.2	1.53	25.338		
500.0	499.8	495.1	494.2	1.0	1.0	-136.85	-46.1	4.0	52.2	50.1	2.08	25.040	SF	
600.0	599.3	592.9	590.9	1.2	1.3	-133.87	-59.0	-3.2	70.3	67.7	2.58	27.204		
700.0	698.9	691.2	688.0	1.5	1.6	-132.06	-72.0	-10.5	88.5	85.5	3.09	28.682		
800.0	798.5	789.5	785.2	1.8	2.0	-130.86	-85.1	-17.8	106.9	103.3	3.61	29.636		
900.0	898.1	887.8	882.3	2.0	2.3	-130.02	-98.1	-25.1	125.3	121.1	4.14	30.289		
1,000.0	997.7	986.0	979.5	2.3	2.7	-129.39	-111.1	-32.4	143.7	139.0	4.67	30.759		
1,100.0	1,097.3	1,084.3	1,076.6	2.6	3.0	-128.91	-124.1	-39.7	162.1	156.9	5.21	31.112		
1,200.0	1,196.9	1,182.6	1,173.8	2.9	3.4	-128.52	-137.2	-47.0	180.5	174.7	5.75	31.383		
1,300.0	1,296.5	1,280.9	1,270.9	3.1	3.7	-128.21	-150.2	-54.3	198.9	192.6	6.29	31.601		

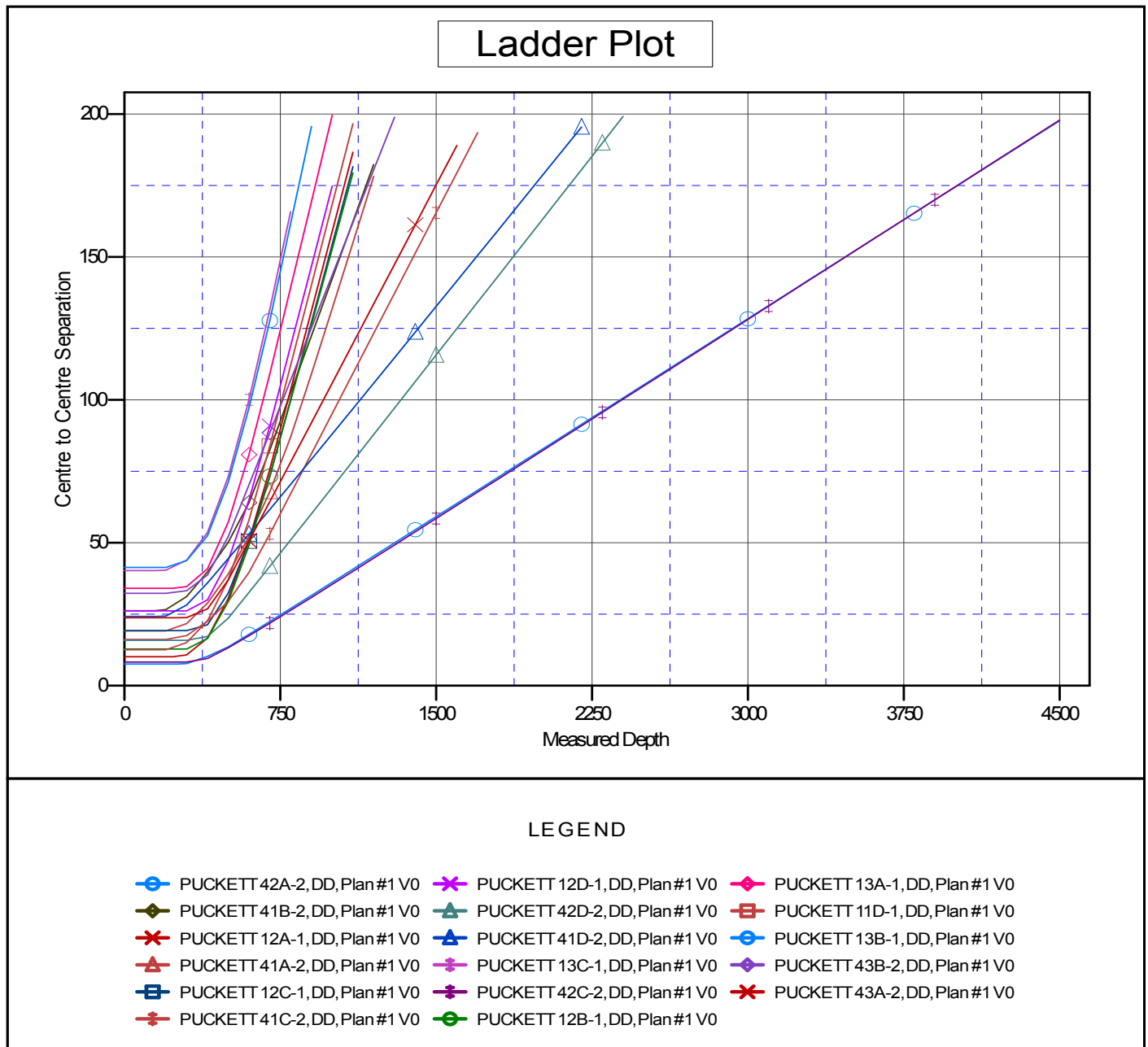
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-2
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=22' @ 8499.0usft
<b>Reference Site:</b>	S2-T7S-R97W (Puckett Pad)	<b>MD Reference:</b>	KB=22' @ 8499.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PUCKETT 42B-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' @ 8499.0usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 42B-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