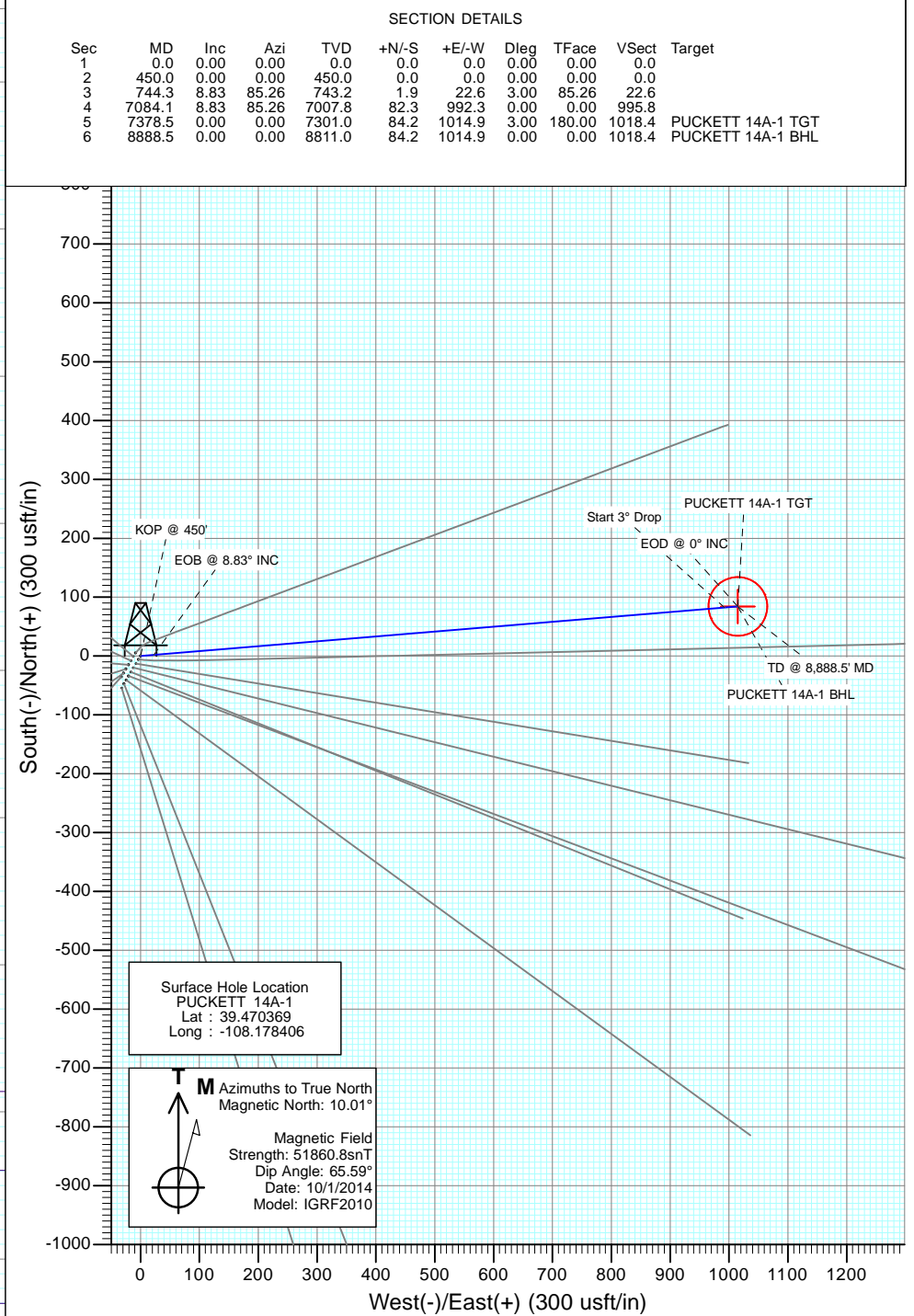
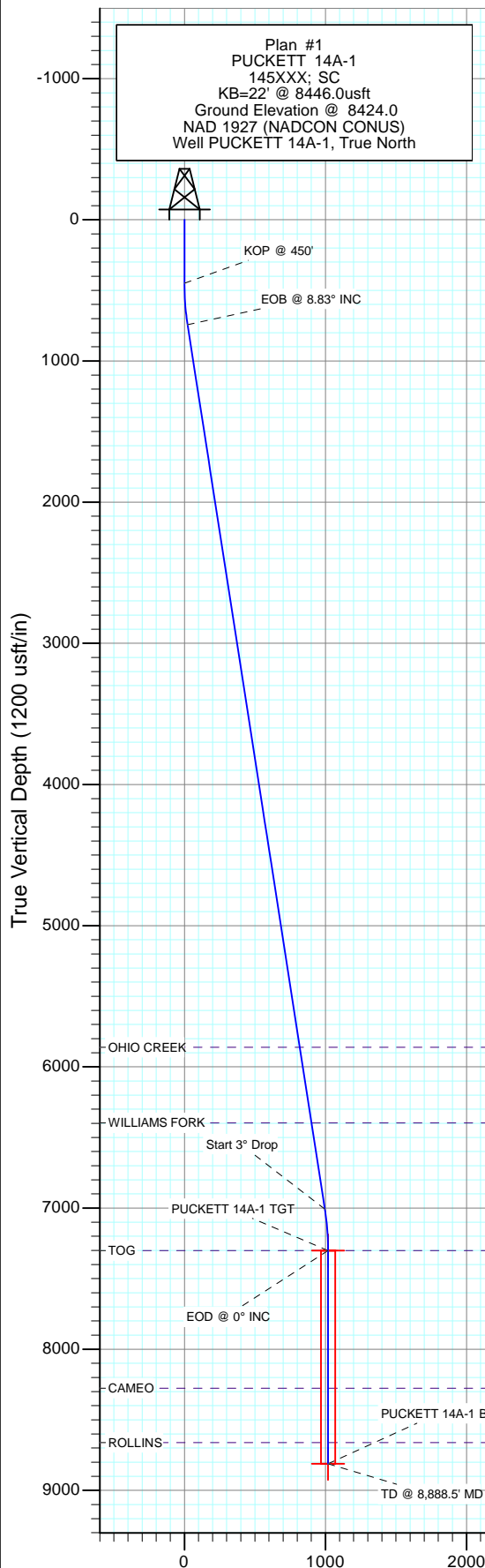


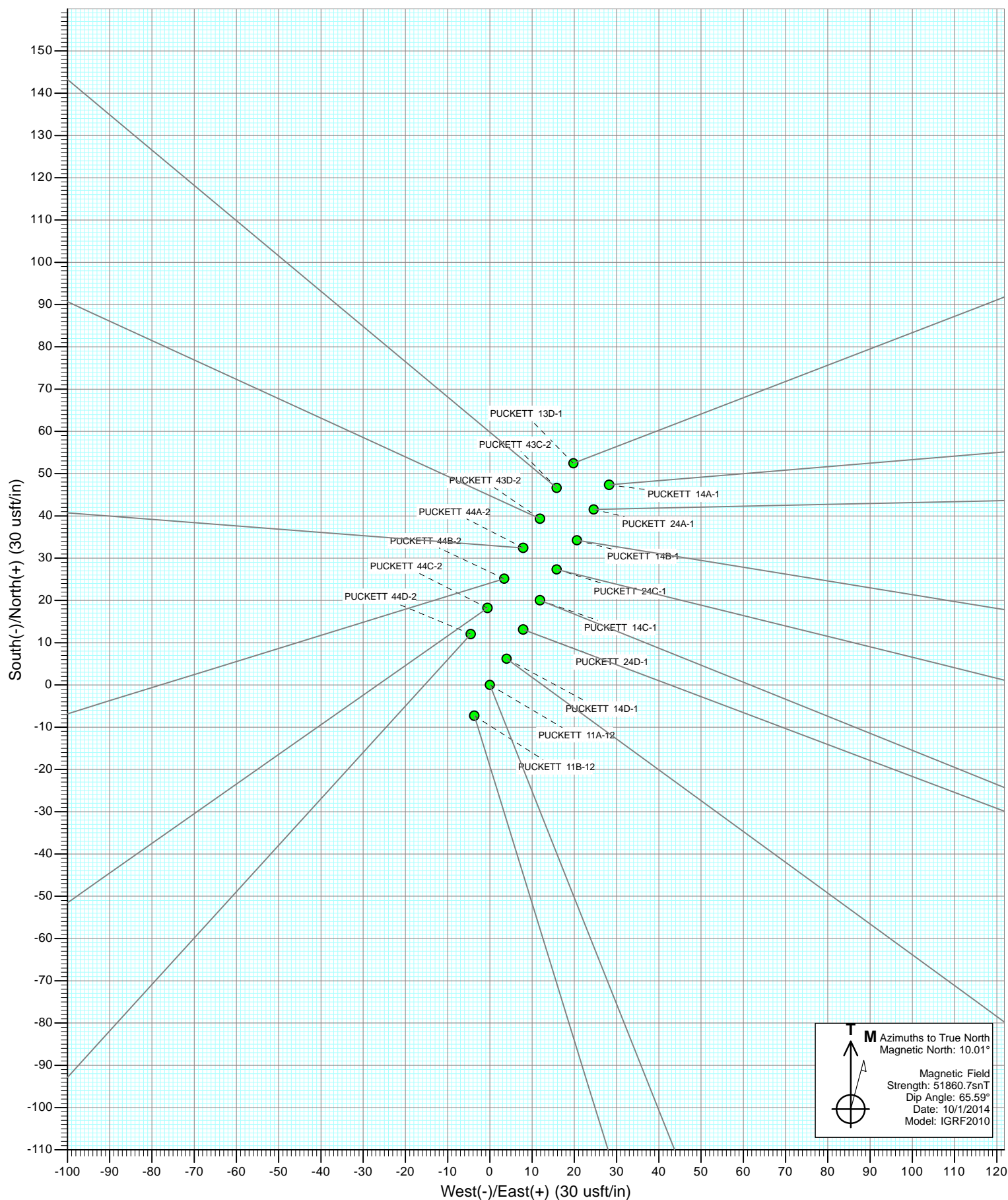


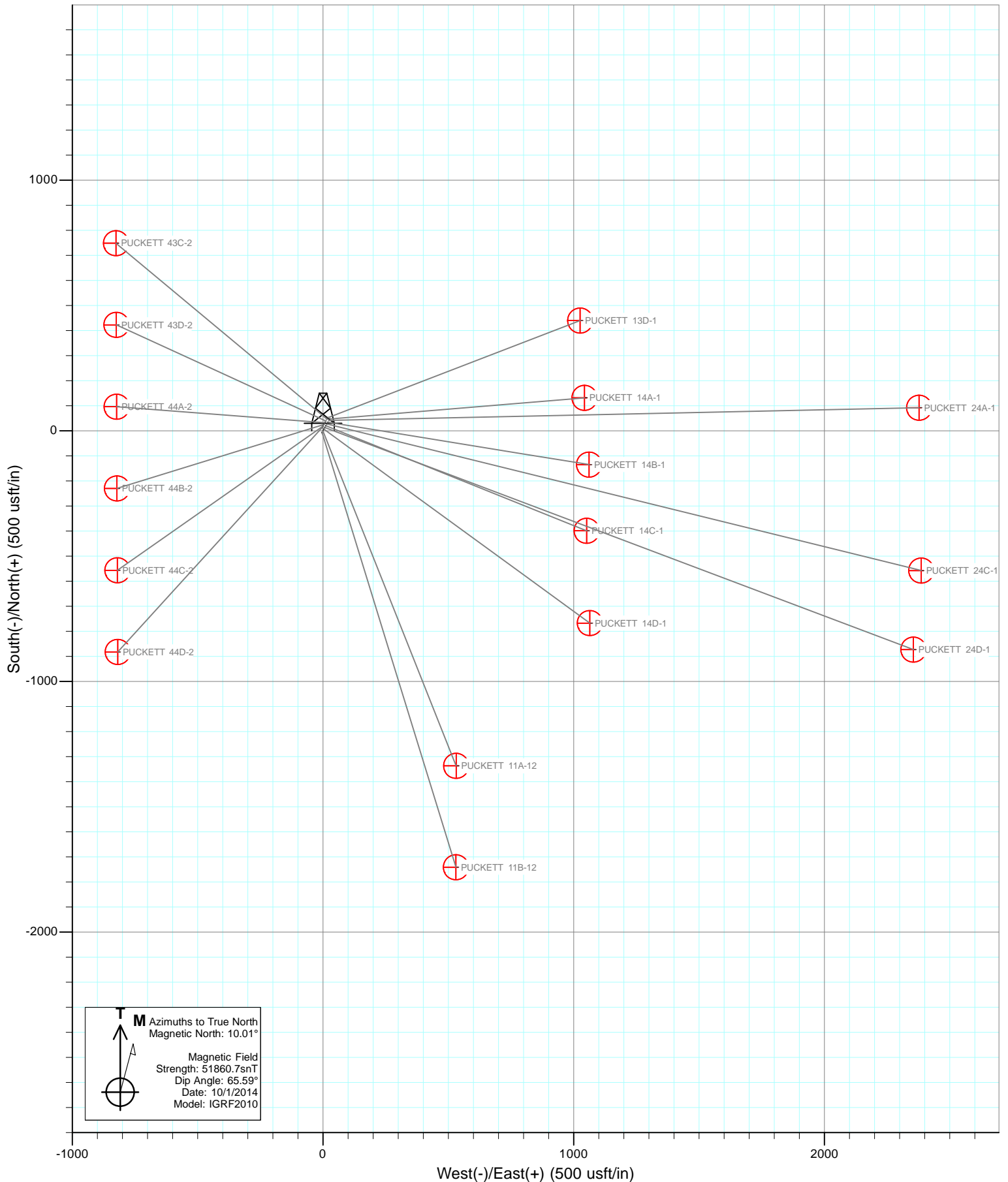
Project: Garfield County, CO
Site: S2-T7S-R97W (Puckett Pad P2)
Well: PUCKETT 14A-1
Wellbore: DD
Design: Plan #1



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 14A-1 TGT	84.2	1014.9	607398.94	1244984.19	39.470600	-108.174811
PUCKETT 14A-1 BHL	84.2	1014.9	607398.94	1244984.19	39.470600	-108.174811

Vertical Section at 85.26° (1200 usft/in)





Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Garfield County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	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 14A-1					
Well Position	+N/-S	0.0 usft	Northing:	607,344.72 usft	Latitude:	39.470369
	+E/-W	0.0 usft	Easting:	1,243,967.25 usft	Longitude:	-108.178406
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,424.0 usft

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

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	85.26	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
744.3	8.83	85.26	743.2	1.9	22.6	3.00	3.00	0.00	85.26	
7,084.1	8.83	85.26	7,007.8	82.3	992.3	0.00	0.00	0.00	0.00	
7,378.5	0.00	0.00	7,301.0	84.2	1,014.9	3.00	-3.00	0.00	180.00	PUCKETT 14A-1 TG1
8,888.5	0.00	0.00	8,811.0	84.2	1,014.9	0.00	0.00	0.00	0.00	PUCKETT 14A-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	KOP @ 450'
500.0	1.50	85.26	500.0	0.1	0.7	0.7	3.00	3.00	
600.0	4.50	85.26	599.8	0.5	5.9	5.9	3.00	3.00	
700.0	7.50	85.26	699.3	1.4	16.3	16.3	3.00	3.00	
744.3	8.83	85.26	743.2	1.9	22.6	22.6	3.00	3.00	EOB @ 8.83° INC
800.0	8.83	85.26	798.2	2.6	31.1	31.2	0.00	0.00	
900.0	8.83	85.26	897.0	3.8	46.4	46.5	0.00	0.00	
1,000.0	8.83	85.26	995.8	5.1	61.7	61.9	0.00	0.00	
1,100.0	8.83	85.26	1,094.6	6.4	77.0	77.2	0.00	0.00	
1,200.0	8.83	85.26	1,193.4	7.7	92.3	92.6	0.00	0.00	
1,300.0	8.83	85.26	1,292.3	8.9	107.6	107.9	0.00	0.00	
1,400.0	8.83	85.26	1,391.1	10.2	122.9	123.3	0.00	0.00	
1,500.0	8.83	85.26	1,489.9	11.5	138.2	138.6	0.00	0.00	
1,600.0	8.83	85.26	1,588.7	12.7	153.4	154.0	0.00	0.00	
1,700.0	8.83	85.26	1,687.5	14.0	168.7	169.3	0.00	0.00	
1,800.0	8.83	85.26	1,786.3	15.3	184.0	184.7	0.00	0.00	
1,900.0	8.83	85.26	1,885.1	16.5	199.3	200.0	0.00	0.00	
2,000.0	8.83	85.26	1,984.0	17.8	214.6	215.4	0.00	0.00	
2,100.0	8.83	85.26	2,082.8	19.1	229.9	230.7	0.00	0.00	
2,200.0	8.83	85.26	2,181.6	20.3	245.2	246.1	0.00	0.00	
2,300.0	8.83	85.26	2,280.4	21.6	260.5	261.4	0.00	0.00	
2,400.0	8.83	85.26	2,379.2	22.9	275.8	276.8	0.00	0.00	
2,500.0	8.83	85.26	2,478.0	24.1	291.1	292.1	0.00	0.00	
2,600.0	8.83	85.26	2,576.8	25.4	306.4	307.5	0.00	0.00	
2,700.0	8.83	85.26	2,675.7	26.7	321.7	322.8	0.00	0.00	
2,800.0	8.83	85.26	2,774.5	27.9	337.0	338.2	0.00	0.00	
2,900.0	8.83	85.26	2,873.3	29.2	352.3	353.5	0.00	0.00	
3,000.0	8.83	85.26	2,972.1	30.5	367.6	368.9	0.00	0.00	
3,100.0	8.83	85.26	3,070.9	31.8	382.9	384.2	0.00	0.00	
3,200.0	8.83	85.26	3,169.7	33.0	398.2	399.6	0.00	0.00	
3,300.0	8.83	85.26	3,268.6	34.3	413.5	414.9	0.00	0.00	
3,400.0	8.83	85.26	3,367.4	35.6	428.8	430.3	0.00	0.00	
3,500.0	8.83	85.26	3,466.2	36.8	444.1	445.6	0.00	0.00	
3,600.0	8.83	85.26	3,565.0	38.1	459.4	461.0	0.00	0.00	
3,700.0	8.83	85.26	3,663.8	39.4	474.7	476.3	0.00	0.00	
3,800.0	8.83	85.26	3,762.6	40.6	490.0	491.7	0.00	0.00	
3,900.0	8.83	85.26	3,861.4	41.9	505.3	507.0	0.00	0.00	
4,000.0	8.83	85.26	3,960.3	43.2	520.6	522.4	0.00	0.00	
4,100.0	8.83	85.26	4,059.1	44.4	535.9	537.7	0.00	0.00	
4,200.0	8.83	85.26	4,157.9	45.7	551.2	553.1	0.00	0.00	
4,300.0	8.83	85.26	4,256.7	47.0	566.5	568.4	0.00	0.00	
4,400.0	8.83	85.26	4,355.5	48.2	581.8	583.8	0.00	0.00	
4,500.0	8.83	85.26	4,454.3	49.5	597.1	599.1	0.00	0.00	
4,600.0	8.83	85.26	4,553.1	50.8	612.4	614.5	0.00	0.00	
4,700.0	8.83	85.26	4,652.0	52.1	627.6	629.8	0.00	0.00	
4,800.0	8.83	85.26	4,750.8	53.3	642.9	645.2	0.00	0.00	
4,900.0	8.83	85.26	4,849.6	54.6	658.2	660.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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	8.83	85.26	4,948.4	55.9	673.5	675.9	0.00	0.00	
5,100.0	8.83	85.26	5,047.2	57.1	688.8	691.2	0.00	0.00	
5,200.0	8.83	85.26	5,146.0	58.4	704.1	706.6	0.00	0.00	
5,300.0	8.83	85.26	5,244.9	59.7	719.4	721.9	0.00	0.00	
5,400.0	8.83	85.26	5,343.7	60.9	734.7	737.3	0.00	0.00	
5,500.0	8.83	85.26	5,442.5	62.2	750.0	752.6	0.00	0.00	
5,600.0	8.83	85.26	5,541.3	63.5	765.3	767.9	0.00	0.00	
5,700.0	8.83	85.26	5,640.1	64.7	780.6	783.3	0.00	0.00	
5,800.0	8.83	85.26	5,738.9	66.0	795.9	798.6	0.00	0.00	
5,900.0	8.83	85.26	5,837.7	67.3	811.2	814.0	0.00	0.00	
5,923.5	8.83	85.26	5,861.0	67.6	814.8	817.6	0.00	0.00	OHIO CREEK
6,000.0	8.83	85.26	5,936.6	68.5	826.5	829.3	0.00	0.00	
6,100.0	8.83	85.26	6,035.4	69.8	841.8	844.7	0.00	0.00	
6,200.0	8.83	85.26	6,134.2	71.1	857.1	860.0	0.00	0.00	
6,300.0	8.83	85.26	6,233.0	72.4	872.4	875.4	0.00	0.00	
6,400.0	8.83	85.26	6,331.8	73.6	887.7	890.7	0.00	0.00	
6,465.0	8.83	85.26	6,396.0	74.4	897.6	900.7	0.00	0.00	WILLIAMS FORK
6,500.0	8.83	85.26	6,430.6	74.9	903.0	906.1	0.00	0.00	
6,600.0	8.83	85.26	6,529.4	76.2	918.3	921.4	0.00	0.00	
6,700.0	8.83	85.26	6,628.3	77.4	933.6	936.8	0.00	0.00	
6,800.0	8.83	85.26	6,727.1	78.7	948.9	952.1	0.00	0.00	
6,900.0	8.83	85.26	6,825.9	80.0	964.2	967.5	0.00	0.00	
7,000.0	8.83	85.26	6,924.7	81.2	979.5	982.8	0.00	0.00	
7,084.1	8.83	85.26	7,007.8	82.3	992.3	995.8	0.00	0.00	Start 3° Drop
7,100.0	8.35	85.26	7,023.5	82.5	994.7	998.1	3.00	-3.00	
7,200.0	5.35	85.26	7,122.8	83.5	1,006.6	1,010.1	3.00	-3.00	
7,300.0	2.35	85.26	7,222.6	84.0	1,013.3	1,016.8	3.00	-3.00	
7,378.5	0.00	0.00	7,301.0	84.2	1,014.9	1,018.4	3.00	-3.00	EOD @ 0° INC - TOG
7,400.0	0.00	0.00	7,322.5	84.2	1,014.9	1,018.4	0.00	0.00	
7,500.0	0.00	0.00	7,422.5	84.2	1,014.9	1,018.4	0.00	0.00	
7,600.0	0.00	0.00	7,522.5	84.2	1,014.9	1,018.4	0.00	0.00	
7,700.0	0.00	0.00	7,622.5	84.2	1,014.9	1,018.4	0.00	0.00	
7,800.0	0.00	0.00	7,722.5	84.2	1,014.9	1,018.4	0.00	0.00	
7,900.0	0.00	0.00	7,822.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,000.0	0.00	0.00	7,922.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,100.0	0.00	0.00	8,022.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,200.0	0.00	0.00	8,122.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,300.0	0.00	0.00	8,222.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,353.5	0.00	0.00	8,276.0	84.2	1,014.9	1,018.4	0.00	0.00	CAMEO
8,400.0	0.00	0.00	8,322.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,500.0	0.00	0.00	8,422.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,600.0	0.00	0.00	8,522.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,700.0	0.00	0.00	8,622.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,738.5	0.00	0.00	8,661.0	84.2	1,014.9	1,018.4	0.00	0.00	ROLLINS
8,800.0	0.00	0.00	8,722.5	84.2	1,014.9	1,018.4	0.00	0.00	
8,888.5	0.00	0.00	8,811.0	84.2	1,014.9	1,018.4	0.00	0.00	TD @ 8,888.5' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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 14A-1 TGT	0.00	0.00	7,301.0	84.2	1,014.9	607,398.94	1,244,984.19	39.470600	-108.174811
- plan hits target center									
- Point									
PUCKETT 14A-1 BHL	0.00	0.00	8,811.0	84.2	1,014.9	607,398.94	1,244,984.19	39.470600	-108.174811
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,923.5	5,861.0	OHIO CREEK				
6,465.0	6,396.0	WILLIAMS FORK				
7,378.5	7,301.0	TOG				
8,353.5	8,276.0	CAMEO				
8,738.5	8,661.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
450.0	450.0	0.0	0.0	KOP @ 450'	
744.3	743.2	1.9	22.6	EOB @ 8.83° INC	
7,084.1	7,007.8	82.3	992.3	Start 3° Drop	
7,378.5	7,301.0	84.2	1,014.9	EOD @ 0° INC	
8,888.5	8,811.0	84.2	1,014.9	TD @ 8,888.5' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad P2)

PUCKETT 14A-1

DD

Plan #1

Anticollision Report

01 October, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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	8,888.5	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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 H2)						
PUCKETT 13B-1 - DD - Plan #1						Out of range
PUCKETT 13C-1 - DD - Plan #1						Out of range
S2-T7S-R97W (Puckett Pad P2)						
PUCKETT 11A-12 - DD - Plan #1	233.7	233.7	55.1	54.3	70.998	CC, ES
PUCKETT 11A-12 - DD - Plan #1	600.0	590.5	80.1	77.7	32.633	SF
PUCKETT 11B-12 - DD - Plan #1	200.0	200.0	63.3	62.6	101.257	CC, ES
PUCKETT 11B-12 - DD - Plan #1	600.0	586.0	97.4	94.9	38.980	SF
PUCKETT 13D-1 - DD - Plan #1	301.7	301.7	9.8	8.7	9.007	CC, ES
PUCKETT 13D-1 - DD - Plan #1	4,700.0	4,694.7	200.0	168.4	6.330	SF
PUCKETT 14B-1 - DD - Plan #1	501.0	501.2	14.7	12.8	7.498	CC, ES
PUCKETT 14B-1 - DD - Plan #1	5,400.0	5,396.7	197.2	160.6	5.389	SF
PUCKETT 14C-1 - DD - Plan #1	456.0	456.2	31.7	30.0	18.087	CC
PUCKETT 14C-1 - DD - Plan #1	500.0	500.1	31.7	29.8	16.350	ES
PUCKETT 14C-1 - DD - Plan #1	2,800.0	2,793.2	198.1	180.2	11.092	SF
PUCKETT 14D-1 - DD - Plan #1	300.0	300.0	47.8	46.7	44.473	CC
PUCKETT 14D-1 - DD - Plan #1	400.0	399.7	48.1	46.6	31.849	ES
PUCKETT 14D-1 - DD - Plan #1	1,700.0	1,687.4	194.2	184.2	19.391	SF
PUCKETT 24A-1 - DD - Plan #1	409.0	409.1	6.1	4.6	3.945	CC, ES, SF
PUCKETT 24C-1 - DD - Plan #1	413.2	413.4	22.4	20.9	14.305	CC, ES
PUCKETT 24C-1 - DD - Plan #1	500.0	499.6	24.2	22.2	12.231	SF
PUCKETT 24D-1 - DD - Plan #1	362.5	362.7	39.2	37.8	28.803	CC
PUCKETT 24D-1 - DD - Plan #1	400.0	400.0	39.4	37.8	25.615	ES
PUCKETT 24D-1 - DD - Plan #1	600.0	596.6	51.1	48.5	20.090	SF
PUCKETT 43C-2 - DD - Plan #1	255.6	255.6	12.4	11.6	14.223	CC
PUCKETT 43C-2 - DD - Plan #1	300.0	299.9	12.6	11.5	11.707	ES
PUCKETT 43C-2 - DD - Plan #1	400.0	399.2	15.7	14.1	10.299	SF
PUCKETT 43D-2 - DD - Plan #1	300.0	300.0	18.2	17.2	16.966	CC, ES
PUCKETT 43D-2 - DD - Plan #1	500.0	498.4	24.7	22.7	12.442	SF
PUCKETT 44A-2 - DD - Plan #1	355.6	355.6	25.2	23.9	19.047	CC
PUCKETT 44A-2 - DD - Plan #1	400.0	399.8	25.3	23.8	16.672	ES
PUCKETT 44A-2 - DD - Plan #1	500.0	498.5	29.0	27.0	14.765	SF
PUCKETT 44B-2 - DD - Plan #1	300.0	300.0	33.3	32.3	31.022	CC, ES
PUCKETT 44B-2 - DD - Plan #1	500.0	496.7	41.2	39.2	20.954	SF
PUCKETT 44C-2 - DD - Plan #1	255.6	255.6	41.0	40.1	46.840	CC
PUCKETT 44C-2 - DD - Plan #1	300.0	299.5	41.1	40.1	38.512	ES
PUCKETT 44C-2 - DD - Plan #1	500.0	494.3	54.3	52.3	27.579	SF
PUCKETT 44D-2 - DD - Plan #1	200.0	200.0	48.2	47.5	77.090	CC, ES
PUCKETT 44D-2 - DD - Plan #1	500.0	491.4	67.9	65.9	34.183	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-ISWWSA 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	-149.19	-47.3	-28.2	55.1					
100.0	100.0	100.0	100.0	0.1	0.1	-149.19	-47.3	-28.2	55.1	54.9	0.18	314.419		
200.0	200.0	200.0	200.0	0.3	0.3	-149.19	-47.3	-28.2	55.1	54.5	0.62	88.218		
233.7	233.7	233.7	233.7	0.4	0.4	-149.19	-47.3	-28.2	55.1	54.3	0.78	70.998	CC, ES	
300.0	300.0	299.1	299.1	0.5	0.5	-149.71	-47.9	-28.0	55.5	54.5	1.06	52.310		
400.0	400.0	397.1	397.0	0.8	0.7	-153.58	-52.6	-26.1	58.8	57.3	1.49	39.480		
500.0	500.0	494.4	493.7	1.0	1.0	115.08	-61.9	-22.5	66.4	64.4	1.95	33.975		
600.0	599.8	590.5	588.7	1.2	1.3	110.88	-75.5	-17.1	80.1	77.7	2.46	32.633	SF	
700.0	699.3	686.0	682.2	1.4	1.6	108.88	-93.2	-10.0	99.6	96.6	3.02	33.003		
800.0	798.2	783.5	777.5	1.7	2.0	109.27	-112.5	-2.3	121.6	118.0	3.62	33.587		
900.0	897.0	881.0	872.8	2.0	2.5	109.92	-131.8	5.3	143.8	139.5	4.25	33.801		
1,000.0	995.8	978.5	968.1	2.4	2.9	110.41	-151.1	13.0	166.0	161.1	4.91	33.799		
1,100.0	1,094.6	1,076.0	1,063.3	2.7	3.3	110.78	-170.4	20.7	188.2	182.6	5.58	33.708		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-149.72	-54.6	-31.9	63.3								
100.0	100.0	100.0	100.0	0.1	0.1	-149.72	-54.6	-31.9	63.3	63.1	0.18	360.889					
200.0	200.0	200.0	200.0	0.3	0.3	-149.72	-54.6	-31.9	63.3	62.6	0.62	101.257 CC, ES					
300.0	300.0	297.7	297.7	0.5	0.5	-151.34	-57.0	-31.2	65.0	64.0	1.05	61.753					
400.0	400.0	394.9	394.6	0.8	0.7	-155.69	-64.1	-29.0	70.6	69.1	1.50	46.979					
500.0	500.0	491.2	490.0	1.0	1.0	113.50	-75.8	-25.4	80.8	78.8	1.99	40.712					
600.0	599.8	586.0	583.4	1.2	1.3	109.88	-91.8	-20.5	97.4	94.9	2.50	38.980 SF					
700.0	699.3	678.9	673.9	1.4	1.7	108.19	-111.7	-14.3	119.9	116.8	3.06	39.144					
800.0	798.2	773.0	764.7	1.7	2.2	107.99	-135.4	-7.0	147.0	143.3	3.69	39.844					
900.0	897.0	869.1	857.3	2.0	2.7	108.19	-160.0	0.5	174.7	170.4	4.33	40.308					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-ISCWSA 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	-58.97	5.1	-8.5	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	-58.97	5.1	-8.5	9.9	9.7	0.18	56.375		
200.0	200.0	200.0	200.0	0.3	0.3	-58.97	5.1	-8.5	9.9	9.3	0.62	15.817		
300.0	300.0	300.0	300.0	0.5	0.5	-50.40	6.2	-7.5	9.8	8.7	1.08	9.074		
301.7	301.7	301.7	301.7	0.5	0.5	-50.00	6.3	-7.5	9.8	8.7	1.08	9.007 CC, ES		
400.0	400.0	399.7	399.4	0.8	0.8	-16.59	11.2	-3.3	11.7	10.2	1.53	7.629		
500.0	500.0	499.1	498.3	1.0	1.0	-73.10	18.6	4.6	19.1	17.0	2.02	9.440		
600.0	599.8	598.6	596.8	1.2	1.3	-59.42	24.7	17.4	27.0	24.5	2.49	10.851		
700.0	699.3	698.4	695.3	1.4	1.6	-55.98	30.3	32.1	33.2	30.2	3.03	10.969		
800.0	798.2	798.3	793.9	1.7	2.0	-59.22	35.8	46.9	37.0	33.4	3.60	10.281		
900.0	897.0	898.2	892.6	2.0	2.3	-62.52	41.3	61.6	40.7	36.5	4.21	9.663		
1,000.0	995.8	998.1	991.3	2.4	2.7	-65.27	46.9	76.4	44.5	39.6	4.86	9.157		
1,100.0	1,094.6	1,098.0	1,089.9	2.7	3.1	-67.59	52.4	91.1	48.4	42.8	5.53	8.748		
1,200.0	1,193.4	1,198.0	1,188.6	3.0	3.4	-69.55	57.9	105.9	52.3	46.1	6.22	8.416		
1,300.0	1,292.3	1,297.9	1,287.2	3.4	3.8	-71.24	63.5	120.6	56.3	49.4	6.91	8.144		
1,400.0	1,391.1	1,397.8	1,385.9	3.7	4.1	-72.71	69.0	135.4	60.4	52.7	7.62	7.919		
1,500.0	1,489.9	1,497.7	1,484.6	4.1	4.5	-73.99	74.5	150.1	64.4	56.1	8.33	7.732		
1,600.0	1,588.7	1,597.6	1,583.2	4.4	4.9	-75.12	80.1	164.9	68.5	59.5	9.05	7.573		
1,700.0	1,687.5	1,697.5	1,681.9	4.8	5.2	-76.12	85.6	179.6	72.7	62.9	9.77	7.438		
1,800.0	1,786.3	1,797.4	1,780.5	5.2	5.6	-77.01	91.1	194.4	76.8	66.3	10.49	7.322		
1,900.0	1,885.1	1,897.3	1,879.2	5.5	6.0	-77.81	96.7	209.1	81.0	69.7	11.21	7.221		
2,000.0	1,984.0	1,997.2	1,977.8	5.9	6.3	-78.53	102.2	223.9	85.1	73.2	11.94	7.132		
2,100.0	2,082.8	2,097.1	2,076.5	6.2	6.7	-79.18	107.8	238.6	89.3	76.7	12.66	7.054		
2,200.0	2,181.6	2,197.0	2,175.2	6.6	7.1	-79.78	113.3	253.4	93.5	80.1	13.39	6.985		
2,300.0	2,280.4	2,296.9	2,273.8	7.0	7.4	-80.33	118.8	268.1	97.7	83.6	14.12	6.924		
2,400.0	2,379.2	2,396.8	2,372.5	7.3	7.8	-80.82	124.4	282.8	101.9	87.1	14.84	6.868		
2,500.0	2,478.0	2,496.7	2,471.1	7.7	8.2	-81.28	129.9	297.6	106.2	90.6	15.57	6.819		
2,600.0	2,576.8	2,596.7	2,569.8	8.0	8.6	-81.71	135.4	312.3	110.4	94.1	16.30	6.774		
2,700.0	2,675.7	2,696.6	2,668.4	8.4	8.9	-82.10	141.0	327.1	114.6	97.6	17.03	6.733		
2,800.0	2,774.5	2,796.5	2,767.1	8.8	9.3	-82.47	146.5	341.8	118.9	101.1	17.76	6.695		
2,900.0	2,873.3	2,896.4	2,865.8	9.1	9.7	-82.81	152.0	356.6	123.1	104.6	18.48	6.661		
3,000.0	2,972.1	2,996.3	2,964.4	9.5	10.0	-83.13	157.6	371.3	127.4	108.2	19.21	6.630		
3,100.0	3,070.9	3,096.2	3,063.1	9.9	10.4	-83.42	163.1	386.1	131.6	111.7	19.94	6.601		
3,200.0	3,169.7	3,196.1	3,161.7	10.2	10.8	-83.70	168.6	400.8	135.9	115.2	20.67	6.574		
3,300.0	3,268.6	3,296.0	3,260.4	10.6	11.1	-83.96	174.2	415.6	140.1	118.7	21.40	6.549		
3,400.0	3,367.4	3,395.9	3,359.0	10.9	11.5	-84.21	179.7	430.3	144.4	122.3	22.13	6.526		
3,500.0	3,466.2	3,495.8	3,457.7	11.3	11.9	-84.44	185.3	445.1	148.7	125.8	22.85	6.505		
3,600.0	3,565.0	3,595.7	3,556.4	11.7	12.2	-84.66	190.8	459.8	152.9	129.3	23.58	6.485		
3,700.0	3,663.8	3,695.6	3,655.0	12.0	12.6	-84.87	196.3	474.6	157.2	132.9	24.31	6.466		
3,800.0	3,762.6	3,795.5	3,753.7	12.4	13.0	-85.06	201.9	489.3	161.5	136.4	25.04	6.449		
3,900.0	3,861.4	3,895.4	3,852.3	12.8	13.3	-85.25	207.4	504.1	165.7	140.0	25.77	6.432		
4,000.0	3,960.3	3,995.4	3,951.0	13.1	13.7	-85.43	212.9	518.8	170.0	143.5	26.50	6.417		
4,100.0	4,059.1	4,095.3	4,049.7	13.5	14.1	-85.59	218.5	533.6	174.3	147.1	27.22	6.402		
4,200.0	4,157.9	4,195.2	4,148.3	13.9	14.4	-85.75	224.0	548.3	178.6	150.6	27.95	6.389		
4,300.0	4,256.7	4,295.1	4,247.0	14.2	14.8	-85.91	229.5	563.0	182.8	154.2	28.68	6.376		
4,400.0	4,355.5	4,395.0	4,345.6	14.6	15.2	-86.05	235.1	577.8	187.1	157.7	29.41	6.363		
4,500.0	4,454.3	4,494.9	4,444.3	14.9	15.5	-86.19	240.6	592.5	191.4	161.3	30.13	6.352		
4,600.0	4,553.1	4,594.8	4,542.9	15.3	15.9	-86.32	246.1	607.3	195.7	164.8	30.86	6.341		
4,700.0	4,652.0	4,694.7	4,641.6	15.7	16.3	-86.45	251.7	622.0	200.0	168.4	31.59	6.330 SF		

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

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14B-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	-149.82	-13.1	-7.6	15.2					
100.0	100.0	100.0	100.0	0.1	0.1	-149.82	-13.1	-7.6	15.2	15.0	0.18	86.488		
200.0	200.0	200.0	200.0	0.3	0.3	-149.82	-13.1	-7.6	15.2	14.5	0.62	24.266		
300.0	300.0	300.0	300.0	0.5	0.5	-149.82	-13.1	-7.6	15.2	14.1	1.07	14.113		
400.0	400.0	400.0	400.0	0.8	0.8	-149.82	-13.1	-7.6	15.2	13.6	1.52	9.950		
500.0	500.0	500.2	500.2	1.0	1.0	117.44	-13.5	-5.0	14.7	12.8	1.96	7.522		
501.0	501.0	501.2	501.2	1.0	1.0	117.33	-13.5	-5.0	14.7	12.8	1.96	7.498 CC, ES		
600.0	599.8	600.3	599.9	1.2	1.2	106.30	-14.8	2.7	15.6	13.2	2.39	6.514		
700.0	699.3	700.2	698.9	1.4	1.5	96.64	-16.9	15.6	18.2	15.4	2.90	6.301		
800.0	798.2	800.1	797.6	1.7	1.8	94.17	-19.4	31.2	22.0	18.5	3.49	6.310		
900.0	897.0	900.0	896.3	2.0	2.1	93.58	-21.9	46.8	25.8	21.7	4.13	6.253		
1,000.0	995.8	999.9	994.9	2.4	2.4	93.15	-24.5	62.3	29.6	24.8	4.79	6.177		
1,100.0	1,094.6	1,099.9	1,093.6	2.7	2.8	92.82	-27.0	77.9	33.4	27.9	5.48	6.101		
1,200.0	1,193.4	1,199.8	1,192.3	3.0	3.1	92.55	-29.5	93.5	37.2	31.0	6.17	6.031		
1,300.0	1,292.3	1,299.7	1,291.0	3.4	3.5	92.33	-32.1	109.1	41.0	34.1	6.87	5.969		
1,400.0	1,391.1	1,399.6	1,389.6	3.7	3.9	92.15	-34.6	124.6	44.8	37.2	7.58	5.913		
1,500.0	1,489.9	1,499.6	1,488.3	4.1	4.2	92.00	-37.1	140.2	48.6	40.3	8.29	5.865		
1,600.0	1,588.7	1,599.5	1,587.0	4.4	4.6	91.87	-39.6	155.8	52.4	43.4	9.01	5.822		
1,700.0	1,687.5	1,699.4	1,685.7	4.8	5.0	91.76	-42.2	171.4	56.3	46.5	9.73	5.784		
1,800.0	1,786.3	1,799.4	1,784.3	5.2	5.3	91.66	-44.7	186.9	60.1	49.6	10.45	5.750		
1,900.0	1,885.1	1,899.3	1,883.0	5.5	5.7	91.57	-47.2	202.5	63.9	52.7	11.17	5.720		
2,000.0	1,984.0	1,999.2	1,981.7	5.9	6.1	91.50	-49.8	218.1	67.7	55.8	11.89	5.693		
2,100.0	2,082.8	2,099.1	2,080.4	6.2	6.4	91.43	-52.3	233.7	71.5	58.9	12.61	5.669		
2,200.0	2,181.6	2,199.1	2,179.0	6.6	6.8	91.37	-54.8	249.2	75.3	62.0	13.34	5.647		
2,300.0	2,280.4	2,299.0	2,277.7	7.0	7.2	91.31	-57.3	264.8	79.1	65.1	14.06	5.627		
2,400.0	2,379.2	2,398.9	2,376.4	7.3	7.5	91.26	-59.9	280.4	82.9	68.1	14.79	5.608		
2,500.0	2,478.0	2,498.8	2,475.0	7.7	7.9	91.22	-62.4	296.0	86.7	71.2	15.51	5.592		
2,600.0	2,576.8	2,598.8	2,573.7	8.0	8.3	91.17	-64.9	311.5	90.5	74.3	16.24	5.576		
2,700.0	2,675.7	2,698.7	2,672.4	8.4	8.7	91.14	-67.5	327.1	94.4	77.4	16.96	5.562		
2,800.0	2,774.5	2,798.6	2,771.1	8.8	9.0	91.10	-70.0	342.7	98.2	80.5	17.69	5.549		
2,900.0	2,873.3	2,898.6	2,869.7	9.1	9.4	91.07	-72.5	358.3	102.0	83.6	18.42	5.537		
3,000.0	2,972.1	2,998.5	2,968.4	9.5	9.8	91.04	-75.0	373.8	105.8	86.6	19.14	5.526		
3,100.0	3,070.9	3,098.4	3,067.1	9.9	10.1	91.01	-77.6	389.4	109.6	89.7	19.87	5.515		
3,200.0	3,169.7	3,198.3	3,165.8	10.2	10.5	90.98	-80.1	405.0	113.4	92.8	20.60	5.506		
3,300.0	3,268.6	3,298.3	3,264.4	10.6	10.9	90.96	-82.6	420.6	117.2	95.9	21.33	5.497		
3,400.0	3,367.4	3,398.2	3,363.1	10.9	11.3	90.93	-85.2	436.1	121.0	99.0	22.05	5.488		
3,500.0	3,466.2	3,498.1	3,461.8	11.3	11.6	90.91	-87.7	451.7	124.8	102.1	22.78	5.480		
3,600.0	3,565.0	3,598.0	3,560.5	11.7	12.0	90.89	-90.2	467.3	128.6	105.1	23.51	5.473		
3,700.0	3,663.8	3,698.0	3,659.1	12.0	12.4	90.87	-92.8	482.9	132.5	108.2	24.24	5.465		
3,800.0	3,762.6	3,797.9	3,757.8	12.4	12.7	90.85	-95.3	498.4	136.3	111.3	24.96	5.459		
3,900.0	3,861.4	3,897.8	3,856.5	12.8	13.1	90.83	-97.8	514.0	140.1	114.4	25.69	5.453		
4,000.0	3,960.3	3,997.8	3,955.2	13.1	13.5	90.82	-100.3	529.6	143.9	117.5	26.42	5.447		
4,100.0	4,059.1	4,097.7	4,053.8	13.5	13.9	90.80	-102.9	545.2	147.7	120.6	27.15	5.441		
4,200.0	4,157.9	4,197.6	4,152.5	13.9	14.2	90.79	-105.4	560.7	151.5	123.6	27.87	5.436		
4,300.0	4,256.7	4,297.5	4,251.2	14.2	14.6	90.77	-107.9	576.3	155.3	126.7	28.60	5.431		
4,400.0	4,355.5	4,397.5	4,349.8	14.6	15.0	90.76	-110.5	591.9	159.1	129.8	29.33	5.426		
4,500.0	4,454.3	4,497.4	4,448.5	14.9	15.3	90.75	-113.0	607.5	162.9	132.9	30.06	5.421		
4,600.0	4,553.1	4,597.3	4,547.2	15.3	15.7	90.74	-115.5	623.0	166.8	136.0	30.78	5.417		
4,700.0	4,652.0	4,697.3	4,645.9	15.7	16.1	90.72	-118.0	638.6	170.6	139.1	31.51	5.413		
4,800.0	4,750.8	4,797.2	4,744.5	16.0	16.5	90.71	-120.6	654.2	174.4	142.1	32.24	5.409		
4,900.0	4,849.6	4,897.1	4,843.2	16.4	16.8	90.70	-123.1	669.8	178.2	145.2	32.97	5.405		
5,000.0	4,948.4	4,997.0	4,941.9	16.8	17.2	90.69	-125.6	685.3	182.0	148.3	33.69	5.402		

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

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14B-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
5,100.0	5,047.2	5,097.0	5,040.6	17.1	17.6	90.68	-128.2	700.9	185.8	151.4	34.42		5.398
5,200.0	5,146.0	5,196.9	5,139.2	17.5	18.0	90.67	-130.7	716.5	189.6	154.5	35.15		5.395
5,300.0	5,244.9	5,296.8	5,237.9	17.9	18.3	90.66	-133.2	732.1	193.4	157.5	35.87	5.392	
5,400.0	5,343.7	5,396.7	5,336.6	18.2	18.7	90.66	-135.7	747.6	197.2	160.6	36.60	5.389 SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-149.06	-27.3	-16.4	31.8					
100.0	100.0	100.0	100.0	0.1	0.1	-149.06	-27.3	-16.4	31.8	31.7	0.18	181.640		
200.0	200.0	200.0	200.0	0.3	0.3	-149.06	-27.3	-16.4	31.8	31.2	0.62	50.964		
300.0	300.0	300.0	300.0	0.5	0.5	-149.06	-27.3	-16.4	31.8	30.8	1.07	29.640		
400.0	400.0	400.1	400.1	0.8	0.8	-150.23	-27.6	-15.8	31.7	30.2	1.52	20.935		
456.0	456.0	456.2	456.2	0.9	0.9	121.01	-28.4	-13.6	31.7	30.0	1.75	18.087 CC		
500.0	500.0	500.1	500.0	1.0	1.0	116.08	-29.5	-10.9	31.7	29.8	1.94	16.350 ES		
600.0	599.8	599.8	599.0	1.2	1.2	106.45	-33.4	-1.2	34.6	32.2	2.40	14.423		
700.0	699.3	699.2	697.2	1.4	1.5	99.00	-39.1	12.9	40.7	37.7	2.93	13.858		
800.0	798.2	798.9	795.6	1.7	1.8	97.38	-45.3	28.4	48.1	44.5	3.54	13.563		
900.0	897.0	898.6	893.9	2.0	2.2	96.79	-51.6	43.8	55.6	51.4	4.20	13.236		
1,000.0	995.8	998.3	992.2	2.4	2.6	96.34	-57.8	59.3	63.0	58.2	4.87	12.934		
1,100.0	1,094.6	1,098.0	1,090.5	2.7	2.9	95.98	-64.0	74.7	70.5	65.0	5.57	12.671		
1,200.0	1,193.4	1,197.7	1,188.8	3.0	3.3	95.69	-70.2	90.2	78.0	71.8	6.27	12.447		
1,300.0	1,292.3	1,297.5	1,287.2	3.4	3.7	95.46	-76.4	105.6	85.5	78.6	6.98	12.257		
1,400.0	1,391.1	1,397.2	1,385.5	3.7	4.1	95.26	-82.7	121.0	93.0	85.3	7.69	12.093		
1,500.0	1,489.9	1,496.9	1,483.8	4.1	4.4	95.09	-88.9	136.5	100.5	92.1	8.41	11.953		
1,600.0	1,588.7	1,596.6	1,582.1	4.4	4.8	94.95	-95.1	151.9	108.0	98.9	9.13	11.832		
1,700.0	1,687.5	1,696.3	1,680.4	4.8	5.2	94.82	-101.3	167.4	115.5	105.7	9.85	11.725		
1,800.0	1,786.3	1,796.0	1,778.7	5.2	5.6	94.71	-107.6	182.8	123.1	112.5	10.58	11.632		
1,900.0	1,885.1	1,895.8	1,877.1	5.5	6.0	94.61	-113.8	198.3	130.6	119.3	11.30	11.549		
2,000.0	1,984.0	1,995.5	1,975.4	5.9	6.4	94.52	-120.0	213.7	138.1	126.0	12.03	11.476		
2,100.0	2,082.8	2,095.2	2,073.7	6.2	6.7	94.44	-126.2	229.1	145.6	132.8	12.76	11.410		
2,200.0	2,181.6	2,194.9	2,172.0	6.6	7.1	94.37	-132.4	244.6	153.1	139.6	13.49	11.351		
2,300.0	2,280.4	2,294.6	2,270.3	7.0	7.5	94.31	-138.7	260.0	160.6	146.4	14.21	11.297		
2,400.0	2,379.2	2,394.4	2,368.7	7.3	7.9	94.25	-144.9	275.5	168.1	153.1	14.94	11.249		
2,500.0	2,478.0	2,494.1	2,467.0	7.7	8.3	94.20	-151.1	290.9	175.6	159.9	15.67	11.204		
2,600.0	2,576.8	2,593.8	2,565.3	8.0	8.7	94.15	-157.3	306.4	183.1	166.7	16.40	11.164		
2,700.0	2,675.7	2,693.5	2,663.6	8.4	9.1	94.10	-163.5	321.8	190.6	173.5	17.13	11.127		
2,800.0	2,774.5	2,793.2	2,761.9	8.8	9.4	94.06	-169.8	337.2	198.1	180.2	17.86	11.092 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-149.46	-41.2	-24.3	47.8					
100.0	100.0	100.0	100.0	0.1	0.1	-149.46	-41.2	-24.3	47.8	47.6	0.18	272.542		
200.0	200.0	200.0	200.0	0.3	0.3	-149.46	-41.2	-24.3	47.8	47.2	0.62	76.469		
300.0	300.0	300.0	300.0	0.5	0.5	-149.46	-41.2	-24.3	47.8	46.7	1.07	44.473 CC		
400.0	400.0	399.7	399.6	0.8	0.7	-152.55	-42.7	-22.2	48.1	46.6	1.51	31.849 ES		
500.0	500.0	498.8	498.5	1.0	1.0	114.00	-47.2	-15.9	50.1	48.2	1.94	25.788		
600.0	599.8	597.4	596.2	1.2	1.2	106.15	-54.8	-5.6	56.6	54.1	2.43	23.298		
700.0	699.3	695.5	692.7	1.4	1.6	100.52	-65.1	8.6	67.2	64.3	2.99	22.521		
800.0	798.2	794.7	790.0	1.7	1.9	98.70	-76.5	24.2	79.8	76.2	3.61	22.089		
900.0	897.0	893.9	887.3	2.0	2.3	97.81	-87.9	39.8	92.5	88.2	4.28	21.612		
1,000.0	995.8	993.1	984.6	2.4	2.8	97.13	-99.3	55.4	105.2	100.2	4.97	21.167		
1,100.0	1,094.6	1,092.3	1,081.9	2.7	3.2	96.61	-110.6	71.0	117.9	112.2	5.67	20.781		
1,200.0	1,193.4	1,191.5	1,179.2	3.0	3.6	96.18	-122.0	86.6	130.6	124.2	6.39	20.451		
1,300.0	1,292.3	1,290.6	1,276.5	3.4	4.0	95.83	-133.4	102.2	143.3	136.2	7.10	20.170		
1,400.0	1,391.1	1,389.8	1,373.7	3.7	4.4	95.54	-144.8	117.8	156.0	148.2	7.83	19.931		
1,500.0	1,489.9	1,489.0	1,471.0	4.1	4.9	95.29	-156.2	133.4	168.7	160.2	8.56	19.725		
1,600.0	1,588.7	1,588.2	1,568.3	4.4	5.3	95.07	-167.5	149.1	181.5	172.2	9.28	19.546		
1,700.0	1,687.5	1,687.4	1,665.6	4.8	5.7	94.89	-178.9	164.7	194.2	184.2	10.02	19.391 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-147.80	-5.8	-3.7	6.9					
100.0	100.0	100.0	100.0	0.1	0.1	-147.80	-5.8	-3.7	6.9	6.7	0.18	39.283		
200.0	200.0	200.0	200.0	0.3	0.3	-147.80	-5.8	-3.7	6.9	6.3	0.62	11.022		
300.0	300.0	300.0	300.0	0.5	0.5	-147.80	-5.8	-3.7	6.9	5.8	1.07	6.410		
400.0	400.0	400.1	400.0	0.8	0.8	-170.08	-6.1	-1.1	6.1	4.6	1.52	4.051		
409.0	409.0	409.1	409.0	0.8	0.8	100.16	-6.1	-0.6	6.1	4.6	1.55	3.945 CC, ES, SF		
500.0	500.0	499.7	499.3	1.0	1.0	52.89	-6.7	6.7	9.1	7.2	1.96	4.652		
600.0	599.8	598.9	597.6	1.2	1.3	34.58	-7.5	19.6	16.0	13.6	2.45	6.523		
700.0	699.3	697.7	694.8	1.4	1.6	27.76	-7.8	37.4	23.5	20.5	3.00	7.842		
800.0	798.2	796.0	790.5	1.7	2.0	23.87	-7.9	60.2	31.9	28.3	3.52	9.045		
900.0	897.0	893.3	883.9	2.0	2.5	19.58	-7.6	87.5	44.6	40.6	4.03	11.083		
1,000.0	995.8	989.2	974.5	2.4	3.1	15.92	-6.9	119.0	62.3	57.8	4.55	13.708		
1,100.0	1,094.6	1,087.2	1,066.2	2.7	3.8	13.46	-6.1	153.3	82.4	77.4	5.08	16.239		
1,200.0	1,193.4	1,185.1	1,157.9	3.0	4.4	11.97	-5.4	187.6	102.6	97.0	5.61	18.303		
1,300.0	1,292.3	1,283.0	1,249.6	3.4	5.1	10.97	-4.6	221.9	122.8	116.7	6.15	19.980		
1,400.0	1,391.1	1,380.9	1,341.3	3.7	5.8	10.25	-3.8	256.3	143.1	136.4	6.70	21.366		
1,500.0	1,489.9	1,478.8	1,433.0	4.1	6.5	9.70	-3.0	290.6	163.3	156.1	7.25	22.528		
1,600.0	1,588.7	1,576.7	1,524.7	4.4	7.2	9.28	-2.2	324.9	183.6	175.8	7.81	23.515		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-148.19	-20.0	-12.4	23.6					
100.0	100.0	100.0	100.0	0.1	0.1	-148.19	-20.0	-12.4	23.6	23.4	0.18	134.427		
200.0	200.0	200.0	200.0	0.3	0.3	-148.19	-20.0	-12.4	23.6	22.9	0.62	37.717		
300.0	300.0	300.2	300.2	0.5	0.5	-149.73	-20.2	-11.8	23.4	22.3	1.07	21.871		
400.0	400.0	400.3	400.1	0.8	0.7	-162.68	-21.4	-6.7	22.5	20.9	1.52	14.807		
413.2	413.2	413.4	413.2	0.8	0.8	109.36	-21.7	-5.6	22.4	20.9	1.57	14.305 CC, ES		
500.0	500.0	499.6	498.9	1.0	1.0	88.16	-23.9	3.4	24.2	22.2	1.98	12.231 SF		
600.0	599.8	598.3	596.4	1.2	1.3	70.40	-27.6	18.3	30.9	28.5	2.47	12.507		
700.0	699.3	696.4	692.3	1.4	1.7	61.11	-32.5	38.0	40.8	37.8	3.03	13.446		
800.0	798.2	793.8	786.4	1.7	2.2	56.16	-38.4	62.2	52.8	49.2	3.64	14.510		
900.0	897.0	889.8	877.9	2.0	2.7	51.16	-45.5	90.7	69.0	64.7	4.25	16.223		
1,000.0	995.8	985.2	967.2	2.4	3.4	46.56	-53.5	123.1	89.5	84.7	4.86	18.428		
1,100.0	1,094.6	1,082.6	1,058.0	2.7	4.1	43.35	-61.9	157.3	111.6	106.1	5.46	20.440		
1,200.0	1,193.4	1,180.0	1,148.8	3.0	4.8	41.19	-70.3	191.5	133.8	127.8	6.05	22.104		
1,300.0	1,292.3	1,277.4	1,239.6	3.4	5.5	39.65	-78.8	225.6	156.2	149.5	6.66	23.452		
1,400.0	1,391.1	1,374.7	1,330.4	3.7	6.2	38.50	-87.2	259.8	178.7	171.4	7.27	24.577		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-149.30	-34.2	-20.3	39.8					
100.0	100.0	100.0	100.0	0.1	0.1	-149.30	-34.2	-20.3	39.8	39.6	0.18	227.090		
200.0	200.0	200.0	200.0	0.3	0.3	-149.30	-34.2	-20.3	39.8	39.2	0.62	63.716		
300.0	300.0	300.3	300.2	0.5	0.5	-153.07	-35.2	-17.9	39.4	38.4	1.07	36.913		
362.5	362.5	362.7	362.5	0.7	0.7	-159.32	-36.7	-13.8	39.2	37.8	1.36	28.803 CC		
400.0	400.0	400.0	399.6	0.8	0.8	-164.47	-37.9	-10.5	39.4	37.8	1.54	25.615 ES		
500.0	500.0	498.7	497.5	1.0	1.0	93.53	-42.5	1.5	42.6	40.6	2.02	21.113		
600.0	599.8	596.6	593.8	1.2	1.4	80.32	-48.7	18.1	51.1	48.5	2.54	20.090 SF		
700.0	699.3	693.7	688.2	1.4	1.8	72.18	-56.6	39.0	63.3	60.2	3.12	20.264		
800.0	798.2	789.9	780.5	1.7	2.4	67.34	-66.1	64.2	78.3	74.5	3.77	20.770		
900.0	897.0	884.4	869.9	2.0	3.0	62.68	-77.1	93.2	97.3	92.9	4.44	21.946		
1,000.0	995.8	980.5	959.5	2.4	3.6	58.51	-89.4	125.7	119.8	114.7	5.10	23.503		
1,100.0	1,094.6	1,077.6	1,049.9	2.7	4.3	55.59	-101.8	158.7	142.7	137.0	5.75	24.824		
1,200.0	1,193.4	1,174.7	1,140.4	3.0	5.1	53.48	-114.3	191.7	166.0	159.6	6.40	25.935		
1,300.0	1,292.3	1,271.8	1,230.9	3.4	5.8	51.88	-126.7	224.6	189.4	182.3	7.05	26.849		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-93.36	-0.7	-12.4	12.4				
100.0	100.0	100.0	100.0	0.1	0.1	-93.36	-0.7	-12.4	12.4	12.3	0.18	70.974	
200.0	200.0	200.0	200.0	0.3	0.3	-93.36	-0.7	-12.4	12.4	11.8	0.62	19.914	
255.6	255.6	255.6	255.6	0.4	0.4	-93.36	-0.7	-12.4	12.4	11.6	0.87	14.223 CC	
300.0	300.0	299.9	299.9	0.5	0.5	-92.85	-0.6	-12.5	12.6	11.5	1.07	11.707 ES	
400.0	400.0	399.2	399.1	0.8	0.8	-83.17	1.9	-15.5	15.7	14.1	1.52	10.299 SF	
500.0	500.0	497.9	497.4	1.0	1.0	-157.08	7.6	-22.4	24.4	22.4	2.01	12.123	
600.0	599.8	594.8	593.3	1.2	1.3	-152.60	16.4	-32.9	42.4	39.8	2.57	16.516	
700.0	699.3	691.7	689.0	1.4	1.6	-152.26	26.4	-44.9	67.0	63.8	3.12	21.482	
800.0	798.2	787.6	783.6	1.7	1.9	-153.37	36.3	-56.8	95.3	91.7	3.61	26.395	
900.0	897.0	883.3	878.1	2.0	2.3	-154.18	46.2	-68.7	124.1	120.0	4.07	30.497	
1,000.0	995.8	979.1	972.6	2.4	2.6	-154.68	56.2	-80.6	152.9	148.4	4.54	33.665	
1,100.0	1,094.6	1,074.8	1,067.0	2.7	3.0	-155.03	66.1	-92.5	181.8	176.7	5.03	36.166	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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	-116.06	-8.0	-16.4	18.2					
100.0	100.0	100.0	100.0	0.1	0.1	-116.06	-8.0	-16.4	18.2	18.1	0.18	103.969		
200.0	200.0	200.0	200.0	0.3	0.3	-116.06	-8.0	-16.4	18.2	17.6	0.62	29.171		
300.0	300.0	300.0	300.0	0.5	0.5	-116.06	-8.0	-16.4	18.2	17.2	1.07	16.966 CC, ES		
400.0	400.0	399.5	399.5	0.8	0.8	-112.70	-7.4	-17.7	19.2	17.7	1.52	12.630		
500.0	500.0	498.4	498.2	1.0	1.0	173.54	-4.7	-23.5	24.7	22.7	1.99	12.442 SF		
600.0	599.8	595.8	594.9	1.2	1.2	-175.95	0.0	-33.8	40.0	37.4	2.55	15.684		
700.0	699.3	693.1	691.3	1.4	1.5	-171.21	5.5	-45.8	62.8	59.7	3.11	20.193		
800.0	798.2	789.3	786.6	1.7	1.8	-169.53	11.0	-57.7	90.0	86.4	3.59	25.054		
900.0	897.0	885.4	881.8	2.0	2.1	-168.71	16.4	-69.6	117.7	113.7	4.03	29.232		
1,000.0	995.8	981.4	976.9	2.4	2.4	-168.20	21.9	-81.5	145.4	140.9	4.48	32.497		
1,100.0	1,094.6	1,077.5	1,072.1	2.7	2.8	-167.86	27.4	-93.4	173.2	168.2	4.93	35.096		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-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	-126.30	-14.9	-20.3	25.2					
100.0	100.0	100.0	100.0	0.1	0.1	-126.30	-14.9	-20.3	25.2	25.0	0.18	143.867		
200.0	200.0	200.0	200.0	0.3	0.3	-126.30	-14.9	-20.3	25.2	24.6	0.62	40.366		
300.0	300.0	300.0	300.0	0.5	0.5	-126.30	-14.9	-20.3	25.2	24.1	1.07	23.476		
355.6	355.6	355.6	355.6	0.7	0.7	-126.30	-14.9	-20.3	25.2	23.9	1.32	19.047 CC		
400.0	400.0	399.8	399.8	0.8	0.8	-126.07	-14.9	-20.5	25.3	23.8	1.52	16.672 ES		
500.0	500.0	498.5	498.5	1.0	1.0	154.23	-14.6	-24.3	29.0	27.0	1.96	14.765 SF		
600.0	599.8	596.0	595.5	1.2	1.2	164.21	-14.0	-33.1	41.7	39.3	2.50	16.723		
700.0	699.3	693.0	691.8	1.4	1.5	171.32	-13.0	-45.0	63.4	60.3	3.08	20.589		
800.0	798.2	789.3	787.3	1.7	1.7	175.11	-12.1	-56.9	89.9	86.3	3.57	25.215		
900.0	897.0	885.5	882.7	2.0	2.0	177.21	-11.2	-68.9	117.1	113.1	4.00	29.307		
1,000.0	995.8	981.6	978.2	2.4	2.3	178.52	-10.3	-80.8	144.4	139.9	4.44	32.541		
1,100.0	1,094.6	1,077.8	1,073.6	2.7	2.6	179.42	-9.4	-92.7	171.7	166.8	4.89	35.136		
1,200.0	1,193.4	1,174.0	1,169.0	3.0	2.9	-179.94	-8.5	-104.6	199.1	193.7	5.34	37.254		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	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			
0.0	0.0	0.0	0.0	0.0	0.0	-131.81	-22.2	-24.8	33.3					
100.0	100.0	100.0	100.0	0.1	0.1	-131.81	-22.2	-24.8	33.3	33.2	0.18	190.107		
200.0	200.0	200.0	200.0	0.3	0.3	-131.81	-22.2	-24.8	33.3	32.7	0.62	53.339		
300.0	300.0	300.0	300.0	0.5	0.5	-131.81	-22.2	-24.8	33.3	32.3	1.07	31.022 CC, ES		
400.0	400.0	398.8	398.8	0.8	0.7	-130.82	-22.6	-26.2	34.7	33.1	1.51	22.954		
500.0	500.0	496.7	496.5	1.0	1.0	147.91	-24.5	-32.2	41.2	39.2	1.96	20.954 SF		
600.0	599.8	593.6	592.8	1.2	1.2	154.27	-27.7	-42.7	56.6	54.1	2.51	22.606		
700.0	699.3	691.0	689.3	1.4	1.5	159.44	-31.4	-54.6	78.8	75.7	3.06	25.720		
800.0	798.2	787.2	784.7	1.7	1.8	163.11	-35.1	-66.4	105.4	101.8	3.56	29.622		
900.0	897.0	883.3	880.0	2.0	2.1	165.43	-38.7	-78.2	132.7	128.7	4.00	33.173		
1,000.0	995.8	979.3	975.3	2.4	2.4	166.96	-42.3	-89.9	160.1	155.7	4.45	35.967		
1,100.0	1,094.6	1,075.4	1,070.6	2.7	2.7	168.04	-46.0	-101.7	187.7	182.8	4.91	38.200		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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			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	-135.34	-29.1	-28.8	41.0					
100.0	100.0	100.0	100.0	0.1	0.1	-135.34	-29.1	-28.8	41.0	40.8	0.18	233.669		
200.0	200.0	200.0	200.0	0.3	0.3	-135.34	-29.1	-28.8	41.0	40.3	0.62	65.562		
255.6	255.6	255.6	255.6	0.4	0.4	-135.34	-29.1	-28.8	41.0	40.1	0.87	46.840 CC		
300.0	300.0	299.5	299.5	0.5	0.5	-135.30	-29.2	-28.9	41.1	40.1	1.07	38.512 ES		
400.0	400.0	397.2	397.2	0.8	0.7	-134.44	-31.4	-32.0	44.9	43.4	1.49	30.194		
500.0	500.0	494.3	493.8	1.0	1.0	142.13	-36.4	-39.1	54.3	52.3	1.97	27.579 SF		
600.0	599.8	590.6	589.2	1.2	1.2	145.74	-43.9	-49.9	72.1	69.6	2.51	28.723		
700.0	699.3	687.6	685.2	1.4	1.5	149.47	-52.2	-61.6	95.6	92.5	3.06	31.218		
800.0	798.2	783.5	780.0	1.7	1.9	152.78	-60.3	-73.2	123.1	119.6	3.57	34.487		
900.0	897.0	879.3	874.7	2.0	2.2	155.08	-68.4	-84.8	151.4	147.4	4.04	37.487		
1,000.0	995.8	975.1	969.5	2.4	2.5	156.65	-76.6	-96.4	179.9	175.3	4.52	39.808		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44D-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	-137.17	-35.3	-32.7	48.2					
100.0	100.0	100.0	100.0	0.1	0.1	-137.17	-35.3	-32.7	48.2	48.0	0.18	274.758		
200.0	200.0	200.0	200.0	0.3	0.3	-137.17	-35.3	-32.7	48.2	47.5	0.62	77.090 CC, ES		
300.0	300.0	298.1	298.1	0.5	0.5	-137.18	-36.4	-33.7	49.6	48.6	1.05	47.032		
400.0	400.0	395.2	395.0	0.8	0.7	-137.24	-40.9	-37.9	56.0	54.5	1.49	37.646		
500.0	500.0	491.4	490.6	1.0	1.0	137.66	-49.0	-45.2	67.9	65.9	1.99	34.183 SF		
600.0	599.8	586.3	584.2	1.2	1.3	139.38	-60.5	-55.6	88.0	85.4	2.53	34.802		
700.0	699.3	682.8	679.1	1.4	1.6	141.92	-73.2	-67.2	113.7	110.6	3.08	36.900		
800.0	798.2	778.2	773.0	1.7	2.0	144.68	-85.7	-78.6	143.0	139.4	3.60	39.690		
900.0	897.0	873.4	866.7	2.0	2.4	146.76	-98.2	-90.0	173.1	169.0	4.10	42.201		

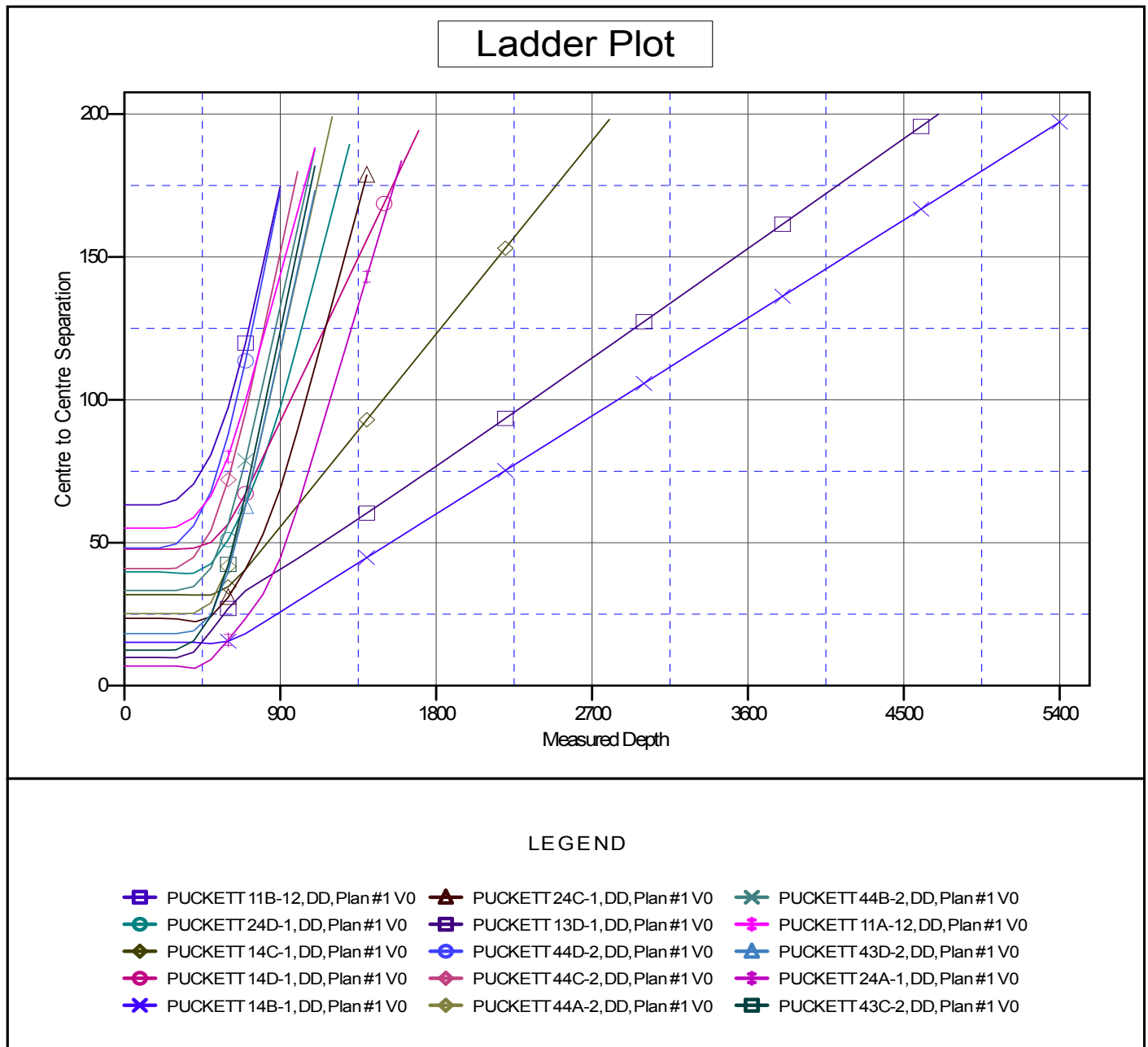
Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 14A-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 14A-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	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 14A-1
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