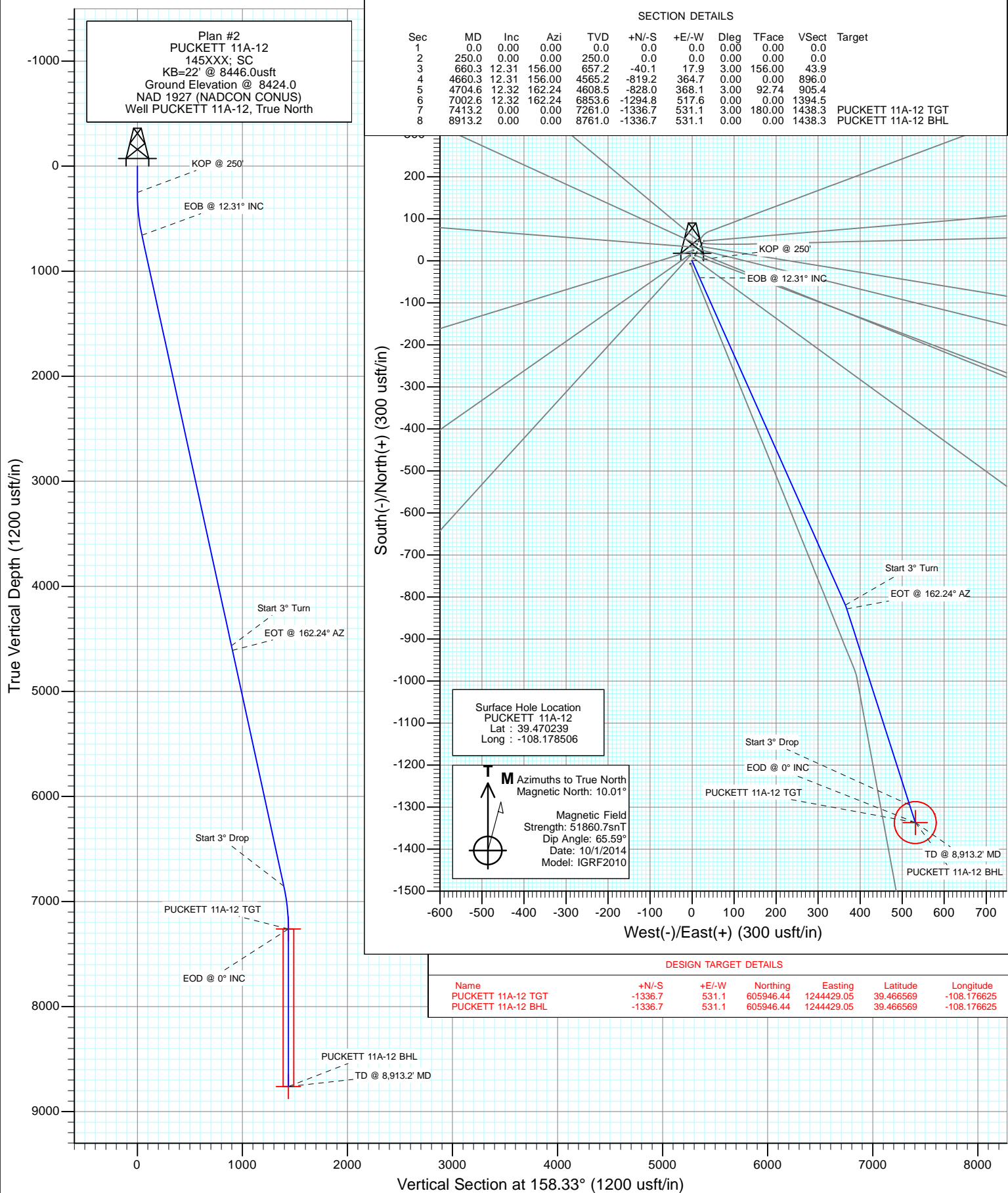
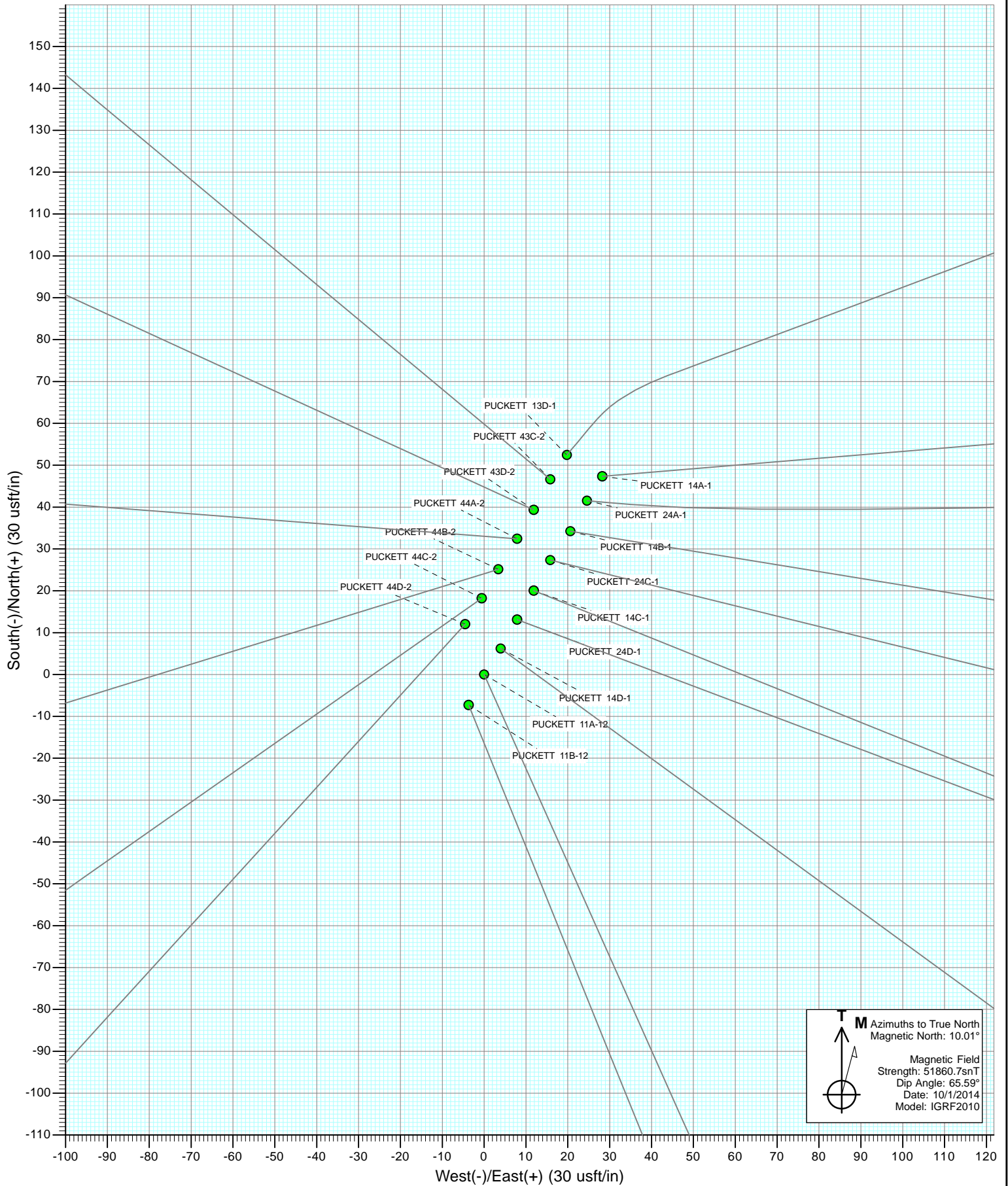
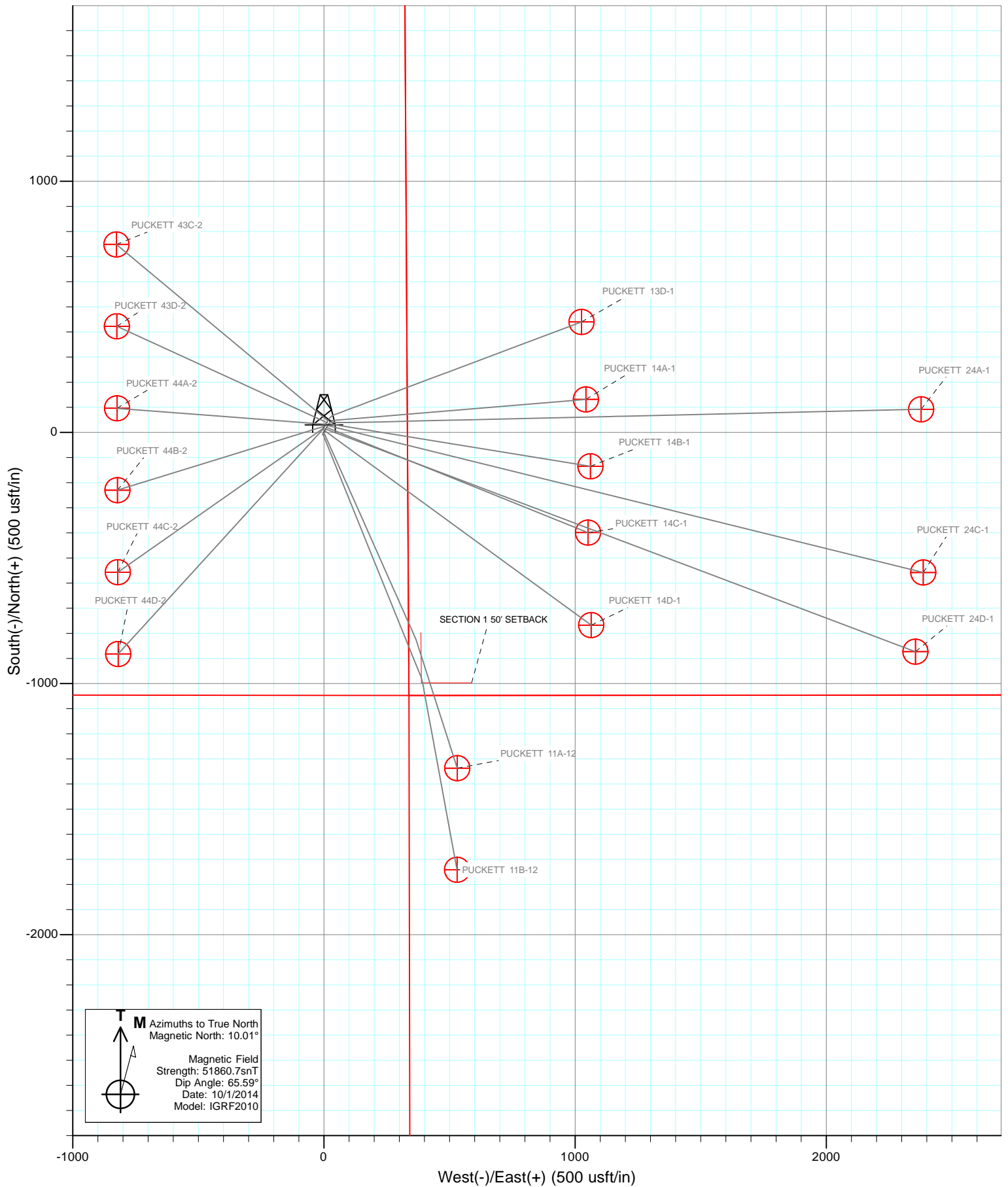




Project: Garfield County, CO
Site: S2-T7S-R97W (Puckett Pad P2)
Well: PUCKETT 11A-12
Wellbore: DD
Design: Plan #2







Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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 11A-12					
Well Position	+N/-S	0.0 usft	Northing:	607,298.23 usft	Latitude:	39.470239
	+E/-W	0.0 usft	Easting:	1,243,937.64 usft	Longitude:	-108.178506
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 #2			
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	158.33

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	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
660.3	12.31	156.00	657.2	-40.1	17.9	3.00	3.00	0.00	156.00	
4,660.3	12.31	156.00	4,565.2	-819.2	364.7	0.00	0.00	0.00	0.00	
4,704.6	12.32	162.24	4,608.5	-828.0	368.1	3.00	0.02	14.07	92.74	
7,002.6	12.32	162.24	6,853.6	-1,294.8	517.6	0.00	0.00	0.00	0.00	
7,413.2	0.00	0.00	7,261.0	-1,336.7	531.1	3.00	-3.00	0.00	180.00	PUCKETT 11A-12 TG
8,913.2	0.00	0.00	8,761.0	-1,336.7	531.1	0.00	0.00	0.00	0.00	PUCKETT 11A-12 BH

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	KOP @ 250'
300.0	1.50	156.00	300.0	-0.6	0.3	0.7	3.00	3.00	
400.0	4.50	156.00	399.8	-5.4	2.4	5.9	3.00	3.00	
500.0	7.50	156.00	499.3	-14.9	6.6	16.3	3.00	3.00	
600.0	10.50	156.00	598.0	-29.2	13.0	32.0	3.00	3.00	
660.3	12.31	156.00	657.2	-40.1	17.9	43.9	3.00	3.00	EOB @ 12.31° INC
700.0	12.31	156.00	695.9	-47.8	21.3	52.3	0.00	0.00	
800.0	12.31	156.00	793.6	-67.3	30.0	73.6	0.00	0.00	
900.0	12.31	156.00	891.3	-86.8	38.6	94.9	0.00	0.00	
1,000.0	12.31	156.00	989.0	-106.3	47.3	116.2	0.00	0.00	
1,100.0	12.31	156.00	1,086.7	-125.7	56.0	137.5	0.00	0.00	
1,200.0	12.31	156.00	1,184.4	-145.2	64.7	158.8	0.00	0.00	
1,300.0	12.31	156.00	1,282.1	-164.7	73.3	180.1	0.00	0.00	
1,400.0	12.31	156.00	1,379.8	-184.2	82.0	201.4	0.00	0.00	
1,500.0	12.31	156.00	1,477.5	-203.7	90.7	222.7	0.00	0.00	
1,600.0	12.31	156.00	1,575.2	-223.1	99.3	244.0	0.00	0.00	
1,700.0	12.31	156.00	1,672.9	-242.6	108.0	265.3	0.00	0.00	
1,800.0	12.31	156.00	1,770.6	-262.1	116.7	286.7	0.00	0.00	
1,900.0	12.31	156.00	1,868.3	-281.6	125.4	308.0	0.00	0.00	
2,000.0	12.31	156.00	1,966.0	-301.0	134.0	329.3	0.00	0.00	
2,100.0	12.31	156.00	2,063.8	-320.5	142.7	350.6	0.00	0.00	
2,200.0	12.31	156.00	2,161.5	-340.0	151.4	371.9	0.00	0.00	
2,300.0	12.31	156.00	2,259.2	-359.5	160.0	393.2	0.00	0.00	
2,400.0	12.31	156.00	2,356.9	-378.9	168.7	414.5	0.00	0.00	
2,500.0	12.31	156.00	2,454.6	-398.4	177.4	435.8	0.00	0.00	
2,600.0	12.31	156.00	2,552.3	-417.9	186.1	457.1	0.00	0.00	
2,700.0	12.31	156.00	2,650.0	-437.4	194.7	478.4	0.00	0.00	
2,800.0	12.31	156.00	2,747.7	-456.9	203.4	499.7	0.00	0.00	
2,900.0	12.31	156.00	2,845.4	-476.3	212.1	521.0	0.00	0.00	
3,000.0	12.31	156.00	2,943.1	-495.8	220.7	542.3	0.00	0.00	
3,100.0	12.31	156.00	3,040.8	-515.3	229.4	563.6	0.00	0.00	
3,200.0	12.31	156.00	3,138.5	-534.8	238.1	584.9	0.00	0.00	
3,300.0	12.31	156.00	3,236.2	-554.2	246.8	606.2	0.00	0.00	
3,400.0	12.31	156.00	3,333.9	-573.7	255.4	627.5	0.00	0.00	
3,500.0	12.31	156.00	3,431.6	-593.2	264.1	648.8	0.00	0.00	
3,600.0	12.31	156.00	3,529.3	-612.7	272.8	670.1	0.00	0.00	
3,700.0	12.31	156.00	3,627.0	-632.1	281.4	691.4	0.00	0.00	
3,800.0	12.31	156.00	3,724.7	-651.6	290.1	712.7	0.00	0.00	
3,900.0	12.31	156.00	3,822.4	-671.1	298.8	734.0	0.00	0.00	
4,000.0	12.31	156.00	3,920.1	-690.6	307.5	755.3	0.00	0.00	
4,100.0	12.31	156.00	4,017.8	-710.1	316.1	776.6	0.00	0.00	
4,200.0	12.31	156.00	4,115.5	-729.5	324.8	797.9	0.00	0.00	
4,300.0	12.31	156.00	4,213.2	-749.0	333.5	819.2	0.00	0.00	
4,400.0	12.31	156.00	4,310.9	-768.5	342.2	840.5	0.00	0.00	
4,500.0	12.31	156.00	4,408.6	-788.0	350.8	861.8	0.00	0.00	
4,600.0	12.31	156.00	4,506.3	-807.4	359.5	883.1	0.00	0.00	
4,660.3	12.31	156.00	4,565.2	-819.2	364.7	896.0	0.00	0.00	Start 3° Turn
4,704.6	12.32	162.24	4,608.5	-828.0	368.1	905.4	3.00	0.02	EOT @ 162.24° AZ
4,800.0	12.32	162.24	4,701.7	-847.4	374.3	925.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,900.0	12.32	162.24	4,799.4	-867.7	380.8	947.0	0.00	0.00	
5,000.0	12.32	162.24	4,897.1	-888.0	387.3	968.3	0.00	0.00	
5,100.0	12.32	162.24	4,994.8	-908.3	393.8	989.5	0.00	0.00	
5,200.0	12.32	162.24	5,092.5	-928.6	400.3	1,010.8	0.00	0.00	
5,300.0	12.32	162.24	5,190.2	-949.0	406.8	1,032.1	0.00	0.00	
5,400.0	12.32	162.24	5,287.9	-969.3	413.3	1,053.4	0.00	0.00	
5,500.0	12.32	162.24	5,385.6	-989.6	419.9	1,074.7	0.00	0.00	
5,600.0	12.32	162.24	5,483.3	-1,009.9	426.4	1,096.0	0.00	0.00	
5,700.0	12.32	162.24	5,581.0	-1,030.2	432.9	1,117.2	0.00	0.00	
5,800.0	12.32	162.24	5,678.7	-1,050.5	439.4	1,138.5	0.00	0.00	
5,900.0	12.32	162.24	5,776.4	-1,070.8	445.9	1,159.8	0.00	0.00	
6,000.0	12.32	162.24	5,874.0	-1,091.2	452.4	1,181.1	0.00	0.00	
6,100.0	12.32	162.24	5,971.7	-1,111.5	458.9	1,202.4	0.00	0.00	
6,200.0	12.32	162.24	6,069.4	-1,131.8	465.4	1,223.7	0.00	0.00	
6,300.0	12.32	162.24	6,167.1	-1,152.1	471.9	1,244.9	0.00	0.00	
6,400.0	12.32	162.24	6,264.8	-1,172.4	478.4	1,266.2	0.00	0.00	
6,500.0	12.32	162.24	6,362.5	-1,192.7	484.9	1,287.5	0.00	0.00	
6,600.0	12.32	162.24	6,460.2	-1,213.1	491.4	1,308.8	0.00	0.00	
6,700.0	12.32	162.24	6,557.9	-1,233.4	497.9	1,330.1	0.00	0.00	
6,800.0	12.32	162.24	6,655.6	-1,253.7	504.5	1,351.4	0.00	0.00	
6,900.0	12.32	162.24	6,753.3	-1,274.0	511.0	1,372.6	0.00	0.00	
7,002.6	12.32	162.24	6,853.6	-1,294.8	517.6	1,394.5	0.00	0.00	Start 3° Drop
7,100.0	9.40	162.24	6,949.2	-1,312.3	523.2	1,412.8	3.00	-3.00	
7,200.0	6.40	162.24	7,048.3	-1,325.4	527.4	1,426.5	3.00	-3.00	
7,300.0	3.40	162.24	7,147.9	-1,333.5	530.0	1,435.0	3.00	-3.00	
7,400.0	0.40	162.24	7,247.8	-1,336.7	531.0	1,438.3	3.00	-3.00	
7,413.2	0.00	0.00	7,261.0	-1,336.7	531.1	1,438.3	3.00	-3.00	EOD @ 0° INC
7,500.0	0.00	0.00	7,347.8	-1,336.7	531.1	1,438.3	0.00	0.00	
7,600.0	0.00	0.00	7,447.8	-1,336.7	531.1	1,438.3	0.00	0.00	
7,700.0	0.00	0.00	7,547.8	-1,336.7	531.1	1,438.3	0.00	0.00	
7,800.0	0.00	0.00	7,647.8	-1,336.7	531.1	1,438.3	0.00	0.00	
7,900.0	0.00	0.00	7,747.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,000.0	0.00	0.00	7,847.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,100.0	0.00	0.00	7,947.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,200.0	0.00	0.00	8,047.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,300.0	0.00	0.00	8,147.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,400.0	0.00	0.00	8,247.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,500.0	0.00	0.00	8,347.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,600.0	0.00	0.00	8,447.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,700.0	0.00	0.00	8,547.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,800.0	0.00	0.00	8,647.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,900.0	0.00	0.00	8,747.8	-1,336.7	531.1	1,438.3	0.00	0.00	
8,913.2	0.00	0.00	8,761.0	-1,336.7	531.1	1,438.3	0.00	0.00	TD @ 8,913.2' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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 11A-12 TGT	0.00	0.00	7,261.0	-1,336.7	531.1	605,946.44	1,244,429.05	39.466569	-108.176625
- plan hits target center									
- Point									
PUCKETT 11A-12 BHL	0.00	0.00	8,761.0	-1,336.7	531.1	605,946.44	1,244,429.05	39.466569	-108.176625
- plan hits target center									
- Circle (radius 50.0)									

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Comment	
250.0	250.0	0.0	0.0	KOP @ 250'	
660.3	657.2	-40.1	17.9	EOB @ 12.31° INC	
4,660.3	4,565.2	-819.2	364.7	Start 3° Turn	
4,704.6	4,608.5	-828.0	368.1	EOT @ 162.24° AZ	
7,002.6	6,853.6	-1,294.8	517.6	Start 3° Drop	
7,413.2	7,261.0	-1,336.7	531.1	EOD @ 0° INC	
8,913.2	8,761.0	-1,336.7	531.1	TD @ 8,913.2' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad P2)

PUCKETT 11A-12

DD

Plan #2

Anticollision Report

07 October, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference
Interpolation Method:	MD Interval 100.0usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 200.0usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program	Date	10/7/2014
From (usft)	To (usft)	Survey (Wellbore)
0.0	8,913.2	Plan #2 (DD)
		Tool Name
		ISCWSA MWD
		Description
		MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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 P2)						
PUCKETT 11B-12 - DD - Plan #2	200.0	200.0	8.2	7.5	13.067	CC, ES
PUCKETT 11B-12 - DD - Plan #2	700.0	696.9	19.6	16.3	5.915	SF
PUCKETT 13D-1 - DD - Plan #1	200.0	200.0	56.0	55.4	89.685	CC, ES
PUCKETT 13D-1 - DD - Plan #1	600.0	589.5	106.0	103.2	38.161	SF
PUCKETT 14A-1 - DD - Plan #1	200.0	200.0	55.1	54.5	88.218	CC
PUCKETT 14A-1 - DD - Plan #1	300.0	300.0	55.5	54.4	51.855	ES
PUCKETT 14A-1 - DD - Plan #1	600.0	596.1	79.8	77.1	29.722	SF
PUCKETT 14B-1 - DD - Plan #1	200.0	200.0	40.0	39.3	63.954	CC
PUCKETT 14B-1 - DD - Plan #1	300.0	300.0	40.3	39.3	37.689	ES
PUCKETT 14B-1 - DD - Plan #1	600.0	597.6	64.3	61.6	23.972	SF
PUCKETT 14C-1 - DD - Plan #1	200.0	200.0	23.3	22.7	37.255	CC
PUCKETT 14C-1 - DD - Plan #1	228.8	228.8	23.3	22.6	31.047	ES
PUCKETT 14C-1 - DD - Plan #1	500.0	499.6	34.5	32.4	16.562	SF
PUCKETT 14D-1 - DD - Plan #1	200.0	200.0	7.3	6.7	11.756	CC
PUCKETT 14D-1 - DD - Plan #1	230.7	230.7	7.4	6.7	9.752	ES
PUCKETT 14D-1 - DD - Plan #1	400.0	400.0	10.7	9.1	6.921	SF
PUCKETT 24A-1 - DD - Plan #1	200.0	200.0	48.2	47.6	77.200	CC
PUCKETT 24A-1 - DD - Plan #1	228.3	228.3	48.3	47.5	64.432	ES
PUCKETT 24A-1 - DD - Plan #1	600.0	594.3	77.2	74.5	28.658	SF
PUCKETT 24C-1 - DD - Plan #1	200.0	200.0	31.6	30.9	50.512	CC
PUCKETT 24C-1 - DD - Plan #1	227.8	227.8	31.6	30.9	42.302	ES
PUCKETT 24C-1 - DD - Plan #1	600.0	596.2	59.3	56.6	21.840	SF
PUCKETT 24D-1 - DD - Plan #1	200.0	200.0	15.3	14.7	24.503	CC, ES
PUCKETT 24D-1 - DD - Plan #1	400.0	399.3	21.3	19.8	14.056	SF
PUCKETT 43C-2 - DD - Plan #1	200.0	200.0	49.2	48.6	78.778	CC
PUCKETT 43C-2 - DD - Plan #1	234.1	234.1	49.3	48.6	63.542	ES
PUCKETT 43C-2 - DD - Plan #1	500.0	494.6	69.8	67.6	31.352	SF
PUCKETT 43D-2 - DD - Plan #1	200.0	200.0	41.1	40.5	65.752	CC
PUCKETT 43D-2 - DD - Plan #1	228.1	228.1	41.2	40.4	54.921	ES
PUCKETT 43D-2 - DD - Plan #1	500.0	497.2	57.6	55.4	26.196	SF
PUCKETT 44A-2 - DD - Plan #1	200.0	200.0	33.4	32.7	53.392	CC
PUCKETT 44A-2 - DD - Plan #1	228.1	228.1	33.4	32.7	44.609	ES
PUCKETT 44A-2 - DD - Plan #1	500.0	499.0	47.7	45.6	21.941	SF
PUCKETT 44B-2 - DD - Plan #1	200.0	200.0	25.4	24.7	40.577	CC
PUCKETT 44B-2 - DD - Plan #1	228.0	228.0	25.4	24.7	33.928	ES
PUCKETT 44B-2 - DD - Plan #1	500.0	499.6	39.2	37.0	17.857	SF
PUCKETT 44C-2 - DD - Plan #1	200.0	200.0	18.2	17.6	29.152	CC
PUCKETT 44C-2 - DD - Plan #1	212.0	212.0	18.2	17.6	26.881	ES
PUCKETT 44C-2 - DD - Plan #1	400.0	400.4	22.2	20.6	13.893	SF
PUCKETT 44D-2 - DD - Plan #1	200.0	200.0	12.8	12.2	20.549	CC
PUCKETT 44D-2 - DD - Plan #1	300.0	300.2	12.9	11.8	12.051	ES
PUCKETT 44D-2 - DD - Plan #1	400.0	400.1	16.8	15.2	10.613	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 11B-12 - DD - Plan #2													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-153.29	-7.3	-3.7	8.2					
100.0	100.0	100.0	100.0	0.1	0.1	-153.29	-7.3	-3.7	8.2	8.0	0.18	46.573		
200.0	200.0	200.0	200.0	0.3	0.3	-153.29	-7.3	-3.7	8.2	7.5	0.62	13.067 CC, ES		
300.0	300.0	299.7	299.6	0.5	0.5	41.99	-9.7	-2.7	9.6	8.5	1.05	9.087		
400.0	399.8	399.2	398.8	0.7	0.7	34.55	-16.9	0.2	11.8	10.2	1.54	7.637		
500.0	499.3	498.6	497.3	1.0	1.0	30.20	-28.9	5.1	14.2	12.1	2.11	6.724		
600.0	598.0	597.8	594.9	1.3	1.4	27.72	-45.6	11.8	16.7	14.0	2.72	6.129		
700.0	695.9	696.9	691.3	1.7	1.8	25.90	-66.9	20.4	19.6	16.3	3.32	5.915 SF		
800.0	793.6	796.5	787.3	2.1	2.3	22.27	-91.6	30.4	25.1	21.3	3.84	6.532		
900.0	891.3	896.4	883.5	2.6	2.9	19.86	-116.5	40.4	30.8	26.4	4.37	7.043		
1,000.0	989.0	996.2	979.6	3.0	3.4	18.20	-141.3	50.5	36.5	31.6	4.90	7.440		
1,100.0	1,086.7	1,096.0	1,075.8	3.5	4.0	16.99	-166.2	60.5	42.2	36.7	5.44	7.753		
1,200.0	1,184.4	1,195.9	1,172.0	3.9	4.5	16.07	-191.1	70.6	47.9	41.9	5.99	8.003		
1,300.0	1,282.1	1,295.7	1,268.1	4.4	5.1	15.34	-216.0	80.6	53.7	47.1	6.54	8.207		
1,400.0	1,379.8	1,395.5	1,364.3	4.8	5.6	14.76	-240.9	90.7	59.4	52.3	7.09	8.375		
1,500.0	1,477.5	1,495.4	1,460.4	5.3	6.2	14.28	-265.7	100.7	65.2	57.5	7.65	8.516		
1,600.0	1,575.2	1,595.2	1,556.6	5.8	6.7	13.88	-290.6	110.8	70.9	62.7	8.21	8.635		
1,700.0	1,672.9	1,695.0	1,652.8	6.2	7.3	13.53	-315.5	120.8	76.7	67.9	8.78	8.738		
1,800.0	1,770.6	1,794.9	1,748.9	6.7	7.9	13.24	-340.4	130.9	82.5	73.1	9.34	8.826		
1,900.0	1,868.3	1,894.7	1,845.1	7.2	8.4	12.98	-365.2	140.9	88.2	78.3	9.91	8.904		
2,000.0	1,966.0	1,994.5	1,941.2	7.6	9.0	12.76	-390.1	151.0	94.0	83.5	10.48	8.972		
2,100.0	2,063.8	2,094.4	2,037.4	8.1	9.5	12.56	-415.0	161.1	99.8	88.7	11.05	9.033		
2,200.0	2,161.5	2,194.2	2,133.6	8.5	10.1	12.38	-439.9	171.1	105.6	93.9	11.62	9.087		
2,300.0	2,259.2	2,294.0	2,229.7	9.0	10.7	12.23	-464.7	181.2	111.3	99.1	12.19	9.135		
2,400.0	2,356.9	2,393.9	2,325.9	9.5	11.2	12.08	-489.6	191.2	117.1	104.3	12.76	9.179		
2,500.0	2,454.6	2,493.7	2,422.0	9.9	11.8	11.95	-514.5	201.3	122.9	109.6	13.33	9.219		
2,600.0	2,552.3	2,593.5	2,518.2	10.4	12.3	11.84	-539.4	211.3	128.7	114.8	13.90	9.255		
2,700.0	2,650.0	2,693.4	2,614.4	10.9	12.9	11.73	-564.2	221.4	134.4	120.0	14.47	9.289		
2,800.0	2,747.7	2,793.2	2,710.5	11.3	13.5	11.63	-589.1	231.4	140.2	125.2	15.05	9.319		
2,900.0	2,845.4	2,893.0	2,806.7	11.8	14.0	11.54	-614.0	241.5	146.0	130.4	15.62	9.347		
3,000.0	2,943.1	2,992.9	2,902.8	12.3	14.6	11.46	-638.9	251.5	151.8	135.6	16.19	9.373		
3,100.0	3,040.8	3,092.7	2,999.0	12.7	15.2	11.38	-663.8	261.6	157.5	140.8	16.76	9.397		
3,200.0	3,138.5	3,192.5	3,095.1	13.2	15.7	11.31	-688.6	271.6	163.3	146.0	17.34	9.420		
3,300.0	3,236.2	3,292.3	3,191.3	13.7	16.3	11.24	-713.5	281.7	169.1	151.2	17.91	9.441		
3,400.0	3,333.9	3,392.2	3,287.5	14.1	16.8	11.18	-738.4	291.7	174.9	156.4	18.49	9.461		
3,500.0	3,431.6	3,492.0	3,383.6	14.6	17.4	11.12	-763.3	301.8	180.7	161.6	19.06	9.479		
3,600.0	3,529.3	3,591.8	3,479.8	15.1	18.0	11.06	-788.1	311.8	186.4	166.8	19.63	9.497		
3,700.0	3,627.0	3,691.7	3,575.9	15.5	18.5	11.01	-813.0	321.9	192.2	172.0	20.21	9.513		
3,800.0	3,724.7	3,791.5	3,672.1	16.0	19.1	10.96	-837.9	331.9	198.0	177.2	20.78	9.529		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-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	20.65	52.4	19.8	56.0					
100.0	100.0	100.0	100.0	0.1	0.1	20.65	52.4	19.8	56.0	55.9	0.18	319.648		
200.0	200.0	200.0	200.0	0.3	0.3	20.65	52.4	19.8	56.0	55.4	0.62	89.685		
200.0	200.0	200.0	200.0	0.3	0.3	20.65	52.4	19.8	56.0	55.4	0.62	89.685	CC, ES	
300.0	300.0	297.9	297.9	0.5	0.5	-135.30	53.5	20.7	57.9	56.8	1.08	53.784		
400.0	399.8	394.5	394.2	0.7	0.8	-136.41	58.2	24.6	67.6	66.0	1.60	42.347		
500.0	499.3	491.8	491.0	1.0	1.0	-137.70	65.5	32.1	84.7	82.5	2.18	38.879		
600.0	598.0	589.5	587.7	1.3	1.3	-137.58	71.6	44.3	106.0	103.2	2.78	38.161	SF	
700.0	695.9	686.3	683.4	1.7	1.6	-137.90	76.9	58.6	130.8	127.4	3.40	38.481		
800.0	793.6	783.0	778.8	2.1	1.9	-138.57	82.3	72.9	156.3	152.3	3.99	39.171		
900.0	891.3	879.7	874.3	2.6	2.3	-139.05	87.6	87.1	181.9	177.2	4.61	39.445		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISOWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.81	47.3	28.2	55.1					
100.0	100.0	100.0	100.0	0.1	0.1	30.81	47.3	28.2	55.1	54.9	0.18	314.419		
200.0	200.0	200.0	200.0	0.3	0.3	30.81	47.3	28.2	55.1	54.5	0.62	88.218	CC	
228.2	228.2	228.2	228.2	0.4	0.4	-125.28	47.3	28.2	55.2	54.4	0.75	73.641		
300.0	300.0	300.0	300.0	0.5	0.5	-125.74	47.3	28.2	55.5	54.4	1.07	51.855	ES	
400.0	399.8	399.8	399.8	0.7	0.8	-129.81	47.3	28.2	58.7	57.2	1.55	37.952		
500.0	499.3	498.6	498.6	1.0	1.0	-136.09	47.4	28.8	66.2	64.1	2.09	31.598		
600.0	598.0	596.1	596.0	1.3	1.2	-140.24	47.8	33.8	79.8	77.1	2.69	29.722	SF	
700.0	695.9	692.7	692.1	1.7	1.4	-142.05	48.6	43.6	99.1	95.8	3.27	30.276		
800.0	793.6	789.5	787.8	2.1	1.7	-141.66	49.8	57.7	120.5	116.7	3.83	31.423		
900.0	891.3	887.2	884.3	2.6	2.0	-141.11	51.0	72.6	142.1	137.7	4.44	32.010		
1,000.0	989.0	984.8	980.8	3.0	2.3	-140.71	52.3	87.6	163.8	158.7	5.08	32.265		
1,100.0	1,086.7	1,082.4	1,077.2	3.5	2.6	-140.40	53.5	102.5	185.4	179.7	5.73	32.343		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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	31.05	34.2	20.6	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	31.05	34.2	20.6	40.0	39.8	0.18	227.938		
200.0	200.0	200.0	200.0	0.3	0.3	31.05	34.2	20.6	40.0	39.3	0.62	63.954 CC		
228.4	228.4	228.4	228.4	0.4	0.4	-125.08	34.2	20.6	40.0	39.3	0.75	53.356		
300.0	300.0	300.0	300.0	0.5	0.5	-125.71	34.2	20.6	40.3	39.3	1.07	37.689 ES		
400.0	399.8	399.8	399.8	0.7	0.8	-131.22	34.2	20.6	43.6	42.1	1.55	28.121		
500.0	499.3	498.9	498.8	1.0	1.0	-137.02	33.8	23.1	51.5	49.4	2.09	24.592		
600.0	598.0	597.6	597.3	1.3	1.2	-139.48	32.6	30.7	64.3	61.6	2.68	23.972 SF		
700.0	695.9	695.7	694.5	1.7	1.4	-139.63	30.6	43.2	81.4	78.1	3.29	24.775		
800.0	793.6	794.0	791.6	2.1	1.7	-138.54	28.1	58.5	99.6	95.7	3.89	25.634		
900.0	891.3	892.3	888.7	2.6	2.1	-137.78	25.6	73.8	117.8	113.3	4.53	25.988		
1,000.0	989.0	990.6	985.8	3.0	2.4	-137.23	23.1	89.1	136.0	130.8	5.21	26.103		
1,100.0	1,086.7	1,089.0	1,082.8	3.5	2.8	-136.81	20.6	104.4	154.2	148.3	5.91	26.106		
1,200.0	1,184.4	1,187.3	1,179.9	3.9	3.1	-136.47	18.1	119.8	172.5	165.8	6.62	26.056		
1,300.0	1,282.1	1,285.6	1,277.0	4.4	3.5	-136.20	15.6	135.1	190.7	183.4	7.34	25.981		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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	30.62	20.0	11.9	23.3				
100.0	100.0	100.0	100.0	0.1	0.1	30.62	20.0	11.9	23.3	23.1	0.18	132.780	
200.0	200.0	200.0	200.0	0.3	0.3	30.62	20.0	11.9	23.3	22.7	0.62	37.255 CC	
228.8	228.8	228.8	228.8	0.4	0.4	-125.60	20.0	11.9	23.3	22.6	0.75	31.047 ES	
300.0	300.0	300.0	300.0	0.5	0.5	-126.66	20.0	11.9	23.7	22.6	1.07	22.100	
400.0	399.8	399.9	399.8	0.7	0.8	-134.11	19.8	12.5	27.1	25.6	1.55	17.496	
500.0	499.3	499.6	499.5	1.0	1.0	-137.79	17.8	17.3	34.5	32.4	2.08	16.562 SF	
600.0	598.0	599.2	598.5	1.3	1.2	-137.74	14.0	26.9	45.4	42.7	2.68	16.956	
700.0	695.9	698.3	696.4	1.7	1.5	-136.01	8.3	41.0	59.5	56.2	3.31	17.977	
800.0	793.6	797.2	793.9	2.1	1.8	-134.55	2.1	56.4	74.3	70.3	3.96	18.768	
900.0	891.3	896.1	891.4	2.6	2.2	-133.58	-4.1	71.7	89.1	84.4	4.65	19.145	
1,000.0	989.0	994.9	988.9	3.0	2.5	-132.88	-10.2	87.0	103.9	98.5	5.38	19.323	
1,100.0	1,086.7	1,093.8	1,086.4	3.5	2.9	-132.35	-16.4	102.3	118.8	112.6	6.12	19.403	
1,200.0	1,184.4	1,192.7	1,183.9	3.9	3.3	-131.95	-22.6	117.6	133.6	126.7	6.88	19.432	
1,300.0	1,282.1	1,291.6	1,281.4	4.4	3.7	-131.62	-28.7	132.9	148.5	140.8	7.64	19.437	
1,400.0	1,379.8	1,390.5	1,378.9	4.8	4.0	-131.35	-34.9	148.2	163.3	154.9	8.41	19.427	
1,500.0	1,477.5	1,489.4	1,476.4	5.3	4.4	-131.13	-41.1	163.6	178.2	169.0	9.18	19.409	
1,600.0	1,575.2	1,588.3	1,573.9	5.8	4.8	-130.94	-47.2	178.9	193.0	183.1	9.96	19.389	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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	32.55	6.2	4.0	7.3					
100.0	100.0	100.0	100.0	0.1	0.1	32.55	6.2	4.0	7.3	7.2	0.18	41.900		
200.0	200.0	200.0	200.0	0.3	0.3	32.55	6.2	4.0	7.3	6.7	0.62	11.756 CC		
230.7	230.7	230.7	230.7	0.4	0.4	-124.24	6.2	4.0	7.4	6.7	0.76	9.752 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-127.49	6.2	4.0	7.7	6.7	1.07	7.213		
400.0	399.8	400.0	400.0	0.7	0.7	-135.83	4.6	6.1	10.7	9.1	1.54	6.921 SF		
500.0	499.3	500.1	499.7	1.0	1.0	-134.80	0.0	12.4	16.0	14.0	2.06	7.763		
600.0	598.0	600.0	598.8	1.3	1.2	-131.00	-7.7	23.0	23.7	21.1	2.66	8.920		
700.0	695.9	699.7	696.8	1.7	1.6	-126.92	-18.3	37.5	33.7	30.4	3.35	10.082		
800.0	793.6	799.1	794.3	2.1	2.0	-123.94	-29.7	53.1	44.2	40.1	4.09	10.811		
900.0	891.3	898.5	891.9	2.6	2.4	-122.11	-41.1	68.8	54.8	49.9	4.89	11.208		
1,000.0	989.0	998.0	989.4	3.0	2.8	-120.87	-52.5	84.4	65.3	59.6	5.71	11.442		
1,100.0	1,086.7	1,097.4	1,086.9	3.5	3.2	-119.97	-63.9	100.1	76.0	69.4	6.55	11.592		
1,200.0	1,184.4	1,196.8	1,184.4	3.9	3.6	-119.30	-75.3	115.7	86.6	79.2	7.40	11.692		
1,300.0	1,282.1	1,296.3	1,282.0	4.4	4.0	-118.77	-86.7	131.4	97.2	88.9	8.26	11.764		
1,400.0	1,379.8	1,395.7	1,379.5	4.8	4.5	-118.34	-98.1	147.0	107.8	98.7	9.13	11.816		
1,500.0	1,477.5	1,495.1	1,477.0	5.3	4.9	-118.00	-109.5	162.6	118.5	108.5	9.99	11.856		
1,600.0	1,575.2	1,594.5	1,574.5	5.8	5.3	-117.71	-120.9	178.3	129.1	118.3	10.86	11.887		
1,700.0	1,672.9	1,694.0	1,672.1	6.2	5.8	-117.46	-132.3	193.9	139.8	128.1	11.74	11.911		
1,800.0	1,770.6	1,793.4	1,769.6	6.7	6.2	-117.25	-143.7	209.6	150.4	137.8	12.61	11.932		
1,900.0	1,868.3	1,892.8	1,867.1	7.2	6.6	-117.06	-155.2	225.2	161.1	147.6	13.48	11.948		
2,000.0	1,966.0	1,992.3	1,964.6	7.6	7.0	-116.90	-166.6	240.9	171.8	157.4	14.36	11.962		
2,100.0	2,063.8	2,091.7	2,062.2	8.1	7.5	-116.76	-178.0	256.5	182.4	167.2	15.23	11.975		
2,200.0	2,161.5	2,191.1	2,159.7	8.5	7.9	-116.64	-189.4	272.1	193.1	177.0	16.11	11.985		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-ISWWSA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	30.61	41.5	24.6	48.2				
100.0	100.0	100.0	100.0	0.1	0.1	30.61	41.5	24.6	48.2	48.1	0.18	275.149	
200.0	200.0	200.0	200.0	0.3	0.3	30.61	41.5	24.6	48.2	47.6	0.62	77.200	CC
228.3	228.3	228.3	228.3	0.4	0.4	-125.49	41.5	24.6	48.3	47.5	0.75	64.432	ES
300.0	300.0	300.0	300.0	0.5	0.5	-126.01	41.5	24.6	48.6	47.6	1.07	45.420	
400.0	399.8	398.8	398.8	0.7	0.7	-127.94	41.3	27.1	52.8	51.3	1.53	34.413	
500.0	499.3	497.2	496.9	1.0	1.0	-128.74	40.6	34.7	62.3	60.2	2.07	30.061	
600.0	598.0	594.3	593.2	1.3	1.2	-128.74	39.9	47.1	77.2	74.5	2.69	28.658	SF
700.0	695.9	690.0	687.3	1.7	1.6	-128.38	39.5	64.1	97.7	94.3	3.38	28.892	
800.0	793.6	784.3	779.2	2.1	2.0	-126.71	39.4	85.4	121.2	117.1	4.11	29.504	
900.0	891.3	877.0	868.3	2.6	2.4	-124.05	39.7	110.8	147.4	142.5	4.92	29.936	
1,000.0	989.0	967.7	954.3	3.0	3.0	-121.02	40.2	139.8	176.7	170.9	5.81	30.395	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-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	30.06	27.3	15.8	31.6					
100.0	100.0	100.0	100.0	0.1	0.1	30.06	27.3	15.8	31.6	31.4	0.18	180.028		
200.0	200.0	200.0	200.0	0.3	0.3	30.06	27.3	15.8	31.6	30.9	0.62	50.512 CC		
227.8	227.8	227.8	227.8	0.4	0.4	-126.09	27.3	15.8	31.6	30.9	0.75	42.302 ES		
300.0	300.0	299.8	299.8	0.5	0.5	-125.76	27.2	16.4	32.1	31.1	1.06	30.222		
400.0	399.8	399.1	399.0	0.7	0.7	-124.49	25.9	21.5	36.7	35.1	1.52	24.071		
500.0	499.3	498.0	497.3	1.0	1.0	-122.67	23.5	31.4	45.7	43.7	2.07	22.096		
600.0	598.0	596.2	594.3	1.3	1.3	-120.91	19.8	46.2	59.3	56.6	2.72	21.840 SF		
700.0	695.9	693.3	689.3	1.7	1.7	-119.37	15.0	65.5	77.2	73.7	3.46	22.288		
800.0	793.6	789.4	782.3	2.1	2.1	-116.38	9.2	89.3	97.5	93.2	4.29	22.721		
900.0	891.3	884.0	872.5	2.6	2.7	-112.36	2.3	117.1	120.2	115.0	5.21	23.055		
1,000.0	989.0	977.7	960.2	3.0	3.3	-108.06	-5.5	148.7	145.8	139.6	6.20	23.507		
1,100.0	1,086.7	1,073.5	1,049.6	3.5	4.0	-104.57	-13.8	182.3	172.9	165.6	7.22	23.939		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-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	31.08	13.1	7.9	15.3				
100.0	100.0	100.0	100.0	0.1	0.1	31.08	13.1	7.9	15.3	15.1	0.18	87.331	
200.0	200.0	200.0	200.0	0.3	0.3	31.08	13.1	7.9	15.3	14.7	0.62	24.503 CC, ES	
300.0	300.0	299.8	299.7	0.5	0.5	-117.74	12.2	10.3	16.3	15.2	1.06	15.408	
400.0	399.8	399.3	398.9	0.7	0.8	-109.99	9.4	17.6	21.3	19.8	1.51	14.056 SF	
500.0	499.3	498.2	497.0	1.0	1.0	-106.10	4.9	29.6	30.5	28.4	2.06	14.769	
600.0	598.0	596.4	593.6	1.3	1.4	-104.66	-1.4	46.3	43.6	40.9	2.73	15.953	
700.0	695.9	693.6	688.2	1.7	1.8	-104.10	-9.3	67.3	60.5	56.9	3.54	17.091	
800.0	793.6	789.8	780.5	2.1	2.4	-101.54	-18.8	92.4	80.2	75.7	4.43	18.086	
900.0	891.3	884.4	869.9	2.6	3.0	-97.75	-29.7	121.4	102.8	97.4	5.39	19.059	
1,000.0	989.0	980.1	959.1	3.0	3.6	-94.04	-42.0	153.8	127.9	121.6	6.38	20.056	
1,100.0	1,086.7	1,076.6	1,049.0	3.5	4.3	-91.47	-54.3	186.5	153.5	146.2	7.37	20.829	
1,200.0	1,184.4	1,173.1	1,138.9	3.9	5.1	-89.64	-66.7	219.3	179.3	171.0	8.36	21.448	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-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	18.73	46.6	15.8	49.2					
100.0	100.0	100.0	100.0	0.1	0.1	18.73	46.6	15.8	49.2	49.0	0.18	280.774		
200.0	200.0	200.0	200.0	0.3	0.3	18.73	46.6	15.8	49.2	48.6	0.62	78.778 CC		
234.1	234.1	234.1	234.1	0.4	0.4	-137.39	46.6	15.8	49.3	48.6	0.78	63.542 ES		
300.0	300.0	299.8	299.8	0.5	0.5	-137.94	46.7	15.7	49.8	48.7	1.07	46.318		
400.0	399.8	398.2	398.1	0.7	0.8	-145.08	49.2	12.8	55.5	54.0	1.59	34.954		
500.0	499.3	494.6	494.1	1.0	1.0	-156.02	54.7	6.1	69.8	67.6	2.23	31.352 SF		
600.0	598.0	587.7	586.3	1.3	1.3	-165.78	63.0	-3.8	94.4	91.5	2.92	32.310		
700.0	695.9	681.3	678.7	1.7	1.6	-172.56	72.7	-15.4	127.2	123.6	3.51	36.205		
800.0	793.6	774.6	770.8	2.1	1.9	-176.67	82.3	-27.0	161.8	157.8	3.96	40.885		
900.0	891.3	867.9	862.9	2.6	2.2	-179.33	92.0	-38.6	196.8	192.4	4.41	44.581		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-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	16.77	39.3	11.9	41.1					
100.0	100.0	100.0	100.0	0.1	0.1	16.77	39.3	11.9	41.1	40.9	0.18	234.346		
200.0	200.0	200.0	200.0	0.3	0.3	16.77	39.3	11.9	41.1	40.5	0.62	65.752 CC		
228.1	228.1	228.1	228.1	0.4	0.4	-139.32	39.3	11.9	41.2	40.4	0.75	54.921 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-139.81	39.3	11.9	41.6	40.5	1.08	38.632		
400.0	399.8	399.4	399.4	0.7	0.8	-145.70	39.9	10.5	46.0	44.5	1.58	29.085		
500.0	499.3	497.2	497.0	1.0	1.0	-157.54	42.6	4.8	57.6	55.4	2.20	26.196 SF		
600.0	598.0	592.3	591.4	1.3	1.2	-169.00	47.1	-5.1	78.7	75.8	2.89	27.284		
700.0	695.9	687.2	685.4	1.7	1.5	-176.67	52.5	-16.9	107.9	104.4	3.47	31.080		
800.0	793.6	781.8	779.1	2.1	1.8	178.89	57.9	-28.6	139.0	135.1	3.92	35.447		
900.0	891.3	876.4	872.9	2.6	2.1	176.07	63.3	-40.3	170.6	166.2	4.39	38.839		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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							
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	13.71	32.4	7.9	33.4				
100.0	100.0	100.0	100.0	0.1	0.1	13.71	32.4	7.9	33.4	33.2	0.18	190.294	
200.0	200.0	200.0	200.0	0.3	0.3	13.71	32.4	7.9	33.4	32.7	0.62	53.392 CC	
228.1	228.1	228.1	228.1	0.4	0.4	-142.40	32.4	7.9	33.4	32.7	0.75	44.609 ES	
300.0	300.0	300.0	300.0	0.5	0.5	-142.96	32.4	7.9	33.9	32.8	1.08	31.439	
400.0	399.8	399.9	399.9	0.7	0.8	-147.87	32.4	7.7	38.2	36.6	1.59	24.051	
500.0	499.3	499.0	498.9	1.0	1.0	-159.12	32.7	3.9	47.7	45.6	2.18	21.941 SF	
600.0	598.0	595.9	595.4	1.3	1.2	-171.70	33.4	-4.8	65.1	62.3	2.83	22.985	
700.0	695.9	691.6	690.4	1.7	1.5	179.19	34.3	-16.6	90.6	87.2	3.42	26.478	
800.0	793.6	787.3	785.4	2.1	1.7	174.09	35.2	-28.5	118.3	114.4	3.89	30.425	
900.0	891.3	883.0	880.3	2.6	2.0	170.93	36.1	-40.3	146.5	142.1	4.38	33.444	
1,000.0	989.0	978.7	975.2	3.0	2.3	168.78	37.0	-52.2	175.0	170.1	4.90	35.743	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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-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	7.68	25.1	3.4	25.4					
100.0	100.0	100.0	100.0	0.1	0.1	7.68	25.1	3.4	25.4	25.2	0.18	144.621		
200.0	200.0	200.0	200.0	0.3	0.3	7.68	25.1	3.4	25.4	24.7	0.62	40.577 CC		
228.0	228.0	228.0	228.0	0.4	0.4	-148.44	25.1	3.4	25.4	24.7	0.75	33.928 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-149.07	25.1	3.4	25.9	24.8	1.08	23.991		
400.0	399.8	400.2	400.2	0.7	0.8	-156.76	24.7	2.0	30.1	28.5	1.60	18.848		
500.0	499.3	499.6	499.4	1.0	1.0	-172.03	22.8	-4.2	39.2	37.0	2.20	17.857 SF		
600.0	598.0	597.3	596.5	1.3	1.2	174.00	19.5	-15.0	56.2	53.3	2.86	19.662		
700.0	695.9	694.1	692.4	1.7	1.5	166.50	15.8	-26.8	79.8	76.4	3.44	23.203		
800.0	793.6	790.7	788.2	2.1	1.8	162.65	12.2	-38.6	105.1	101.2	3.95	26.643		
900.0	891.3	887.3	884.0	2.6	2.1	160.29	8.5	-50.4	130.6	126.2	4.49	29.107		
1,000.0	989.0	983.8	979.8	3.0	2.4	158.70	4.9	-62.2	156.3	151.3	5.06	30.903		
1,100.0	1,086.7	1,080.4	1,075.5	3.5	2.7	157.56	1.2	-74.0	182.1	176.4	5.65	32.245		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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	-1.78	18.2	-0.6	18.2				
100.0	100.0	100.0	100.0	0.1	0.1	-1.78	18.2	-0.6	18.2	18.0	0.18	103.901	
200.0	200.0	200.0	200.0	0.3	0.3	-1.78	18.2	-0.6	18.2	17.6	0.62	29.152 CC	
212.0	212.0	212.0	212.0	0.3	0.3	-157.80	18.2	-0.6	18.2	17.6	0.68	26.881 ES	
300.0	300.0	300.1	300.1	0.5	0.5	-158.95	18.1	-0.7	18.7	17.7	1.08	17.387	
400.0	399.8	400.4	400.3	0.7	0.7	-172.59	15.8	-3.9	22.2	20.6	1.59	13.893 SF	
500.0	499.3	499.8	499.3	1.0	1.0	168.69	10.6	-11.4	31.3	29.1	2.20	14.202	
600.0	598.0	597.9	596.4	1.3	1.3	155.51	2.8	-22.5	47.9	45.0	2.85	16.776	
700.0	695.9	695.3	692.8	1.7	1.6	150.46	-5.5	-34.3	70.0	66.5	3.48	20.117	
800.0	793.6	792.5	788.9	2.1	1.9	148.25	-13.7	-46.1	93.2	89.1	4.07	22.907	
900.0	891.3	889.8	885.1	2.6	2.2	146.93	-22.0	-57.9	116.4	111.7	4.70	24.792	
1,000.0	989.0	987.0	981.3	3.0	2.6	146.04	-30.2	-69.6	139.7	134.4	5.35	26.114	
1,100.0	1,086.7	1,084.2	1,077.4	3.5	2.9	145.41	-38.5	-81.4	163.0	157.0	6.02	27.081	
1,200.0	1,184.4	1,181.5	1,173.6	3.9	3.3	144.93	-46.7	-93.2	186.3	179.6	6.70	27.802	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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	-20.60	12.0	-4.5	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	-20.60	12.0	-4.5	12.8	12.7	0.18	73.240		
200.0	200.0	200.0	200.0	0.3	0.3	-20.60	12.0	-4.5	12.8	12.2	0.62	20.549 CC		
263.5	263.5	263.6	263.6	0.4	0.4	-178.24	11.7	-4.8	13.2	12.3	0.91	14.548		
300.0	300.0	300.2	300.2	0.5	0.5	177.36	10.9	-5.5	12.9	11.8	1.07	12.051 ES		
400.0	399.8	400.1	399.9	0.7	0.7	156.90	6.1	-9.9	16.8	15.2	1.59	10.613 SF		
500.0	499.3	499.2	498.2	1.0	1.0	140.56	-2.5	-17.7	27.4	25.2	2.16	12.681		
600.0	598.0	597.2	594.9	1.3	1.3	132.35	-14.5	-28.7	44.3	41.5	2.82	15.724		
700.0	695.9	695.0	691.2	1.7	1.7	130.96	-27.4	-40.4	65.2	61.7	3.52	18.498		
800.0	793.6	792.7	787.3	2.1	2.1	130.88	-40.3	-52.1	86.7	82.5	4.23	20.490		
900.0	891.3	890.4	883.4	2.6	2.5	130.83	-53.1	-63.8	108.2	103.2	4.97	21.779		
1,000.0	989.0	988.0	979.5	3.0	2.8	130.80	-66.0	-75.6	129.7	123.9	5.72	22.661		
1,100.0	1,086.7	1,085.7	1,075.6	3.5	3.2	130.77	-78.8	-87.3	151.1	144.7	6.49	23.292		
1,200.0	1,184.4	1,183.3	1,171.7	3.9	3.6	130.76	-91.7	-99.0	172.6	165.4	7.26	23.766		
1,300.0	1,282.1	1,281.0	1,267.8	4.4	4.0	130.74	-104.6	-110.7	194.1	186.1	8.04	24.132		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11A-12
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 11A-12	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 #2	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 11A-12
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

