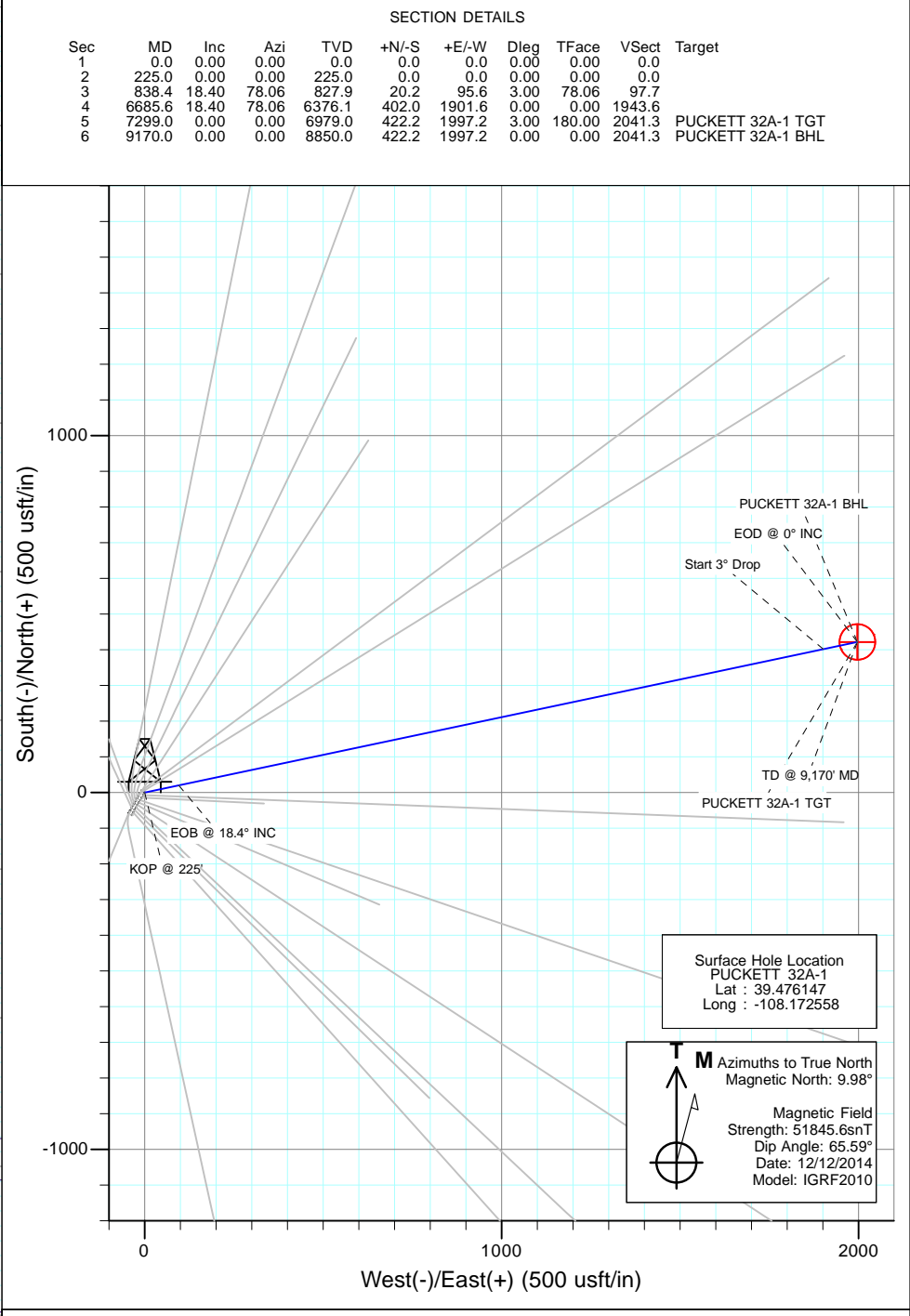
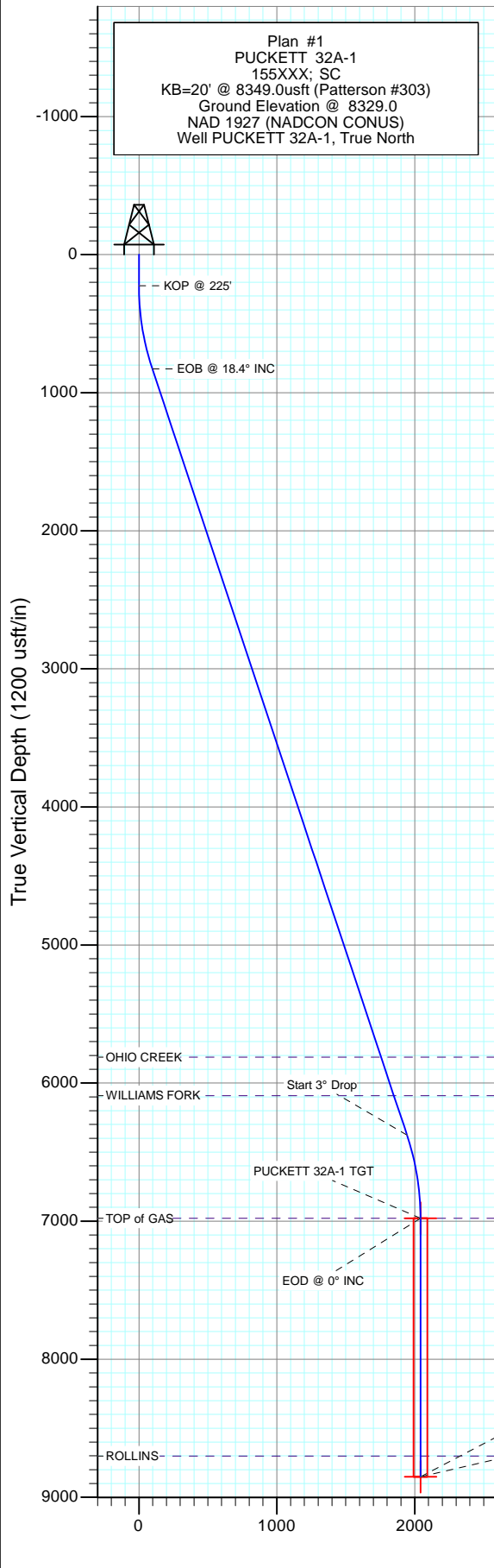


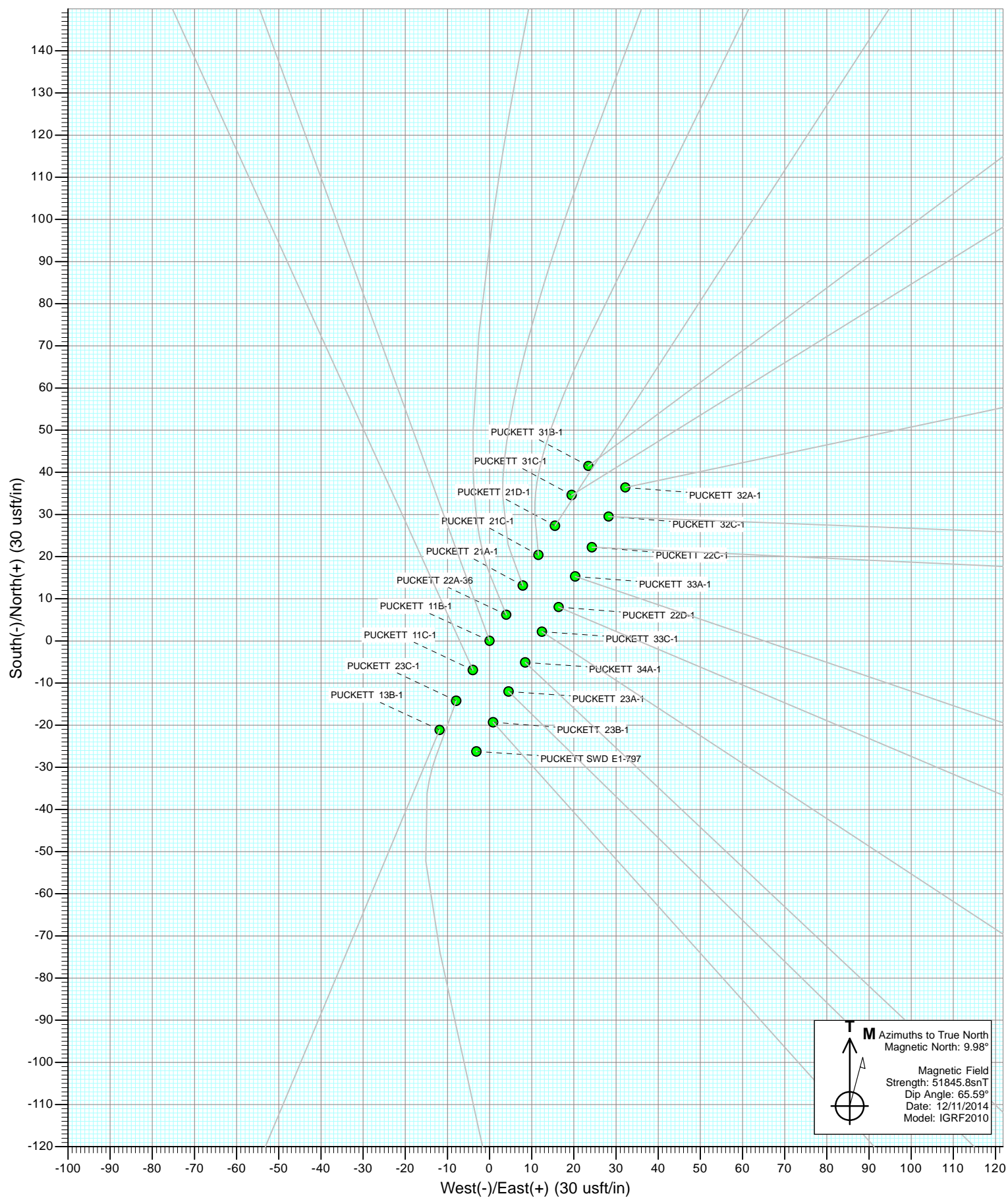


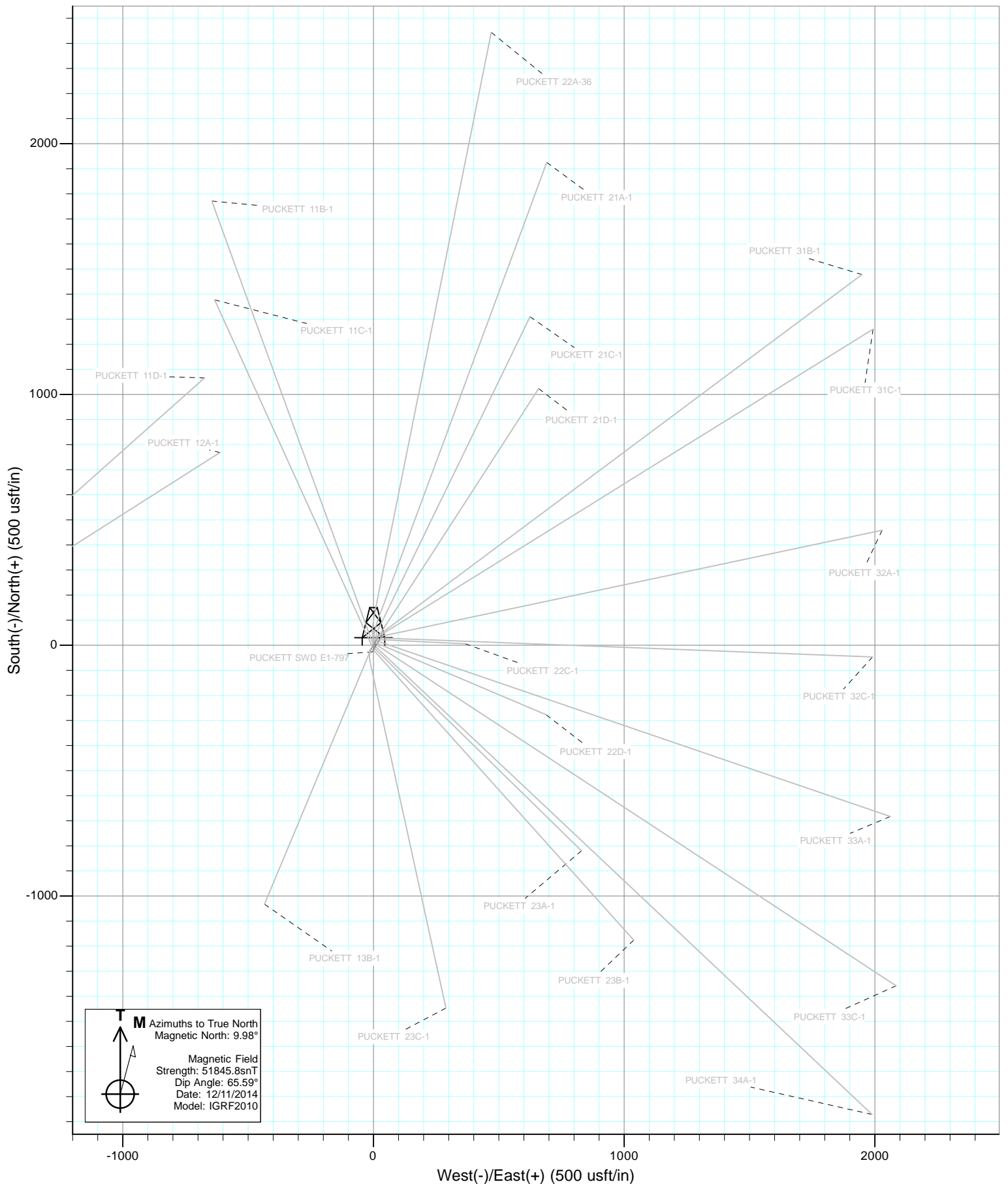
Project: Garfield County, CO
 Site: S1-T7S-R97W (Mesa E1 797)
 Well: PUCKETT 32A-1
 Wellbore: DD
 Design: Plan #1



DESIGN TARGET DETAILS

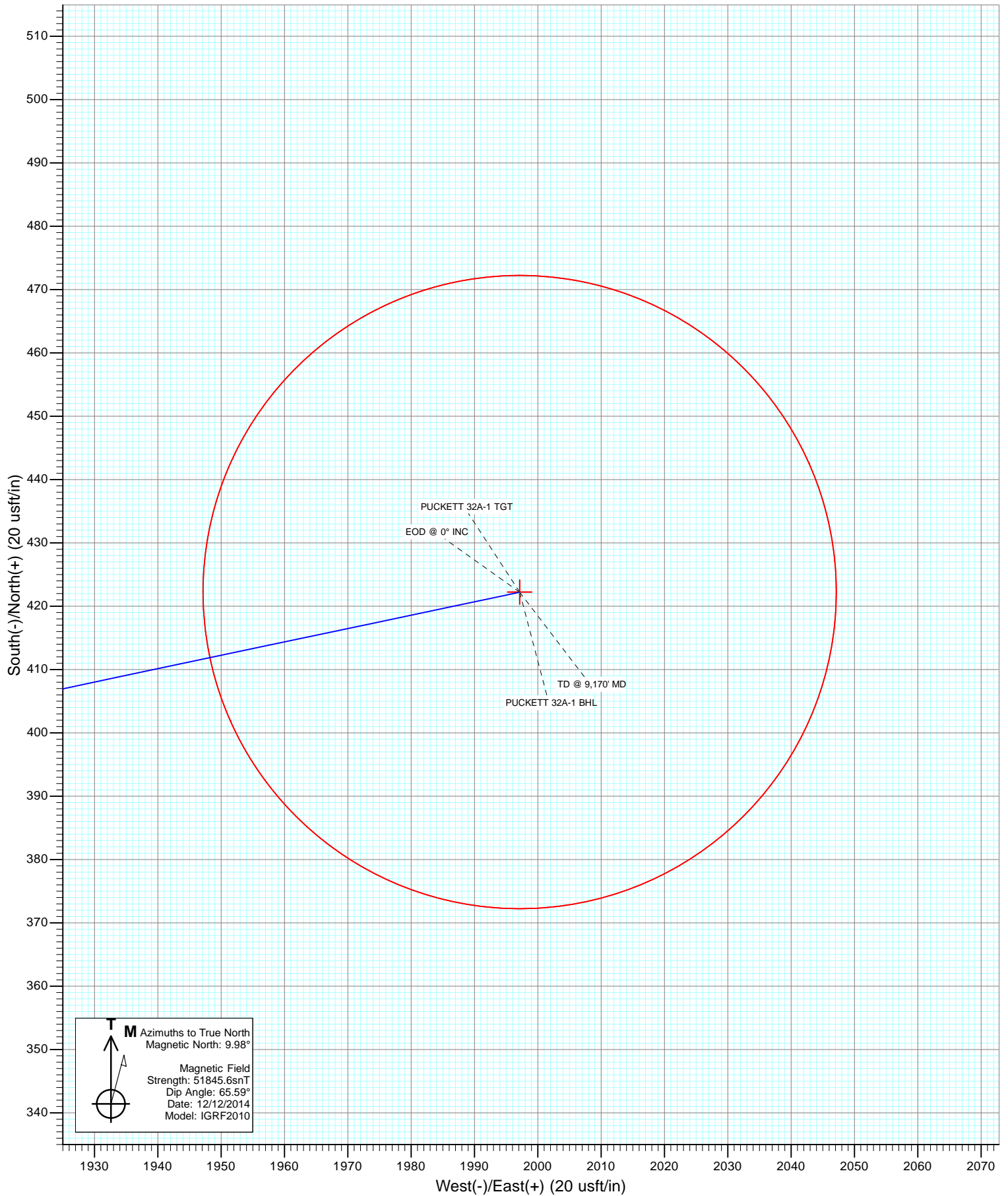
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 32A-1 TGT	422.2	1997.2	609763.03	1247688.10	39.477306	-108.165483
PUCKETT 32A-1 BHL	422.2	1997.2	609763.03	1247688.10	39.477306	-108.165483







Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 32A-1
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 32A-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		S1-T7S-R97W (Mesa E1 797)			
Site Position:		Northing:	609,370.34 usft	Latitude:	39.476064
From:	Lat/Long	Easting:	1,245,650.28 usft	Longitude:	-108.172658
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.69 °

Well	PUCKETT 32A-1					
Well Position	+N/-S	0.0 usft	Northing:	609,399.71 usft	Latitude:	39.476147
	+E/-W	0.0 usft	Easting:	1,245,679.39 usft	Longitude:	-108.172558
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,329.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	12/12/2014	9.98	65.59	51,846

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	78.06

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
225.0	0.00	0.00	225.0	0.0	0.0	0.00	0.00	0.00	0.00	
838.4	18.40	78.06	827.9	20.2	95.6	3.00	3.00	0.00	78.06	
6,685.6	18.40	78.06	6,376.1	402.0	1,901.6	0.00	0.00	0.00	0.00	
7,299.0	0.00	0.00	6,979.0	422.2	1,997.2	3.00	-3.00	0.00	180.00	PUCKETT 32A-1 TG1
9,170.0	0.00	0.00	8,850.0	422.2	1,997.2	0.00	0.00	0.00	0.00	PUCKETT 32A-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 32A-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	
225.0	0.00	0.00	225.0	0.0	0.0	0.0	0.00	0.00	KOP @ 225'
300.0	2.25	78.06	300.0	0.3	1.4	1.5	3.00	3.00	
400.0	5.25	78.06	399.8	1.7	7.8	8.0	3.00	3.00	
500.0	8.25	78.06	499.1	4.1	19.3	19.8	3.00	3.00	
600.0	11.25	78.06	597.6	7.6	35.9	36.7	3.00	3.00	
700.0	14.25	78.06	695.1	12.2	57.5	58.8	3.00	3.00	
800.0	17.25	78.06	791.4	17.8	84.0	85.9	3.00	3.00	
838.4	18.40	78.06	827.9	20.2	95.6	97.7	3.00	3.00	EOB @ 18.4° INC
900.0	18.40	78.06	886.4	24.2	114.6	117.1	0.00	0.00	
1,000.0	18.40	78.06	981.2	30.8	145.5	148.7	0.00	0.00	
1,100.0	18.40	78.06	1,076.1	37.3	176.3	180.2	0.00	0.00	
1,200.0	18.40	78.06	1,171.0	43.8	207.2	211.8	0.00	0.00	
1,300.0	18.40	78.06	1,265.9	50.3	238.1	243.4	0.00	0.00	
1,400.0	18.40	78.06	1,360.8	56.9	269.0	275.0	0.00	0.00	
1,500.0	18.40	78.06	1,455.7	63.4	299.9	306.5	0.00	0.00	
1,600.0	18.40	78.06	1,550.6	69.9	330.8	338.1	0.00	0.00	
1,700.0	18.40	78.06	1,645.4	76.5	361.7	369.7	0.00	0.00	
1,800.0	18.40	78.06	1,740.3	83.0	392.6	401.2	0.00	0.00	
1,900.0	18.40	78.06	1,835.2	89.5	423.4	432.8	0.00	0.00	
2,000.0	18.40	78.06	1,930.1	96.1	454.3	464.4	0.00	0.00	
2,100.0	18.40	78.06	2,025.0	102.6	485.2	496.0	0.00	0.00	
2,200.0	18.40	78.06	2,119.9	109.1	516.1	527.5	0.00	0.00	
2,300.0	18.40	78.06	2,214.8	115.6	547.0	559.1	0.00	0.00	
2,400.0	18.40	78.06	2,309.6	122.2	577.9	590.7	0.00	0.00	
2,500.0	18.40	78.06	2,404.5	128.7	608.8	622.2	0.00	0.00	
2,600.0	18.40	78.06	2,499.4	135.2	639.7	653.8	0.00	0.00	
2,700.0	18.40	78.06	2,594.3	141.8	670.5	685.4	0.00	0.00	
2,800.0	18.40	78.06	2,689.2	148.3	701.4	716.9	0.00	0.00	
2,900.0	18.40	78.06	2,784.1	154.8	732.3	748.5	0.00	0.00	
3,000.0	18.40	78.06	2,879.0	161.4	763.2	780.1	0.00	0.00	
3,100.0	18.40	78.06	2,973.8	167.9	794.1	811.7	0.00	0.00	
3,200.0	18.40	78.06	3,068.7	174.4	825.0	843.2	0.00	0.00	
3,300.0	18.40	78.06	3,163.6	181.0	855.9	874.8	0.00	0.00	
3,400.0	18.40	78.06	3,258.5	187.5	886.8	906.4	0.00	0.00	
3,500.0	18.40	78.06	3,353.4	194.0	917.6	937.9	0.00	0.00	
3,600.0	18.40	78.06	3,448.3	200.5	948.5	969.5	0.00	0.00	
3,700.0	18.40	78.06	3,543.2	207.1	979.4	1,001.1	0.00	0.00	
3,800.0	18.40	78.06	3,638.0	213.6	1,010.3	1,032.6	0.00	0.00	
3,900.0	18.40	78.06	3,732.9	220.1	1,041.2	1,064.2	0.00	0.00	
4,000.0	18.40	78.06	3,827.8	226.7	1,072.1	1,095.8	0.00	0.00	
4,100.0	18.40	78.06	3,922.7	233.2	1,103.0	1,127.4	0.00	0.00	
4,200.0	18.40	78.06	4,017.6	239.7	1,133.9	1,158.9	0.00	0.00	
4,300.0	18.40	78.06	4,112.5	246.3	1,164.7	1,190.5	0.00	0.00	
4,400.0	18.40	78.06	4,207.4	252.8	1,195.6	1,222.1	0.00	0.00	
4,500.0	18.40	78.06	4,302.2	259.3	1,226.5	1,253.6	0.00	0.00	
4,600.0	18.40	78.06	4,397.1	265.8	1,257.4	1,285.2	0.00	0.00	
4,700.0	18.40	78.06	4,492.0	272.4	1,288.3	1,316.8	0.00	0.00	
4,800.0	18.40	78.06	4,586.9	278.9	1,319.2	1,348.3	0.00	0.00	
4,900.0	18.40	78.06	4,681.8	285.4	1,350.1	1,379.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: Caerus Oil & Gas (NAD 27)
Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 32A-1
Wellbore: DD
Design: Plan #1

Local Co-ordinate Reference: Well PUCKETT 32A-1
TVD Reference: KB=20' @ 8349.0usft (Patterson #303)
MD Reference: KB=20' @ 8349.0usft (Patterson #303)
North Reference: True
Survey Calculation Method: Minimum Curvature

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	18.40	78.06	4,776.7	292.0	1,381.0	1,411.5	0.00	0.00	
5,100.0	18.40	78.06	4,871.6	298.5	1,411.8	1,443.1	0.00	0.00	
5,200.0	18.40	78.06	4,966.4	305.0	1,442.7	1,474.6	0.00	0.00	
5,300.0	18.40	78.06	5,061.3	311.6	1,473.6	1,506.2	0.00	0.00	
5,400.0	18.40	78.06	5,156.2	318.1	1,504.5	1,537.8	0.00	0.00	
5,500.0	18.40	78.06	5,251.1	324.6	1,535.4	1,569.3	0.00	0.00	
5,600.0	18.40	78.06	5,346.0	331.2	1,566.3	1,600.9	0.00	0.00	
5,700.0	18.40	78.06	5,440.9	337.7	1,597.2	1,632.5	0.00	0.00	
5,800.0	18.40	78.06	5,535.8	344.2	1,628.1	1,664.0	0.00	0.00	
5,900.0	18.40	78.06	5,630.7	350.7	1,658.9	1,695.6	0.00	0.00	
6,000.0	18.40	78.06	5,725.5	357.3	1,689.8	1,727.2	0.00	0.00	
6,091.1	18.40	78.06	5,812.0	363.2	1,718.0	1,756.0	0.00	0.00	OHIO CREEK
6,100.0	18.40	78.06	5,820.4	363.8	1,720.7	1,758.8	0.00	0.00	
6,200.0	18.40	78.06	5,915.3	370.3	1,751.6	1,790.3	0.00	0.00	
6,300.0	18.40	78.06	6,010.2	376.9	1,782.5	1,821.9	0.00	0.00	
6,384.1	18.40	78.06	6,090.0	382.4	1,808.5	1,848.5	0.00	0.00	WILLIAMS FORK
6,400.0	18.40	78.06	6,105.1	383.4	1,813.4	1,853.5	0.00	0.00	
6,500.0	18.40	78.06	6,200.0	389.9	1,844.3	1,885.0	0.00	0.00	
6,600.0	18.40	78.06	6,294.9	396.5	1,875.2	1,916.6	0.00	0.00	
6,685.6	18.40	78.06	6,376.1	402.0	1,901.6	1,943.6	0.00	0.00	Start 3° Drop
6,700.0	17.97	78.06	6,389.8	403.0	1,906.0	1,948.1	3.00	-3.00	
6,800.0	14.97	78.06	6,485.6	408.8	1,933.7	1,976.5	3.00	-3.00	
6,900.0	11.97	78.06	6,582.9	413.7	1,956.5	1,999.8	3.00	-3.00	
7,000.0	8.97	78.06	6,681.2	417.4	1,974.3	2,017.9	3.00	-3.00	
7,100.0	5.97	78.06	6,780.3	420.1	1,987.0	2,030.9	3.00	-3.00	
7,200.0	2.97	78.06	6,880.0	421.7	1,994.6	2,038.7	3.00	-3.00	
7,299.0	0.00	0.00	6,979.0	422.2	1,997.2	2,041.3	3.00	-3.00	EOD @ 0° INC - TOP of GAS
7,400.0	0.00	0.00	7,080.0	422.2	1,997.2	2,041.3	0.00	0.00	
7,500.0	0.00	0.00	7,180.0	422.2	1,997.2	2,041.3	0.00	0.00	
7,600.0	0.00	0.00	7,280.0	422.2	1,997.2	2,041.3	0.00	0.00	
7,700.0	0.00	0.00	7,380.0	422.2	1,997.2	2,041.3	0.00	0.00	
7,800.0	0.00	0.00	7,480.0	422.2	1,997.2	2,041.3	0.00	0.00	
7,900.0	0.00	0.00	7,580.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,000.0	0.00	0.00	7,680.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,100.0	0.00	0.00	7,780.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,200.0	0.00	0.00	7,880.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,300.0	0.00	0.00	7,980.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,400.0	0.00	0.00	8,080.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,500.0	0.00	0.00	8,180.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,600.0	0.00	0.00	8,280.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,700.0	0.00	0.00	8,380.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,800.0	0.00	0.00	8,480.0	422.2	1,997.2	2,041.3	0.00	0.00	
8,900.0	0.00	0.00	8,580.0	422.2	1,997.2	2,041.3	0.00	0.00	
9,000.0	0.00	0.00	8,680.0	422.2	1,997.2	2,041.3	0.00	0.00	
9,020.0	0.00	0.00	8,700.0	422.2	1,997.2	2,041.3	0.00	0.00	ROLLINS
9,100.0	0.00	0.00	8,780.0	422.2	1,997.2	2,041.3	0.00	0.00	
9,170.0	0.00	0.00	8,850.0	422.2	1,997.2	2,041.3	0.00	0.00	TD @ 9,170' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 32A-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 32A-1 TGT	0.00	0.00	6,979.0	422.2	1,997.2	609,763.03	1,247,688.10	39.477306	-108.165483
- plan hits target center									
- Point									
PUCKETT 32A-1 BHL	0.00	0.00	8,850.0	422.2	1,997.2	609,763.03	1,247,688.10	39.477306	-108.165483
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,091.1	5,812.0	OHIO CREEK				
6,384.1	6,090.0	WILLIAMS FORK				
7,299.0	6,979.0	TOP of GAS				
9,020.0	8,700.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
225.0	225.0	0.0	0.0	KOP @ 225'	
838.4	827.9	20.2	95.6	EOB @ 18.4° INC	
6,685.6	6,376.1	402.0	1,901.6	Start 3° Drop	
7,299.0	6,979.0	422.2	1,997.2	EOD @ 0° INC	
9,170.0	8,850.0	422.2	1,997.2	TD @ 9,170' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 32A-1

DD

Plan #1

Anticollision Report

16 December, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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	12/12/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	9,170.0	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S1-T7S-R97W (Mesa E1 797)						
PUCKETT 11B-1 - DD - Plan #1	200.0	200.0	48.6	48.0	77.211	CC
PUCKETT 11B-1 - DD - Plan #1	300.0	301.1	48.6	47.5	43.783	ES
PUCKETT 11B-1 - DD - Plan #1	500.0	499.8	62.3	60.0	26.273	SF
PUCKETT 11C-1 - DD - Plan #1	200.0	200.0	56.4	55.8	89.646	CC, ES
PUCKETT 11C-1 - DD - Plan #1	600.0	598.1	86.7	83.8	29.410	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	72.5	71.8	115.125	CC, ES
PUCKETT 13B-1 - DD - Plan #1	600.0	574.6	138.8	135.9	47.232	SF
PUCKETT 21A-1 - HZ - Plan #1	200.0	200.0	33.6	33.0	53.463	CC, ES
PUCKETT 21A-1 - HZ - Plan #1	500.0	499.8	50.3	48.0	21.757	SF
PUCKETT 21C-1 - DD - Plan #1	200.0	200.0	26.1	25.5	41.467	CC, ES
PUCKETT 21C-1 - DD - Plan #1	500.0	500.0	42.9	40.6	18.633	SF
PUCKETT 21D-1 - DD - Plan #1	200.0	200.0	19.0	18.3	30.150	CC, ES
PUCKETT 21D-1 - DD - Plan #1	400.0	399.8	26.7	25.0	15.742	SF
PUCKETT 22A-36 - DD - Plan #1	200.0	200.0	41.3	40.7	65.700	CC, ES
PUCKETT 22A-36 - DD - Plan #1	600.0	599.9	72.5	69.5	24.346	SF
PUCKETT 22C-1 - DD - Plan #1	200.0	200.0	16.2	15.6	25.811	CC, ES
PUCKETT 22C-1 - DD - Plan #1	400.0	399.8	22.3	20.7	13.484	SF
PUCKETT 22D-1 - DD - Plan #1	200.0	200.0	32.5	31.9	51.641	CC, ES
PUCKETT 22D-1 - DD - Plan #1	500.0	499.1	47.9	45.6	21.293	SF
PUCKETT 23A-1 - DD - Plan #1	200.0	200.0	55.8	55.1	88.621	CC, ES
PUCKETT 23A-1 - DD - Plan #1	700.0	696.3	103.2	99.7	29.768	SF
PUCKETT 23B-1 - DD - Plan #1	200.0	200.0	63.9	63.3	101.573	CC, ES
PUCKETT 23B-1 - DD - Plan #1	800.0	790.5	136.1	131.9	32.181	SF
PUCKETT 23C-1 - DD - Plan #1	200.0	200.0	64.6	63.9	102.596	CC, ES
PUCKETT 23C-1 - DD - Plan #1	600.0	585.9	114.4	111.5	39.621	SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	10.1	9.5	16.101	CC
PUCKETT 31B-1 - DD - Plan #1	300.0	300.2	10.3	9.2	9.445	ES
PUCKETT 31B-1 - DD - Plan #1	400.0	400.2	12.7	11.1	8.050	SF
PUCKETT 31C-1 - DD - Plan #1	200.0	200.0	12.8	12.2	20.389	CC, ES
PUCKETT 31C-1 - DD - Plan #1	600.0	602.2	22.6	19.8	7.940	SF
PUCKETT 32C-1 - DD - Plan #1	200.0	200.0	8.0	7.3	12.650	CC, ES
PUCKETT 32C-1 - DD - Plan #1	3,000.0	2,997.4	199.5	168.1	6.354	SF
PUCKETT 33A-1 - DD - Plan #1	200.0	200.0	24.2	23.6	38.480	CC, ES
PUCKETT 33A-1 - DD - Plan #1	1,600.0	1,591.1	198.4	184.4	14.127	SF
PUCKETT 33C-1 - DD - Plan #1	200.0	200.0	39.5	38.9	62.800	CC, ES
PUCKETT 33C-1 - DD - Plan #1	1,100.0	1,080.3	176.2	168.3	22.071	SF
PUCKETT 34A-1 - DD - Plan #1	200.0	200.0	47.8	47.2	75.971	CC, ES
PUCKETT 34A-1 - DD - Plan #1	700.0	696.2	94.7	91.3	27.290	SF
PUCKETT SWD E1-797 - VH - Plan #1	200.0	200.0	71.9	71.3	114.235	CC, ES
PUCKETT SWD E1-797 - VH - Plan #1	700.0	695.1	119.2	115.7	33.926	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 11B-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-138.53	-36.4	-32.2	48.6					
100.0	100.0	100.0	100.0	0.1	0.1	-138.53	-36.4	-32.2	48.6	48.4	0.18	270.239		
200.0	200.0	200.0	200.0	0.3	0.3	-138.53	-36.4	-32.2	48.6	48.0	0.63	77.211 CC		
265.2	265.1	265.9	265.9	0.5	0.5	145.17	-35.3	-32.6	48.7	47.8	0.94	51.920		
300.0	300.0	301.1	301.1	0.5	0.5	147.23	-33.9	-33.1	48.6	47.5	1.11	43.783 ES		
400.0	399.8	401.3	401.0	0.8	0.8	159.12	-26.4	-35.8	51.9	50.2	1.69	30.652		
500.0	499.1	499.8	498.6	1.0	1.1	174.68	-14.3	-40.2	62.3	60.0	2.37	26.273 SF		
600.0	597.6	595.6	592.8	1.4	1.4	-171.74	2.0	-46.1	82.4	79.3	3.08	26.764		
700.0	695.1	688.1	682.8	1.8	1.8	-162.05	21.9	-53.4	112.0	108.2	3.78	29.609		
800.0	791.4	777.0	768.3	2.3	2.2	-155.45	44.9	-61.8	150.1	145.6	4.50	33.342		
900.0	886.4	866.5	853.9	2.9	2.7	-151.60	69.5	-70.7	193.5	188.3	5.17	37.427		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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													S1-T7S-R97W (Mesa E1 797) - PUCKETT 11C-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	-140.18	-43.3	-36.1	56.4								
100.0	100.0	100.0	100.0	0.1	0.1	-140.18	-43.3	-36.1	56.4	56.2	0.18	313.762					
200.0	200.0	200.0	200.0	0.3	0.3	-140.18	-43.3	-36.1	56.4	55.8	0.63	89.646	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	142.65	-43.3	-36.1	57.6	56.5	1.11	52.017					
400.0	399.8	400.6	400.6	0.8	0.8	147.49	-42.0	-36.8	62.4	60.7	1.66	37.658					
500.0	499.1	500.4	500.2	1.0	1.0	157.49	-36.0	-39.5	71.2	68.9	2.28	31.268					
600.0	597.6	598.1	597.2	1.4	1.3	169.23	-25.6	-44.2	86.7	83.8	2.95	29.410	SF				
700.0	695.1	692.8	690.5	1.8	1.6	179.76	-11.2	-50.7	110.8	107.2	3.63	30.490					
800.0	791.4	783.8	779.4	2.3	1.9	-171.98	6.6	-58.8	143.8	139.5	4.32	33.276					
900.0	886.4	874.2	867.2	2.9	2.3	-166.25	26.4	-67.8	183.4	178.5	4.92	37.304					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 13B-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	-142.57	-57.5	-44.0	72.5					
100.0	100.0	100.0	100.0	0.1	0.1	-142.57	-57.5	-44.0	72.5	72.3	0.18	402.937		
200.0	200.0	200.0	200.0	0.3	0.3	-142.57	-57.5	-44.0	72.5	71.8	0.63	115.125 CC, ES		
300.0	300.0	296.3	296.3	0.5	0.5	139.53	-59.8	-45.0	76.0	74.9	1.09	69.744		
400.0	399.8	391.6	391.3	0.8	0.7	140.74	-66.4	-47.7	88.3	86.6	1.65	53.526		
500.0	499.1	484.7	483.7	1.0	1.0	142.32	-77.1	-52.2	109.3	107.0	2.27	48.076		
600.0	597.6	574.6	572.3	1.4	1.3	143.73	-91.3	-58.2	138.8	135.9	2.94	47.232 SF		
700.0	695.1	662.9	658.4	1.8	1.7	144.78	-109.1	-65.6	176.6	172.9	3.66	48.291		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21A-1 - HZ - 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	-133.82	-23.3	-24.3	33.6					
100.0	100.0	100.0	100.0	0.1	0.1	-133.82	-23.3	-24.3	33.6	33.5	0.18	187.121		
200.0	200.0	200.0	200.0	0.3	0.3	-133.82	-23.3	-24.3	33.6	33.0	0.63	53.463	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	149.37	-23.3	-24.3	34.9	33.8	1.11	31.375		
400.0	399.8	400.3	400.3	0.8	0.8	157.63	-20.8	-25.2	39.9	38.3	1.68	23.779		
500.0	499.1	499.8	499.4	1.0	1.0	171.40	-13.5	-27.8	50.3	48.0	2.31	21.757	SF	
600.0	597.6	600.1	599.0	1.4	1.3	-176.02	-1.6	-29.1	65.7	62.7	2.95	22.247		
700.0	695.1	699.7	697.3	1.8	1.6	-166.12	14.6	-27.5	85.1	81.5	3.60	23.642		
800.0	791.4	798.6	793.9	2.3	1.9	-158.32	34.7	-23.1	108.5	104.2	4.30	25.244		
900.0	886.4	896.6	888.7	2.9	2.4	-152.14	58.8	-15.9	135.0	130.0	5.02	26.927		
1,000.0	981.2	993.8	981.3	3.5	2.9	-146.49	86.5	-6.1	161.5	155.7	5.84	27.655		
1,100.0	1,076.1	1,089.1	1,071.7	4.1	3.4	-142.03	115.0	4.4	188.8	182.0	6.78	27.846		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21C-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	-127.85	-16.0	-20.6	26.1					
100.0	100.0	100.0	100.0	0.1	0.1	-127.85	-16.0	-20.6	26.1	25.9	0.18	145.133		
200.0	200.0	200.0	200.0	0.3	0.3	-127.85	-16.0	-20.6	26.1	25.5	0.63	41.467	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	155.42	-16.0	-20.6	27.4	26.3	1.12	24.557		
400.0	399.8	400.1	400.1	0.8	0.8	161.05	-15.4	-20.7	33.2	31.5	1.69	19.682		
500.0	499.1	500.0	499.9	1.0	1.0	172.50	-10.1	-21.1	42.9	40.6	2.30	18.633	SF	
600.0	597.6	600.1	599.4	1.4	1.2	-175.64	0.0	-21.1	57.6	54.6	2.92	19.681		
700.0	695.1	700.6	698.9	1.8	1.5	-166.50	13.9	-17.6	75.2	71.7	3.55	21.189		
800.0	791.4	800.9	797.3	2.3	1.9	-159.33	31.5	-10.5	95.7	91.5	4.23	22.641		
900.0	886.4	898.4	892.4	2.9	2.2	-154.22	51.1	-1.0	118.8	113.9	4.90	24.262		
1,000.0	981.2	995.2	986.8	3.5	2.6	-150.90	70.7	8.5	142.8	137.2	5.61	25.444		
1,100.0	1,076.1	1,092.1	1,081.1	4.1	3.1	-148.54	90.2	18.0	167.0	160.7	6.39	26.152		
1,200.0	1,171.0	1,188.9	1,175.4	4.8	3.5	-146.78	109.8	27.5	191.5	184.3	7.20	26.582		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21D-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	-118.63	-9.1	-16.7	19.0					
100.0	100.0	100.0	100.0	0.1	0.1	-118.63	-9.1	-16.7	19.0	18.8	0.18	105.526		
200.0	200.0	200.0	200.0	0.3	0.3	-118.63	-9.1	-16.7	19.0	18.3	0.63	30.150 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	164.48	-9.1	-16.7	20.4	19.3	1.12	18.173		
400.0	399.8	399.8	399.8	0.8	0.8	168.19	-9.1	-16.7	26.7	25.0	1.70	15.742 SF		
500.0	499.1	500.6	500.5	1.0	1.0	174.32	-6.9	-15.2	36.3	34.0	2.30	15.793		
600.0	597.6	601.3	601.0	1.4	1.2	-177.48	-0.2	-10.9	47.6	44.7	2.89	16.435		
700.0	695.1	701.8	700.6	1.8	1.5	-169.15	10.9	-3.7	61.5	58.0	3.50	17.546		
800.0	791.4	801.0	798.2	2.3	1.8	-161.92	25.8	5.9	78.9	74.7	4.16	18.969		
900.0	886.4	898.4	893.9	2.9	2.2	-157.88	41.1	15.8	100.5	95.7	4.78	21.014		
1,000.0	981.2	995.8	989.5	3.5	2.5	-155.40	56.4	25.6	122.8	117.4	5.42	22.663		
1,100.0	1,076.1	1,093.2	1,085.2	4.1	2.9	-153.68	71.6	35.5	145.3	139.1	6.11	23.791		
1,200.0	1,171.0	1,190.6	1,180.8	4.8	3.3	-152.42	86.9	45.4	167.8	161.0	6.83	24.581		
1,300.0	1,265.9	1,287.9	1,276.5	5.4	3.6	-151.46	102.2	55.3	190.4	182.8	7.57	25.151		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22A-36 - 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	-136.94	-30.2	-28.2	41.3					
100.0	100.0	100.0	100.0	0.1	0.1	-136.94	-30.2	-28.2	41.3	41.2	0.18	229.951		
200.0	200.0	200.0	200.0	0.3	0.3	-136.94	-30.2	-28.2	41.3	40.7	0.63	65.700	CC, ES	
300.0	300.0	300.2	300.2	0.5	0.5	146.32	-30.1	-28.3	42.5	41.4	1.11	38.302		
400.0	399.8	400.6	400.5	0.8	0.8	155.18	-26.4	-29.8	46.9	45.2	1.67	28.029		
500.0	499.1	500.2	499.7	1.0	1.0	169.07	-17.9	-33.1	56.8	54.5	2.32	24.552		
600.0	597.6	599.9	598.4	1.4	1.3	-177.73	-4.6	-35.5	72.5	69.5	2.98	24.346	SF	
700.0	695.1	698.4	695.3	1.8	1.6	-167.05	13.2	-36.1	93.6	89.9	3.65	25.663		
800.0	791.4	795.3	789.6	2.3	2.0	-158.74	35.2	-34.8	120.1	115.8	4.36	27.543		
900.0	886.4	890.5	881.2	2.9	2.5	-152.38	61.2	-31.8	151.0	146.0	5.08	29.728		
1,000.0	981.2	984.7	970.4	3.5	3.0	-146.86	91.0	-27.1	183.1	177.2	5.90	31.053		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22C-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	-150.88	-14.2	-7.9	16.2					
100.0	100.0	100.0	100.0	0.1	0.1	-150.88	-14.2	-7.9	16.2	16.1	0.18	90.338		
200.0	200.0	200.0	200.0	0.3	0.3	-150.88	-14.2	-7.9	16.2	15.6	0.63	25.811 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	134.72	-14.2	-7.9	17.2	16.1	1.10	15.680		
400.0	399.8	399.8	399.8	0.8	0.8	146.64	-14.2	-7.9	22.3	20.7	1.66	13.484 SF		
500.0	499.1	499.1	499.1	1.0	1.0	157.87	-14.2	-7.9	32.8	30.5	2.28	14.395		
600.0	597.6	597.6	597.6	1.4	1.2	165.23	-14.2	-7.9	48.9	46.0	2.91	16.798		
700.0	695.1	698.3	698.3	1.8	1.4	168.90	-14.3	-5.4	68.3	64.8	3.52	19.391		
800.0	791.4	796.1	795.9	2.3	1.6	170.63	-14.6	0.0	90.2	86.1	4.12	21.907		
900.0	886.4	892.6	892.3	2.9	1.8	172.02	-14.8	5.2	116.2	111.6	4.62	25.169		
1,000.0	981.2	989.0	988.5	3.5	2.1	172.94	-15.1	10.5	142.7	137.6	5.07	28.164		
1,100.0	1,076.1	1,085.4	1,084.8	4.1	2.3	173.58	-15.3	15.8	169.2	163.6	5.53	30.577		
1,200.0	1,171.0	1,181.8	1,181.1	4.8	2.5	174.04	-15.5	21.1	195.6	189.6	6.01	32.541		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22D-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	-150.90	-28.4	-15.8	32.5					
100.0	100.0	100.0	100.0	0.1	0.1	-150.90	-28.4	-15.8	32.5	32.3	0.18	180.742		
200.0	200.0	200.0	200.0	0.3	0.3	-150.90	-28.4	-15.8	32.5	31.9	0.63	51.641 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	132.92	-28.4	-15.8	33.5	32.4	1.10	30.489		
400.0	399.8	399.8	399.8	0.8	0.8	140.02	-28.4	-15.8	38.2	36.6	1.64	23.348		
500.0	499.1	499.1	499.1	1.0	1.0	148.93	-28.4	-15.8	47.9	45.6	2.25	21.293 SF		
600.0	597.6	599.3	599.2	1.4	1.2	154.77	-29.4	-13.4	61.7	58.8	2.86	21.544		
700.0	695.1	699.8	699.4	1.8	1.4	156.59	-32.5	-6.2	77.9	74.4	3.47	22.413		
800.0	791.4	798.5	797.5	2.3	1.6	157.00	-36.9	4.3	96.9	92.8	4.12	23.492		
900.0	886.4	895.8	894.2	2.9	1.9	158.07	-41.3	14.7	119.7	115.0	4.71	25.385		
1,000.0	981.2	993.1	990.8	3.5	2.2	158.92	-45.8	25.2	142.9	137.6	5.27	27.120		
1,100.0	1,076.1	1,090.4	1,087.3	4.1	2.5	159.54	-50.2	35.6	166.1	160.2	5.84	28.428		
1,200.0	1,171.0	1,187.6	1,183.9	4.8	2.7	160.00	-54.6	46.1	189.3	182.8	6.43	29.432		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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													S1-T7S-R97W (Mesa E1 797) - PUCKETT 23A-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	-150.26	-48.4	-27.7	55.8								
100.0	100.0	100.0	100.0	0.1	0.1	-150.26	-48.4	-27.7	55.8	55.6	0.18	310.174					
200.0	200.0	200.0	200.0	0.3	0.3	-150.26	-48.4	-27.7	55.8	55.1	0.63	88.621	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	132.76	-48.4	-27.7	56.8	55.7	1.10	51.691					
400.0	399.8	399.8	399.8	0.8	0.8	137.15	-48.4	-27.7	61.4	59.8	1.63	37.681					
500.0	499.1	499.1	499.1	1.0	1.0	143.48	-48.4	-27.7	70.5	68.3	2.22	31.679					
600.0	597.6	597.8	597.8	1.4	1.2	148.38	-50.2	-25.9	84.6	81.7	2.84	29.793					
700.0	695.1	696.3	696.0	1.8	1.4	150.29	-55.5	-20.5	103.2	99.7	3.47	29.768	SF				
800.0	791.4	794.2	793.1	2.3	1.6	150.29	-64.2	-11.5	125.9	121.8	4.15	30.352					
900.0	886.4	891.2	888.5	2.9	1.9	149.39	-76.1	0.7	151.8	147.0	4.82	31.493					
1,000.0	981.2	987.6	983.3	3.5	2.3	148.59	-88.7	13.5	178.0	172.5	5.52	32.271					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23B-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	-150.65	-55.7	-31.3	63.9					
100.0	100.0	100.0	100.0	0.1	0.1	-150.65	-55.7	-31.3	63.9	63.7	0.18	355.505		
200.0	200.0	200.0	200.0	0.3	0.3	-150.65	-55.7	-31.3	63.9	63.3	0.63	101.573 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	132.24	-55.7	-31.3	64.9	63.8	1.10	59.131		
400.0	399.8	399.8	399.8	0.8	0.8	136.14	-55.7	-31.3	69.5	67.8	1.63	42.720		
500.0	499.1	498.4	498.4	1.0	1.0	140.04	-57.6	-29.6	78.8	76.6	2.19	35.950		
600.0	597.6	596.7	596.3	1.4	1.2	141.79	-63.2	-24.6	93.2	90.4	2.80	33.327		
700.0	695.1	694.1	693.0	1.8	1.4	141.94	-72.5	-16.2	112.3	108.8	3.47	32.398		
800.0	791.4	790.5	787.7	2.3	1.7	141.11	-85.3	-4.8	136.1	131.9	4.23	32.181 SF		
900.0	886.4	885.7	880.4	2.9	2.1	139.90	-101.4	9.6	163.8	158.8	5.03	32.549		
1,000.0	981.2	981.5	973.4	3.5	2.5	138.73	-118.8	25.3	192.0	186.2	5.88	32.640		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23C-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	-141.62	-50.6	-40.1	64.6					
100.0	100.0	100.0	100.0	0.1	0.1	-141.62	-50.6	-40.1	64.6	64.4	0.18	359.086		
200.0	200.0	200.0	200.0	0.3	0.3	-141.62	-50.6	-40.1	64.6	63.9	0.63	102.596	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	141.11	-50.6	-40.1	65.7	64.6	1.11	59.430		
400.0	399.8	396.4	396.3	0.8	0.7	143.46	-52.9	-40.9	73.3	71.6	1.63	44.804		
500.0	499.1	491.2	490.9	1.0	0.9	145.78	-59.6	-43.4	89.7	87.5	2.23	40.162		
600.0	597.6	585.9	584.9	1.4	1.2	147.33	-70.6	-46.7	114.4	111.5	2.89	39.621	SF	
700.0	695.1	680.9	678.7	1.8	1.5	147.39	-85.3	-47.5	144.2	140.6	3.55	40.624		
800.0	791.4	774.3	770.3	2.3	1.8	146.53	-103.2	-45.4	178.4	174.1	4.28	41.720		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 31B-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		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	-59.73	5.1	-8.8	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	-59.73	5.1	-8.8	10.1	10.0	0.18	56.352		
200.0	200.0	200.0	200.0	0.3	0.3	-59.73	5.1	-8.8	10.1	9.5	0.63	16.101 CC		
247.7	247.7	247.8	247.8	0.4	0.4	-136.39	5.5	-8.3	10.2	9.4	0.85	12.055		
300.0	300.0	300.2	300.1	0.5	0.5	-129.82	6.7	-6.6	10.3	9.2	1.09	9.445 ES		
400.0	399.8	400.2	399.8	0.8	0.8	-118.10	11.4	-0.3	12.7	11.1	1.58	8.050 SF		
500.0	499.1	500.0	498.8	1.0	1.1	-109.25	19.2	10.1	17.7	15.6	2.14	8.283		
600.0	597.6	599.6	596.7	1.4	1.4	-104.09	30.0	24.6	25.1	22.3	2.82	8.914		
700.0	695.1	698.8	693.1	1.8	1.9	-101.25	43.8	43.2	34.8	31.2	3.65	9.532		
800.0	791.4	797.6	787.9	2.3	2.4	-99.67	60.6	65.6	46.7	42.1	4.66	10.029		
900.0	886.4	895.9	880.6	2.9	3.0	-98.07	80.1	91.7	60.6	54.8	5.83	10.401		
1,000.0	981.2	994.5	972.3	3.5	3.7	-94.77	101.7	120.7	75.7	68.6	7.08	10.690		
1,100.0	1,076.1	1,093.2	1,064.1	4.1	4.4	-92.47	123.5	149.9	91.0	82.6	8.35	10.896		
1,200.0	1,171.0	1,192.0	1,155.9	4.8	5.1	-90.83	145.2	179.0	106.3	96.7	9.62	11.051		
1,300.0	1,265.9	1,290.8	1,247.8	5.4	5.8	-89.61	167.0	208.2	121.8	110.9	10.90	11.171		
1,400.0	1,360.8	1,389.5	1,339.6	6.1	6.5	-88.66	188.7	237.3	137.3	125.1	12.18	11.267		
1,500.0	1,455.7	1,488.3	1,431.4	6.7	7.2	-87.91	210.5	266.5	152.8	139.3	13.47	11.346		
1,600.0	1,550.6	1,587.1	1,523.3	7.3	8.0	-87.29	232.3	295.7	168.3	153.6	14.75	11.412		
1,700.0	1,645.4	1,685.9	1,615.1	8.0	8.7	-86.78	254.0	324.8	183.9	167.8	16.03	11.468		
1,800.0	1,740.3	1,784.6	1,706.9	8.6	9.4	-86.35	275.8	354.0	199.4	182.1	17.32	11.516		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 31C-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				Total		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	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-98.12	-1.8	-12.7	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	-98.12	-1.8	-12.7	12.8	12.7	0.18	71.360		
200.0	200.0	200.0	200.0	0.3	0.3	-98.12	-1.8	-12.7	12.8	12.2	0.63	20.389 CC, ES		
300.0	300.0	300.3	300.3	0.5	0.5	-175.48	-1.5	-12.1	13.7	12.6	1.12	12.241		
400.0	399.8	401.0	400.8	0.8	0.8	-169.28	1.3	-7.6	15.5	13.8	1.67	9.270		
500.0	499.1	501.6	500.9	1.0	1.0	-159.21	6.9	1.4	18.3	16.1	2.24	8.150		
600.0	597.6	602.2	600.2	1.4	1.3	-148.24	15.3	14.8	22.6	19.8	2.85	7.940 SF		
700.0	695.1	702.6	698.4	1.8	1.7	-138.51	26.4	32.6	28.8	25.3	3.56	8.102		
800.0	791.4	802.9	795.2	2.3	2.2	-130.74	40.1	54.8	37.0	32.6	4.44	8.333		
900.0	886.4	903.0	890.4	2.9	2.8	-123.93	56.5	81.2	46.6	41.1	5.51	8.458		
1,000.0	981.2	1,002.6	983.5	3.5	3.4	-115.29	75.1	111.1	56.1	49.3	6.80	8.255		
1,100.0	1,076.1	1,101.8	1,076.0	4.1	4.1	-108.69	94.0	141.5	66.6	58.4	8.16	8.161		
1,200.0	1,171.0	1,201.0	1,168.6	4.8	4.8	-103.91	112.8	171.8	77.6	68.1	9.51	8.161		
1,300.0	1,265.9	1,300.2	1,261.1	5.4	5.5	-100.34	131.7	202.2	89.1	78.2	10.85	8.205		
1,400.0	1,360.8	1,399.4	1,353.7	6.1	6.2	-97.59	150.5	232.6	100.8	88.6	12.19	8.269		
1,500.0	1,455.7	1,498.6	1,446.2	6.7	6.9	-95.41	169.4	262.9	112.7	99.2	13.51	8.339		
1,600.0	1,550.6	1,597.8	1,538.8	7.3	7.7	-93.65	188.3	293.3	124.7	109.9	14.83	8.410		
1,700.0	1,645.4	1,697.0	1,631.3	8.0	8.4	-92.20	207.1	323.6	136.8	120.7	16.14	8.478		
1,800.0	1,740.3	1,796.2	1,723.8	8.6	9.1	-90.99	226.0	354.0	149.0	131.6	17.45	8.542		
1,900.0	1,835.2	1,895.4	1,816.4	9.3	9.8	-89.96	244.8	384.3	161.3	142.5	18.75	8.602		
2,000.0	1,930.1	1,994.6	1,908.9	9.9	10.5	-89.08	263.7	414.7	173.6	153.5	20.05	8.657		
2,100.0	2,025.0	2,093.9	2,001.5	10.6	11.2	-88.31	282.6	445.0	185.9	164.5	21.35	8.709		
2,200.0	2,119.9	2,193.1	2,094.0	11.2	12.0	-87.64	301.4	475.4	198.3	175.6	22.64	8.756		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 32C-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	-150.24	-6.9	-4.0	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	-150.24	-6.9	-4.0	8.0	7.8	0.18	44.276		
200.0	200.0	200.0	200.0	0.3	0.3	-150.24	-6.9	-4.0	8.0	7.3	0.63	12.650	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	138.69	-6.9	-4.0	9.0	7.9	1.10	8.163		
400.0	399.8	400.3	400.2	0.8	0.8	148.51	-7.0	-1.3	12.6	11.0	1.64	7.680		
500.0	499.1	500.7	500.3	1.0	1.0	150.19	-7.3	6.6	17.2	15.0	2.21	7.760		
600.0	597.6	601.3	600.1	1.4	1.3	148.43	-7.8	19.8	22.5	19.6	2.82	7.964		
700.0	695.1	702.0	699.1	1.8	1.6	145.26	-8.5	38.2	28.6	25.1	3.50	8.164		
800.0	791.4	802.8	797.1	2.3	2.0	141.64	-9.5	61.8	35.6	31.3	4.30	8.284		
900.0	886.4	903.6	893.6	2.9	2.6	137.23	-10.6	90.6	42.9	37.7	5.21	8.238		
1,000.0	981.2	1,003.3	988.6	3.5	3.2	132.36	-11.8	121.0	49.6	43.3	6.26	7.915		
1,100.0	1,076.1	1,103.0	1,083.5	4.1	3.8	128.67	-12.9	151.5	56.5	49.1	7.41	7.628		
1,200.0	1,171.0	1,202.7	1,178.4	4.8	4.4	125.79	-14.1	182.0	63.6	55.0	8.60	7.395		
1,300.0	1,265.9	1,302.4	1,273.3	5.4	5.0	123.50	-15.3	212.5	70.8	61.0	9.83	7.210		
1,400.0	1,360.8	1,402.1	1,368.2	6.1	5.6	121.63	-16.5	243.0	78.2	67.1	11.07	7.063		
1,500.0	1,455.7	1,501.8	1,463.1	6.7	6.2	120.08	-17.7	273.5	85.6	73.3	12.32	6.945		
1,600.0	1,550.6	1,601.5	1,558.1	7.3	6.9	118.78	-18.8	304.0	93.0	79.5	13.58	6.849		
1,700.0	1,645.4	1,701.2	1,653.0	8.0	7.5	117.68	-20.0	334.5	100.5	85.7	14.85	6.770		
1,800.0	1,740.3	1,800.9	1,747.9	8.6	8.1	116.73	-21.2	365.0	108.1	91.9	16.12	6.704		
1,900.0	1,835.2	1,900.6	1,842.8	9.3	8.7	115.90	-22.4	395.5	115.6	98.2	17.39	6.648		
2,000.0	1,930.1	2,000.3	1,937.7	9.9	9.4	115.17	-23.6	425.9	123.2	104.5	18.66	6.601		
2,100.0	2,025.0	2,100.1	2,032.7	10.6	10.0	114.53	-24.7	456.4	130.8	110.8	19.93	6.560		
2,200.0	2,119.9	2,199.8	2,127.6	11.2	10.6	113.96	-25.9	486.9	138.4	117.2	21.21	6.525		
2,300.0	2,214.8	2,299.5	2,222.5	11.9	11.3	113.45	-27.1	517.4	146.0	123.5	22.48	6.494		
2,400.0	2,309.6	2,399.2	2,317.4	12.5	11.9	112.98	-28.3	547.9	153.6	129.9	23.76	6.467		
2,500.0	2,404.5	2,498.9	2,412.3	13.2	12.5	112.57	-29.5	578.4	161.3	136.2	25.03	6.442		
2,600.0	2,499.4	2,598.6	2,507.2	13.8	13.2	112.19	-30.7	608.9	168.9	142.6	26.31	6.421		
2,700.0	2,594.3	2,698.3	2,602.2	14.5	13.8	111.84	-31.8	639.4	176.6	149.0	27.58	6.401		
2,800.0	2,689.2	2,798.0	2,697.1	15.1	14.4	111.52	-33.0	669.9	184.2	155.4	28.85	6.384		
2,900.0	2,784.1	2,897.7	2,792.0	15.8	15.1	111.23	-34.2	700.4	191.9	161.7	30.13	6.368		
3,000.0	2,879.0	2,997.4	2,886.9	16.4	15.7	110.96	-35.4	730.9	199.5	168.1	31.40	6.354	SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 33A-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	-150.69	-21.1	-11.9	24.2					
100.0	100.0	100.0	100.0	0.1	0.1	-150.69	-21.1	-11.9	24.2	24.0	0.18	134.678		
200.0	200.0	200.0	200.0	0.3	0.3	-150.69	-21.1	-11.9	24.2	23.6	0.63	38.480 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	133.74	-21.1	-11.9	25.2	24.1	1.10	22.941		
400.0	399.8	400.2	400.1	0.8	0.8	140.06	-21.6	-10.5	29.6	28.0	1.62	18.217		
500.0	499.1	500.5	500.3	1.0	1.0	142.10	-23.7	-4.2	36.5	34.3	2.18	16.698		
600.0	597.6	600.9	599.9	1.4	1.2	141.23	-27.6	7.0	45.6	42.8	2.80	16.273		
700.0	695.1	701.1	698.7	1.8	1.6	138.92	-33.1	23.1	56.9	53.4	3.51	16.244		
800.0	791.4	801.1	796.2	2.3	2.0	136.07	-40.2	44.0	70.6	66.3	4.34	16.287		
900.0	886.4	900.9	892.2	2.9	2.5	132.88	-49.0	69.7	86.1	80.8	5.28	16.302		
1,000.0	981.2	1,000.2	986.3	3.5	3.1	128.08	-59.3	99.8	101.1	94.7	6.38	15.832		
1,100.0	1,076.1	1,098.7	1,079.0	4.1	3.7	123.74	-70.0	131.2	116.5	108.9	7.60	15.316		
1,200.0	1,171.0	1,197.2	1,171.7	4.8	4.4	120.43	-80.7	162.5	132.3	123.5	8.87	14.926		
1,300.0	1,265.9	1,295.6	1,264.5	5.4	5.0	117.83	-91.5	193.9	148.6	138.4	10.15	14.636		
1,400.0	1,360.8	1,394.1	1,357.2	6.1	5.7	115.74	-102.2	225.3	165.0	153.6	11.44	14.420		
1,500.0	1,455.7	1,492.6	1,449.9	6.7	6.4	114.04	-112.9	256.6	181.6	168.9	12.74	14.255		
1,600.0	1,550.6	1,591.1	1,542.6	7.3	7.1	112.62	-123.6	288.0	198.4	184.4	14.04	14.127 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 33C-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							
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	-150.00	-34.2	-19.8	39.5					
100.0	100.0	100.0	100.0	0.1	0.1	-150.00	-34.2	-19.8	39.5	39.3	0.18	219.799		
200.0	200.0	200.0	200.0	0.3	0.3	-150.00	-34.2	-19.8	39.5	38.9	0.63	62.800 CC, ES		
300.0	300.0	299.9	299.9	0.5	0.5	132.54	-34.6	-19.2	40.5	39.5	1.09	37.261		
400.0	399.8	399.7	399.6	0.8	0.7	131.93	-37.4	-14.9	45.2	43.6	1.59	28.480		
500.0	499.1	499.2	498.5	1.0	1.0	129.97	-43.1	-6.2	53.7	51.5	2.16	24.857		
600.0	597.6	598.0	596.1	1.4	1.3	127.48	-51.6	6.7	66.0	63.2	2.82	23.380		
700.0	695.1	696.1	692.1	1.8	1.7	125.02	-62.7	23.6	82.2	78.6	3.61	22.781		
800.0	791.4	793.2	786.0	2.3	2.2	122.79	-76.3	44.4	102.3	97.7	4.54	22.522		
900.0	886.4	889.3	877.4	2.9	2.7	120.85	-92.4	68.9	125.6	120.0	5.60	22.441		
1,000.0	981.2	984.3	966.3	3.5	3.4	117.99	-110.7	96.8	150.3	143.6	6.75	22.275		
1,100.0	1,076.1	1,080.3	1,055.2	4.1	4.1	115.01	-130.7	127.3	176.2	168.3	7.99	22.071 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 34A-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				Total		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	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-150.27	-41.5	-23.7	47.8					
100.0	100.0	100.0	100.0	0.1	0.1	-150.27	-41.5	-23.7	47.8	47.6	0.18	265.898		
200.0	200.0	200.0	200.0	0.3	0.3	-150.27	-41.5	-23.7	47.8	47.2	0.63	75.971	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	132.94	-41.5	-23.7	48.8	47.7	1.10	44.436		
400.0	399.8	399.8	399.8	0.8	0.8	137.98	-41.5	-23.7	53.5	51.8	1.63	32.771		
500.0	499.1	499.0	498.9	1.0	1.0	142.65	-43.3	-21.8	62.8	60.6	2.20	28.491		
600.0	597.6	597.9	597.5	1.4	1.2	144.31	-48.5	-16.3	76.6	73.8	2.81	27.314		
700.0	695.1	696.2	695.0	1.8	1.4	144.00	-57.2	-7.0	94.7	91.3	3.47	27.290	SF	
800.0	791.4	793.6	790.8	2.3	1.7	142.63	-69.2	5.7	117.1	112.8	4.23	27.668		
900.0	886.4	889.9	884.6	2.9	2.1	140.84	-84.4	21.8	142.8	137.8	5.04	28.357		
1,000.0	981.2	985.5	976.4	3.5	2.6	138.14	-102.6	41.1	169.4	163.4	5.94	28.510		
1,100.0	1,076.1	1,079.9	1,065.7	4.1	3.2	134.78	-123.6	63.5	196.8	189.8	6.99	28.177		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT SWD E1-797 - VH - 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	-150.61	-62.6	-35.3	71.9					
100.0	100.0	100.0	100.0	0.1	0.1	-150.61	-62.6	-35.3	71.9	71.7	0.18	399.824		
200.0	200.0	200.0	200.0	0.3	0.3	-150.61	-62.6	-35.3	71.9	71.3	0.63	114.235 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	132.18	-62.6	-35.3	72.9	71.8	1.10	66.395		
400.0	399.8	399.8	399.8	0.8	0.8	135.67	-62.6	-35.3	77.4	75.8	1.62	47.649		
500.0	499.1	499.1	499.1	1.0	1.0	140.95	-62.6	-35.3	86.2	84.0	2.21	38.960		
600.0	597.6	597.6	597.6	1.4	1.2	146.82	-62.6	-35.3	100.0	97.2	2.85	35.082		
700.0	695.1	695.1	695.1	1.8	1.4	152.33	-62.6	-35.3	119.2	115.7	3.51	33.926 SF		
800.0	791.4	791.4	791.4	2.3	1.6	157.03	-62.6	-35.3	143.9	139.7	4.18	34.423		
900.0	886.4	886.4	886.4	2.9	1.9	160.93	-62.6	-35.3	173.2	168.5	4.73	36.583		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 32A-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 32A-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=20' @ 8349.0usft (Patterson #303)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 32A-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

