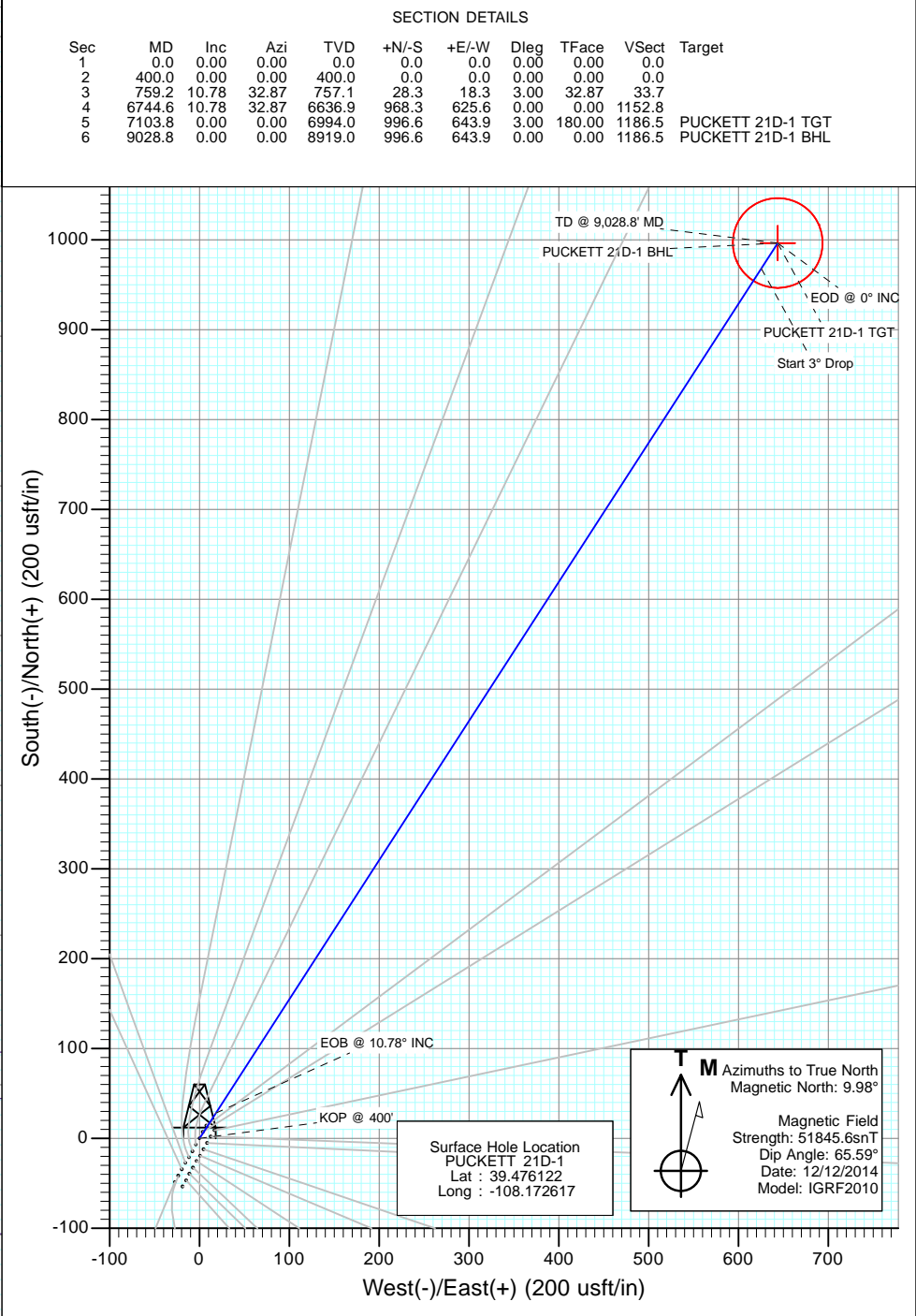
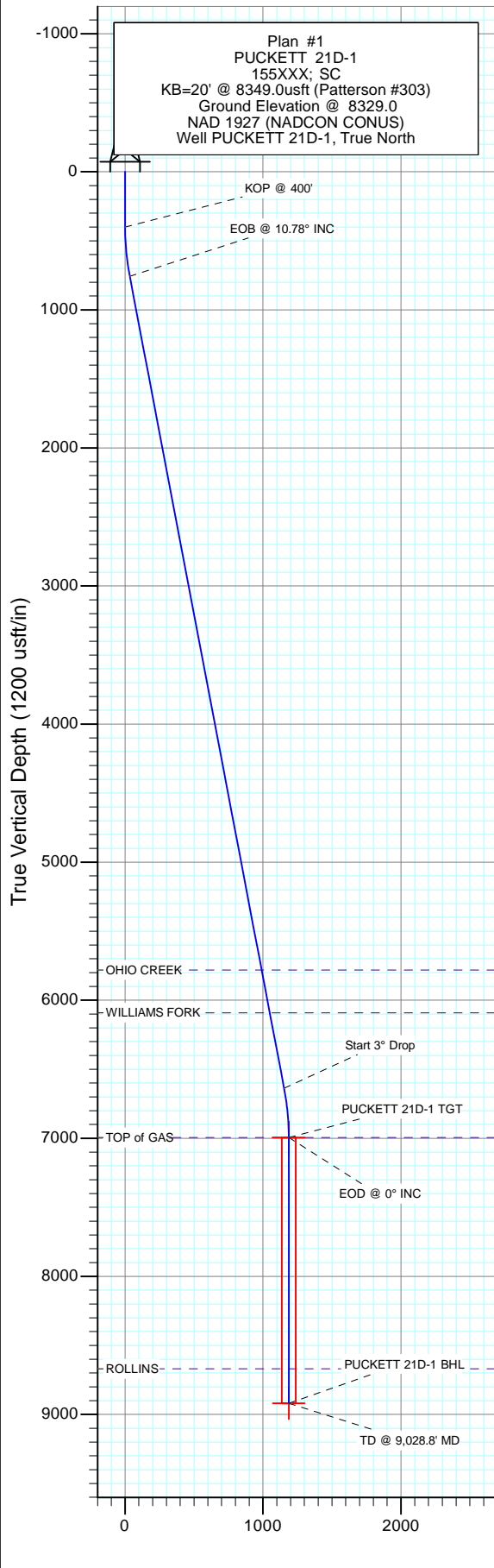
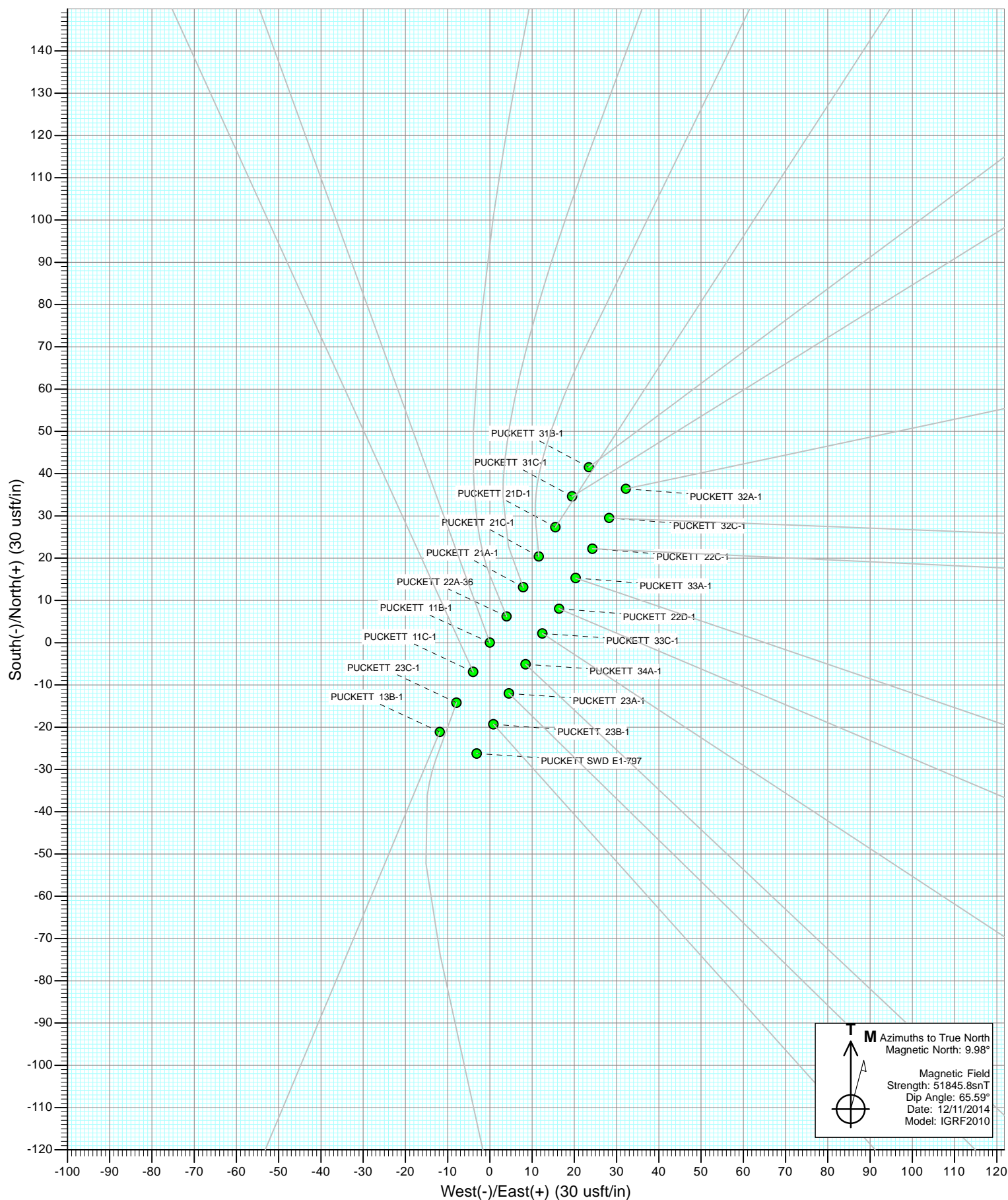


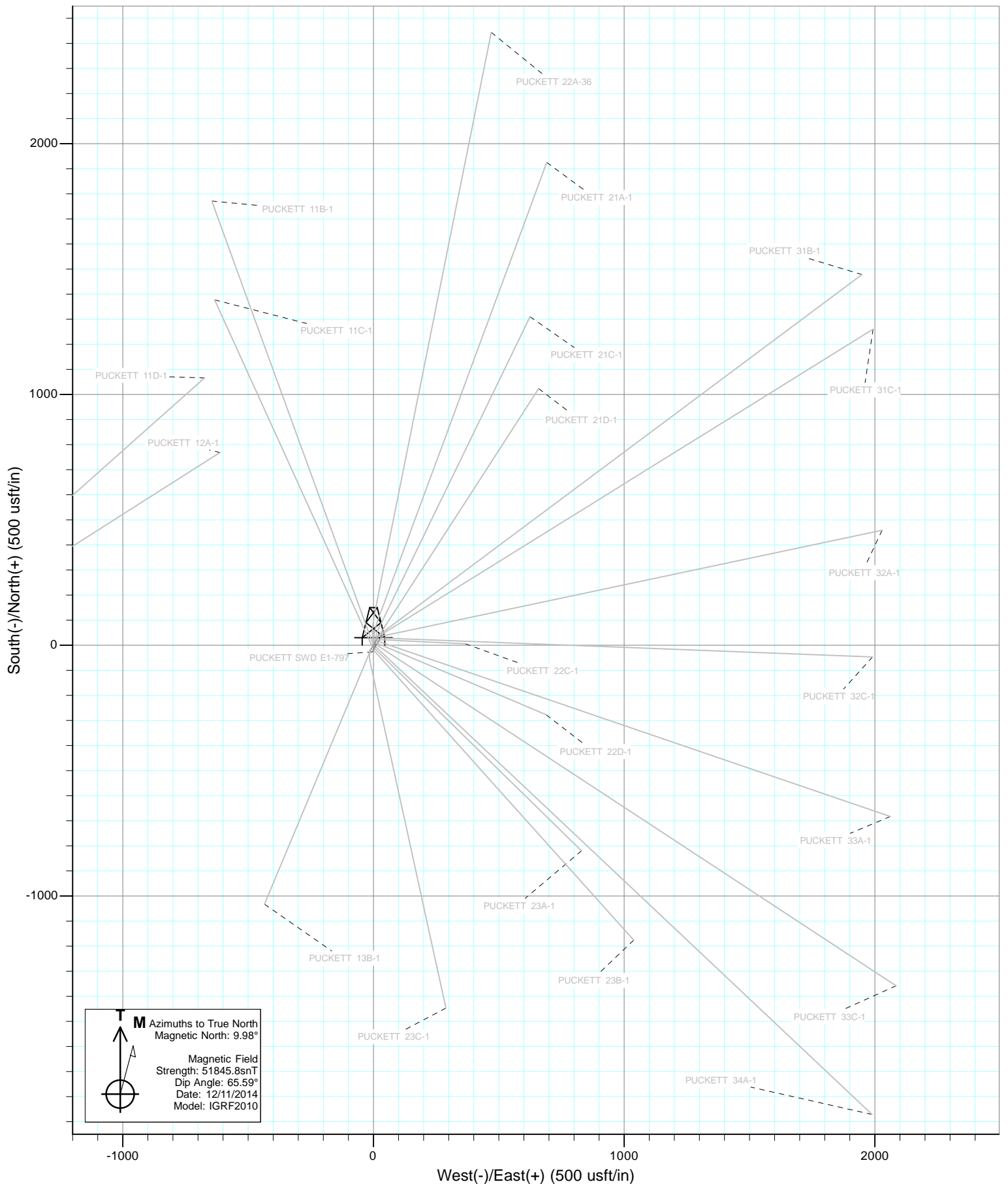


Project: Garfield County, CO
 Site: S1-T7S-R97W (Mesa E1 797)
 Well: PUCKETT 21D-1
 Wellbore: DD
 Design: Plan #1



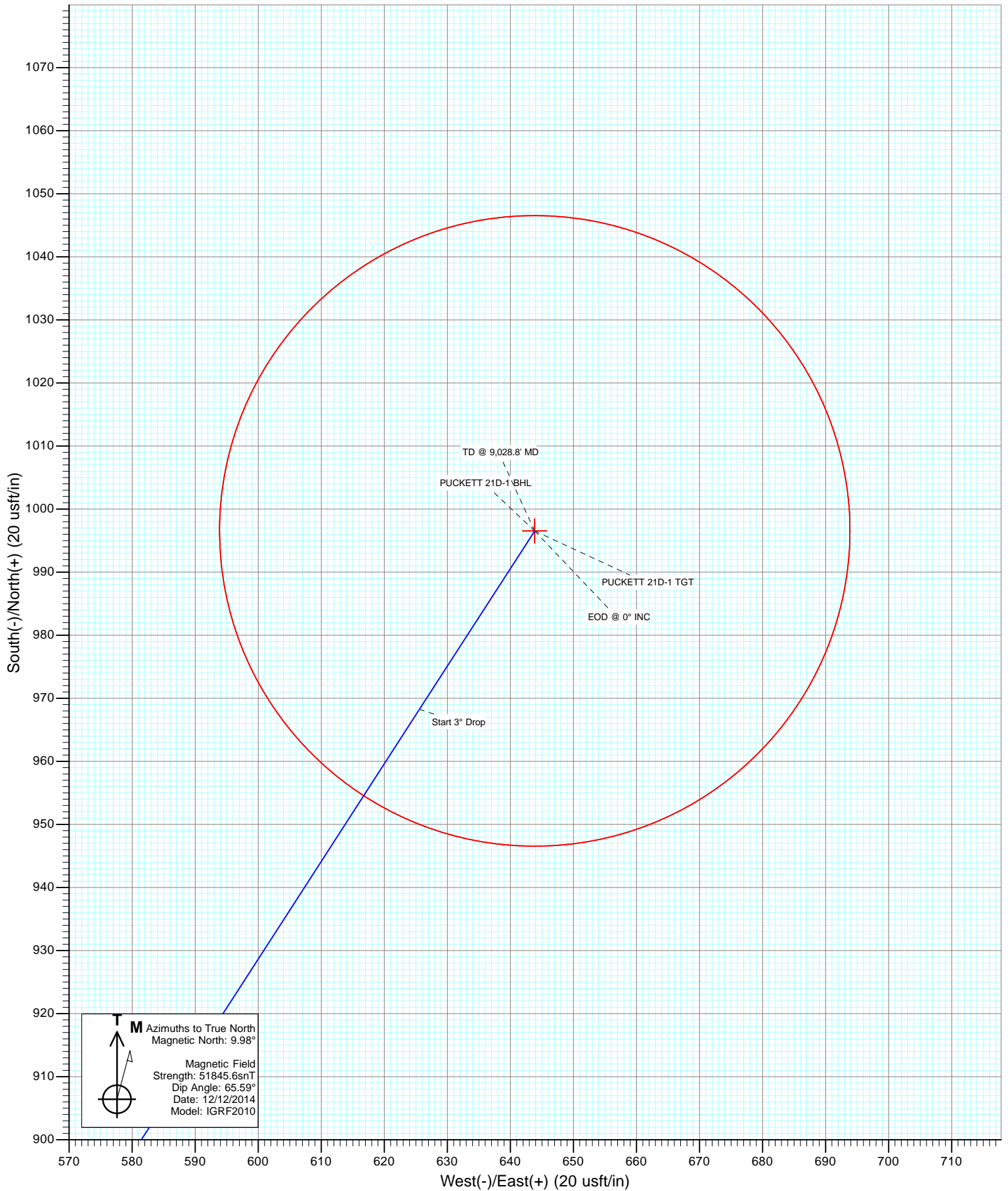
DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 21D-1 TGT	996.6	643.9	610368.29	1246335.38	39.478858	-108.170336
PUCKETT 21D-1 BHL	996.6	643.9	610368.29	1246335.38	39.478858	-108.170336







Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 21D-1
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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 21D-1					
Well Position	+N/-S	0.0 usft	Northing:	609,391.11 usft	Latitude:	39.476122
	+E/-W	0.0 usft	Easting:	1,245,662.47 usft	Longitude:	-108.172617
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	32.87	

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
759.2	10.78	32.87	757.1	28.3	18.3	3.00	3.00	0.00	32.87	
6,744.6	10.78	32.87	6,636.9	968.3	625.6	0.00	0.00	0.00	0.00	
7,103.8	0.00	0.00	6,994.0	996.6	643.9	3.00	-3.00	0.00	180.00	PUCKETT 21D-1 TG1
9,028.8	0.00	0.00	8,919.0	996.6	643.9	0.00	0.00	0.00	0.00	PUCKETT 21D-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	KOP @ 400'
500.0	3.00	32.87	500.0	2.2	1.4	2.6	3.00	3.00	
600.0	6.00	32.87	599.6	8.8	5.7	10.5	3.00	3.00	
700.0	9.00	32.87	698.8	19.7	12.8	23.5	3.00	3.00	
759.2	10.78	32.87	757.1	28.3	18.3	33.7	3.00	3.00	EOB @ 10.78° INC
800.0	10.78	32.87	797.2	34.7	22.4	41.3	0.00	0.00	
900.0	10.78	32.87	895.4	50.4	32.6	60.0	0.00	0.00	
1,000.0	10.78	32.87	993.6	66.1	42.7	78.7	0.00	0.00	
1,100.0	10.78	32.87	1,091.9	81.8	52.9	97.4	0.00	0.00	
1,200.0	10.78	32.87	1,190.1	97.5	63.0	116.1	0.00	0.00	
1,300.0	10.78	32.87	1,288.3	113.2	73.2	134.8	0.00	0.00	
1,400.0	10.78	32.87	1,386.6	128.9	83.3	153.5	0.00	0.00	
1,500.0	10.78	32.87	1,484.8	144.6	93.4	172.2	0.00	0.00	
1,600.0	10.78	32.87	1,583.1	160.3	103.6	190.9	0.00	0.00	
1,700.0	10.78	32.87	1,681.3	176.0	113.7	209.6	0.00	0.00	
1,800.0	10.78	32.87	1,779.5	191.7	123.9	228.3	0.00	0.00	
1,900.0	10.78	32.87	1,877.8	207.4	134.0	247.0	0.00	0.00	
2,000.0	10.78	32.87	1,976.0	223.2	144.2	265.7	0.00	0.00	
2,100.0	10.78	32.87	2,074.2	238.9	154.3	284.4	0.00	0.00	
2,200.0	10.78	32.87	2,172.5	254.6	164.5	303.1	0.00	0.00	
2,300.0	10.78	32.87	2,270.7	270.3	174.6	321.8	0.00	0.00	
2,400.0	10.78	32.87	2,369.0	286.0	184.8	340.5	0.00	0.00	
2,500.0	10.78	32.87	2,467.2	301.7	194.9	359.2	0.00	0.00	
2,600.0	10.78	32.87	2,565.4	317.4	205.1	377.9	0.00	0.00	
2,700.0	10.78	32.87	2,663.7	333.1	215.2	396.6	0.00	0.00	
2,800.0	10.78	32.87	2,761.9	348.8	225.4	415.3	0.00	0.00	
2,900.0	10.78	32.87	2,860.1	364.5	235.5	434.0	0.00	0.00	
3,000.0	10.78	32.87	2,958.4	380.2	245.6	452.6	0.00	0.00	
3,100.0	10.78	32.87	3,056.6	395.9	255.8	471.3	0.00	0.00	
3,200.0	10.78	32.87	3,154.8	411.6	265.9	490.0	0.00	0.00	
3,300.0	10.78	32.87	3,253.1	427.3	276.1	508.7	0.00	0.00	
3,400.0	10.78	32.87	3,351.3	443.0	286.2	527.4	0.00	0.00	
3,500.0	10.78	32.87	3,449.6	458.7	296.4	546.1	0.00	0.00	
3,600.0	10.78	32.87	3,547.8	474.4	306.5	564.8	0.00	0.00	
3,700.0	10.78	32.87	3,646.0	490.1	316.7	583.5	0.00	0.00	
3,800.0	10.78	32.87	3,744.3	505.8	326.8	602.2	0.00	0.00	
3,900.0	10.78	32.87	3,842.5	521.5	337.0	620.9	0.00	0.00	
4,000.0	10.78	32.87	3,940.7	537.2	347.1	639.6	0.00	0.00	
4,100.0	10.78	32.87	4,039.0	552.9	357.3	658.3	0.00	0.00	
4,200.0	10.78	32.87	4,137.2	568.7	367.4	677.0	0.00	0.00	
4,300.0	10.78	32.87	4,235.4	584.4	377.6	695.7	0.00	0.00	
4,400.0	10.78	32.87	4,333.7	600.1	387.7	714.4	0.00	0.00	
4,500.0	10.78	32.87	4,431.9	615.8	397.8	733.1	0.00	0.00	
4,600.0	10.78	32.87	4,530.2	631.5	408.0	751.8	0.00	0.00	
4,700.0	10.78	32.87	4,628.4	647.2	418.1	770.5	0.00	0.00	
4,800.0	10.78	32.87	4,726.6	662.9	428.3	789.2	0.00	0.00	
4,900.0	10.78	32.87	4,824.9	678.6	438.4	807.9	0.00	0.00	
5,000.0	10.78	32.87	4,923.1	694.3	448.6	826.6	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,100.0	10.78	32.87	5,021.3	710.0	458.7	845.3	0.00	0.00	
5,200.0	10.78	32.87	5,119.6	725.7	468.9	864.0	0.00	0.00	
5,300.0	10.78	32.87	5,217.8	741.4	479.0	882.7	0.00	0.00	
5,400.0	10.78	32.87	5,316.0	757.1	489.2	901.4	0.00	0.00	
5,500.0	10.78	32.87	5,414.3	772.8	499.3	920.1	0.00	0.00	
5,600.0	10.78	32.87	5,512.5	788.5	509.5	938.8	0.00	0.00	
5,700.0	10.78	32.87	5,610.8	804.2	519.6	957.5	0.00	0.00	
5,800.0	10.78	32.87	5,709.0	819.9	529.8	976.2	0.00	0.00	
5,873.3	10.78	32.87	5,781.0	831.4	537.2	989.9	0.00	0.00	OHIO CREEK
5,900.0	10.78	32.87	5,807.2	835.6	539.9	994.9	0.00	0.00	
6,000.0	10.78	32.87	5,905.5	851.3	550.0	1,013.6	0.00	0.00	
6,100.0	10.78	32.87	6,003.7	867.0	560.2	1,032.3	0.00	0.00	
6,188.9	10.78	32.87	6,091.0	881.0	569.2	1,048.9	0.00	0.00	WILLIAMS FORK
6,200.0	10.78	32.87	6,101.9	882.7	570.3	1,051.0	0.00	0.00	
6,300.0	10.78	32.87	6,200.2	898.4	580.5	1,069.7	0.00	0.00	
6,400.0	10.78	32.87	6,298.4	914.2	590.6	1,088.4	0.00	0.00	
6,500.0	10.78	32.87	6,396.6	929.9	600.8	1,107.1	0.00	0.00	
6,600.0	10.78	32.87	6,494.9	945.6	610.9	1,125.8	0.00	0.00	
6,700.0	10.78	32.87	6,593.1	961.3	621.1	1,144.5	0.00	0.00	
6,744.6	10.78	32.87	6,636.9	968.3	625.6	1,152.8	0.00	0.00	Start 3° Drop
6,800.0	9.11	32.87	6,691.5	976.3	630.8	1,162.4	3.00	-3.00	
6,900.0	6.11	32.87	6,790.6	987.4	638.0	1,175.6	3.00	-3.00	
7,000.0	3.11	32.87	6,890.3	994.2	642.3	1,183.6	3.00	-3.00	
7,103.8	0.00	0.00	6,994.0	996.6	643.9	1,186.5	3.00	-3.00	EOD @ 0° INC - TOP of GAS
7,200.0	0.00	0.00	7,090.2	996.6	643.9	1,186.5	0.00	0.00	
7,300.0	0.00	0.00	7,190.2	996.6	643.9	1,186.5	0.00	0.00	
7,400.0	0.00	0.00	7,290.2	996.6	643.9	1,186.5	0.00	0.00	
7,500.0	0.00	0.00	7,390.2	996.6	643.9	1,186.5	0.00	0.00	
7,600.0	0.00	0.00	7,490.2	996.6	643.9	1,186.5	0.00	0.00	
7,700.0	0.00	0.00	7,590.2	996.6	643.9	1,186.5	0.00	0.00	
7,800.0	0.00	0.00	7,690.2	996.6	643.9	1,186.5	0.00	0.00	
7,900.0	0.00	0.00	7,790.2	996.6	643.9	1,186.5	0.00	0.00	
8,000.0	0.00	0.00	7,890.2	996.6	643.9	1,186.5	0.00	0.00	
8,100.0	0.00	0.00	7,990.2	996.6	643.9	1,186.5	0.00	0.00	
8,200.0	0.00	0.00	8,090.2	996.6	643.9	1,186.5	0.00	0.00	
8,300.0	0.00	0.00	8,190.2	996.6	643.9	1,186.5	0.00	0.00	
8,400.0	0.00	0.00	8,290.2	996.6	643.9	1,186.5	0.00	0.00	
8,500.0	0.00	0.00	8,390.2	996.6	643.9	1,186.5	0.00	0.00	
8,600.0	0.00	0.00	8,490.2	996.6	643.9	1,186.5	0.00	0.00	
8,700.0	0.00	0.00	8,590.2	996.6	643.9	1,186.5	0.00	0.00	
8,778.8	0.00	0.00	8,669.0	996.6	643.9	1,186.5	0.00	0.00	ROLLINS
8,800.0	0.00	0.00	8,690.2	996.6	643.9	1,186.5	0.00	0.00	
8,900.0	0.00	0.00	8,790.2	996.6	643.9	1,186.5	0.00	0.00	
9,000.0	0.00	0.00	8,890.2	996.6	643.9	1,186.5	0.00	0.00	
9,028.8	0.00	0.00	8,919.0	996.6	643.9	1,186.5	0.00	0.00	TD @ 9,028.8' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 21D-1 TGT	0.00	0.00	6,994.0	996.6	643.9	610,368.29	1,246,335.38	39.478858	-108.170336
- plan hits target center									
- Point									
PUCKETT 21D-1 BHL	0.00	0.00	8,919.0	996.6	643.9	610,368.29	1,246,335.38	39.478858	-108.170336
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,873.3	5,781.0	OHIO CREEK				
6,188.9	6,091.0	WILLIAMS FORK				
7,103.8	6,994.0	TOP of GAS				
8,778.8	8,669.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)		
400.0	400.0	0.0	0.0	KOP @ 400'	
759.2	757.1	28.3	18.3	EOB @ 10.78° INC	
6,744.6	6,636.9	968.3	625.6	Start 3° Drop	
7,103.8	6,994.0	996.6	643.9	EOD @ 0° INC	
9,028.8	8,919.0	996.6	643.9	TD @ 9,028.8' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 21D-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 21D-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 21D-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	9,028.8	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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)		
Puckett 241-1						
Puckett 241-1 - STK - Plan #1						Out of range
S1-T7S-R97W (Mesa E1 797)						
PUCKETT 11B-1 - DD - Plan #1	449.3	450.6	24.8	23.0	13.717	CC, ES
PUCKETT 11B-1 - DD - Plan #1	500.0	500.9	26.1	24.0	12.509	SF
PUCKETT 11C-1 - DD - Plan #1	471.4	473.0	37.7	35.8	20.033	CC, ES
PUCKETT 11C-1 - DD - Plan #1	600.0	601.9	41.6	39.1	16.093	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	55.6	55.0	88.419	CC, ES
PUCKETT 13B-1 - DD - Plan #1	500.0	488.9	80.9	78.8	39.242	SF
PUCKETT 21A-1 - HZ - Plan #1	457.6	458.1	13.6	11.8	7.497	CC, ES
PUCKETT 21A-1 - HZ - Plan #1	500.0	500.6	14.2	12.1	7.008	SF
PUCKETT 21C-1 - DD - Plan #1	473.0	473.3	6.5	4.7	3.472	CC, ES
PUCKETT 21C-1 - DD - Plan #1	500.0	500.3	6.7	4.7	3.339	SF
PUCKETT 22A-36 - DD - Plan #1	462.7	463.7	20.6	18.7	11.168	CC, ES
PUCKETT 22A-36 - DD - Plan #1	600.0	601.4	24.9	22.4	9.700	SF
PUCKETT 22C-1 - DD - Plan #1	442.2	442.2	10.1	8.4	5.890	CC
PUCKETT 22C-1 - DD - Plan #1	500.0	500.0	10.3	8.4	5.227	ES, SF
PUCKETT 22D-1 - DD - Plan #1	400.0	400.0	19.3	17.8	12.642	CC, ES
PUCKETT 22D-1 - DD - Plan #1	500.0	500.0	21.5	19.5	10.683	SF
PUCKETT 23A-1 - DD - Plan #1	400.0	400.0	40.8	39.3	26.726	CC, ES
PUCKETT 23A-1 - DD - Plan #1	600.0	598.4	52.1	49.5	20.418	SF
PUCKETT 23B-1 - DD - Plan #1	400.0	400.0	48.9	47.4	31.982	CC, ES
PUCKETT 23B-1 - DD - Plan #1	600.0	596.1	64.5	61.9	25.390	SF
PUCKETT 23C-1 - DD - Plan #1	300.0	300.0	47.7	46.6	44.195	CC, ES
PUCKETT 23C-1 - DD - Plan #1	500.0	494.2	60.4	58.3	29.991	SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	16.3	15.6	25.824	CC, ES
PUCKETT 31B-1 - DD - Plan #1	400.0	397.7	26.1	24.5	16.772	SF
PUCKETT 31C-1 - DD - Plan #1	234.0	234.0	8.3	7.5	10.593	CC, ES
PUCKETT 31C-1 - DD - Plan #1	300.0	299.8	8.9	7.8	8.227	SF
PUCKETT 32A-1 - DD - Plan #1	200.0	200.0	19.0	18.3	30.150	CC, ES
PUCKETT 32A-1 - DD - Plan #1	400.0	397.9	26.7	25.1	17.380	SF
PUCKETT 32C-1 - DD - Plan #1	300.0	300.0	12.9	11.8	11.946	CC, ES
PUCKETT 32C-1 - DD - Plan #1	400.0	399.3	15.4	13.9	10.157	SF
PUCKETT 33A-1 - DD - Plan #1	300.0	300.0	12.9	11.9	12.000	CC, ES
PUCKETT 33A-1 - DD - Plan #1	400.0	399.6	13.9	12.4	9.184	SF
PUCKETT 33C-1 - DD - Plan #1	234.7	234.7	25.3	24.5	32.242	CC, ES
PUCKETT 33C-1 - DD - Plan #1	500.0	497.1	37.3	35.3	18.564	SF
PUCKETT 34A-1 - DD - Plan #1	400.0	400.0	33.2	31.7	21.712	CC, ES
PUCKETT 34A-1 - DD - Plan #1	500.0	499.0	37.0	35.0	18.474	SF
PUCKETT SWD E1-797 - VH - Plan #1	400.0	400.0	56.7	55.2	37.094	CC, ES
PUCKETT SWD E1-797 - VH - Plan #1	700.0	698.8	79.7	76.6	25.357	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-150.39	-27.3	-15.5	31.4				
100.0	100.0	100.0	100.0	0.1	0.1	-150.39	-27.3	-15.5	31.4	31.2	0.18	174.743	
200.0	200.0	200.0	200.0	0.3	0.3	-150.39	-27.3	-15.5	31.4	30.8	0.63	49.927	
300.0	300.0	301.0	300.9	0.5	0.5	-146.47	-24.8	-16.4	29.8	28.7	1.09	27.392	
400.0	400.0	401.4	401.0	0.8	0.8	-132.17	-17.3	-19.2	25.9	24.3	1.56	16.555	
449.3	449.3	450.6	449.9	0.9	0.9	-152.91	-11.9	-21.1	24.8	23.0	1.81	13.717 CC, ES	
500.0	500.0	500.9	499.7	1.0	1.1	-139.03	-5.1	-23.6	26.1	24.0	2.08	12.509 SF	
600.0	599.6	599.4	596.5	1.2	1.4	-117.44	11.8	-29.8	35.7	33.0	2.66	13.445	
700.0	698.8	696.5	690.9	1.5	1.8	-106.60	33.0	-37.5	52.5	49.3	3.27	16.087	
800.0	797.2	792.6	783.1	1.8	2.3	-101.79	58.2	-46.7	74.3	70.4	3.96	18.775	
900.0	895.4	889.8	876.1	2.2	2.9	-99.26	85.0	-56.4	97.4	92.7	4.69	20.770	
1,000.0	993.6	987.0	969.0	2.5	3.4	-97.70	111.8	-66.2	120.6	115.2	5.45	22.143	
1,100.0	1,091.9	1,084.2	1,062.0	2.9	4.0	-96.64	138.6	-75.9	143.9	137.7	6.22	23.122	
1,200.0	1,190.1	1,181.5	1,154.9	3.3	4.5	-95.88	165.4	-85.7	167.2	160.2	7.01	23.840	
1,300.0	1,288.3	1,278.7	1,247.9	3.7	5.1	-95.31	192.2	-95.4	190.5	182.7	7.81	24.390	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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			
0.0	0.0	0.0	0.0	0.0	0.0	-150.36	-34.2	-19.5	39.4					
100.0	100.0	100.0	100.0	0.1	0.1	-150.36	-34.2	-19.5	39.4	39.2	0.18	219.063		
200.0	200.0	200.0	200.0	0.3	0.3	-150.36	-34.2	-19.5	39.4	38.8	0.63	62.590		
300.0	300.0	300.0	300.0	0.5	0.5	-150.36	-34.2	-19.5	39.4	38.3	1.08	36.511		
400.0	400.0	400.9	400.9	0.8	0.8	-148.55	-32.9	-20.1	38.5	37.0	1.53	25.152		
471.4	471.4	473.0	472.8	0.9	0.9	-176.04	-29.0	-21.8	37.7	35.8	1.88	20.033 CC, ES		
500.0	500.0	501.7	501.5	1.0	1.0	-172.93	-26.8	-22.9	37.8	35.8	2.03	18.658		
600.0	599.6	601.9	600.9	1.2	1.3	-159.37	-16.0	-27.8	41.6	39.1	2.59	16.093 SF		
700.0	698.8	701.0	698.6	1.5	1.6	-145.76	-0.7	-34.7	51.7	48.5	3.19	16.209		
800.0	797.2	798.8	793.9	1.8	2.0	-135.39	19.0	-43.7	68.0	64.2	3.82	17.786		
900.0	895.4	896.6	888.9	2.2	2.4	-128.38	40.4	-53.4	86.8	82.3	4.49	19.321		
1,000.0	993.6	994.3	983.8	2.5	2.8	-123.90	61.8	-63.1	106.4	101.2	5.21	20.430		
1,100.0	1,091.9	1,092.1	1,078.7	2.9	3.3	-120.82	83.2	-72.8	126.4	120.4	5.95	21.249		
1,200.0	1,190.1	1,189.9	1,173.6	3.3	3.8	-118.58	104.6	-82.6	146.7	140.0	6.71	21.872		
1,300.0	1,288.3	1,287.7	1,268.5	3.7	4.2	-116.88	126.0	-92.3	167.1	159.6	7.47	22.361		
1,400.0	1,386.6	1,385.5	1,363.4	4.1	4.7	-115.56	147.4	-102.0	187.7	179.4	8.25	22.753		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-150.52	-48.4	-27.4	55.6					
100.0	100.0	100.0	100.0	0.1	0.1	-150.52	-48.4	-27.4	55.6	55.5	0.18	309.465		
200.0	200.0	200.0	200.0	0.3	0.3	-150.52	-48.4	-27.4	55.6	55.0	0.63	88.419 CC, ES		
300.0	300.0	297.1	297.1	0.5	0.5	-150.81	-50.7	-28.3	58.2	57.1	1.06	54.962		
400.0	400.0	393.7	393.4	0.8	0.7	-151.54	-57.5	-31.2	65.7	64.2	1.51	43.572		
500.0	500.0	488.9	487.8	1.0	1.0	174.82	-68.6	-35.8	80.9	78.8	2.06	39.242 SF		
600.0	599.6	581.2	578.7	1.2	1.3	174.32	-83.4	-42.0	105.9	103.2	2.67	39.696		
700.0	698.8	669.9	665.2	1.5	1.7	174.03	-101.5	-49.5	140.4	137.1	3.30	42.546		
800.0	797.2	761.2	753.8	1.8	2.1	173.95	-121.7	-58.0	181.1	177.3	3.83	47.252		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-151.78	-14.2	-7.6	16.1					
100.0	100.0	100.0	100.0	0.1	0.1	-151.78	-14.2	-7.6	16.1	15.9	0.18	89.652		
200.0	200.0	200.0	200.0	0.3	0.3	-151.78	-14.2	-7.6	16.1	15.5	0.63	25.615		
300.0	300.0	300.0	300.0	0.5	0.5	-151.78	-14.2	-7.6	16.1	15.0	1.08	14.942		
400.0	400.0	400.5	400.4	0.8	0.8	-143.97	-11.7	-8.5	14.5	13.0	1.53	9.458		
457.6	457.6	458.1	458.0	0.9	0.9	-163.25	-8.1	-9.9	13.6	11.8	1.81	7.497 CC, ES		
500.0	500.0	500.6	500.2	1.0	1.0	-150.28	-4.3	-11.2	14.2	12.1	2.02	7.008 SF		
600.0	599.6	600.9	599.8	1.2	1.3	-126.38	7.6	-12.5	18.2	15.7	2.53	7.185		
700.0	698.8	701.2	698.7	1.5	1.6	-112.57	23.9	-10.8	24.0	20.9	3.09	7.771		
800.0	797.2	801.4	796.7	1.8	1.9	-103.66	44.5	-6.3	30.3	26.6	3.74	8.104		
900.0	895.4	901.2	893.1	2.2	2.4	-91.37	69.1	1.1	36.7	32.2	4.50	8.157		
1,000.0	993.6	1,000.2	987.4	2.5	2.9	-76.64	97.5	11.2	44.9	39.7	5.26	8.539		
1,100.0	1,091.9	1,099.1	1,081.2	2.9	3.5	-65.49	127.1	22.1	55.7	49.8	5.96	9.349		
1,200.0	1,190.1	1,198.1	1,175.0	3.3	4.1	-58.12	156.6	33.0	68.0	61.3	6.62	10.262		
1,300.0	1,288.3	1,297.0	1,268.8	3.7	4.6	-53.04	186.1	43.9	80.9	73.7	7.26	11.142		
1,400.0	1,386.6	1,396.0	1,362.6	4.1	5.2	-49.38	215.7	54.8	94.4	86.5	7.90	11.945		
1,500.0	1,484.8	1,494.9	1,456.4	4.5	5.8	-46.63	245.2	65.7	108.1	99.6	8.54	12.663		
1,600.0	1,583.1	1,593.8	1,550.2	4.9	6.5	-44.51	274.7	76.6	122.0	112.8	9.17	13.302		
1,700.0	1,681.3	1,692.8	1,644.0	5.3	7.1	-42.83	304.2	87.5	136.1	126.2	9.81	13.869		
1,800.0	1,779.5	1,791.7	1,737.8	5.7	7.7	-41.46	333.8	98.4	150.2	139.7	10.45	14.374		
1,900.0	1,877.8	1,890.7	1,831.6	6.1	8.3	-40.32	363.3	109.4	164.4	153.3	11.09	14.826		
2,000.0	1,976.0	1,989.6	1,925.4	6.5	8.9	-39.37	392.8	120.3	178.7	166.9	11.73	15.231		
2,100.0	2,074.2	2,088.5	2,019.2	6.9	9.5	-38.56	422.3	131.2	193.0	180.6	12.37	15.596		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-150.27	-6.9	-4.0	8.0	7.8	0.18	44.320		
100.0	100.0	100.0	100.0	0.1	0.1	-150.27	-6.9	-4.0	8.0	7.3	0.63	12.663		
200.0	200.0	200.0	200.0	0.3	0.3	-150.27	-6.9	-4.0	8.0	6.9	1.08	7.387		
300.0	300.0	300.0	300.0	0.5	0.5	-150.27	-6.9	-4.0	8.0	6.9	1.08	7.387		
400.0	400.0	400.2	400.2	0.8	0.8	-147.38	-6.3	-4.0	7.4	5.9	1.53	4.862		
473.0	472.9	473.3	473.2	0.9	0.9	-162.13	-3.0	-4.3	6.5	4.7	1.88	3.472 CC, ES		
500.0	500.0	500.3	500.2	1.0	1.0	-151.62	-1.0	-4.5	6.7	4.7	2.01	3.339 SF		
600.0	599.6	600.4	599.8	1.2	1.2	-121.13	9.1	-4.5	10.1	7.6	2.49	4.065		
700.0	698.8	700.7	699.0	1.5	1.5	-109.45	23.0	-1.0	14.1	11.1	3.03	4.666		
800.0	797.2	801.0	797.5	1.8	1.9	-102.80	40.6	6.2	17.3	13.6	3.66	4.713		
900.0	895.4	901.0	894.9	2.2	2.2	-90.82	60.7	15.9	19.6	15.2	4.40	4.457		
1,000.0	993.6	1,000.9	992.3	2.5	2.7	-81.35	80.9	25.7	22.6	17.4	5.15	4.384		
1,100.0	1,091.9	1,100.8	1,089.6	2.9	3.1	-74.22	101.1	35.5	26.0	20.1	5.89	4.421		
1,200.0	1,190.1	1,200.7	1,187.0	3.3	3.5	-68.83	121.3	45.3	29.8	23.2	6.60	4.509		
1,300.0	1,288.3	1,300.6	1,284.3	3.7	4.0	-64.67	141.4	55.1	33.7	26.4	7.30	4.619		
1,400.0	1,386.6	1,400.5	1,381.7	4.1	4.4	-61.39	161.6	64.9	37.8	29.8	7.99	4.734		
1,500.0	1,484.8	1,500.4	1,479.0	4.5	4.9	-58.76	181.8	74.7	42.0	33.4	8.67	4.847		
1,600.0	1,583.1	1,600.3	1,576.3	4.9	5.4	-56.62	202.0	84.5	46.3	37.0	9.35	4.954		
1,700.0	1,681.3	1,700.2	1,673.7	5.3	5.8	-54.83	222.2	94.3	50.6	40.6	10.02	5.055		
1,800.0	1,779.5	1,800.1	1,771.0	5.7	6.3	-53.33	242.3	104.1	55.0	44.3	10.68	5.148		
1,900.0	1,877.8	1,900.0	1,868.4	6.1	6.7	-52.05	262.5	113.9	59.4	48.0	11.35	5.234		
2,000.0	1,976.0	1,999.9	1,965.7	6.5	7.2	-50.95	282.7	123.7	63.8	51.8	12.01	5.313		
2,100.0	2,074.2	2,099.8	2,063.1	6.9	7.7	-49.99	302.9	133.5	68.3	55.6	12.67	5.386		
2,200.0	2,172.5	2,199.7	2,160.4	7.3	8.1	-49.15	323.1	143.3	72.7	59.4	13.33	5.454		
2,300.0	2,270.7	2,299.5	2,257.7	7.7	8.6	-48.40	343.3	153.1	77.2	63.2	13.99	5.516		
2,400.0	2,369.0	2,399.4	2,355.1	8.1	9.1	-47.74	363.4	162.9	81.7	67.0	14.65	5.574		
2,500.0	2,467.2	2,499.3	2,452.4	8.5	9.5	-47.15	383.6	172.7	86.2	70.9	15.31	5.628		
2,600.0	2,565.4	2,599.2	2,549.8	8.9	10.0	-46.61	403.8	182.5	90.7	74.7	15.97	5.678		
2,700.0	2,663.7	2,699.1	2,647.1	9.3	10.5	-46.13	424.0	192.3	95.2	78.6	16.63	5.724		
2,800.0	2,761.9	2,799.0	2,744.5	9.7	10.9	-45.69	444.2	202.1	99.7	82.4	17.29	5.767		
2,900.0	2,860.1	2,898.9	2,841.8	10.2	11.4	-45.29	464.3	211.9	104.2	86.3	17.94	5.808		
3,000.0	2,958.4	2,998.8	2,939.1	10.6	11.8	-44.92	484.5	221.7	108.7	90.1	18.60	5.846		
3,100.0	3,056.6	3,098.7	3,036.5	11.0	12.3	-44.58	504.7	231.5	113.3	94.0	19.26	5.882		
3,200.0	3,154.8	3,198.6	3,133.8	11.4	12.8	-44.26	524.9	241.3	117.8	97.9	19.92	5.915		
3,300.0	3,253.1	3,298.5	3,231.2	11.8	13.2	-43.97	545.1	251.1	122.4	101.8	20.57	5.947		
3,400.0	3,351.3	3,398.4	3,328.5	12.2	13.7	-43.71	565.2	260.9	126.9	105.7	21.23	5.977		
3,500.0	3,449.6	3,498.3	3,425.9	12.6	14.2	-43.46	585.4	270.7	131.4	109.5	21.89	6.005		
3,600.0	3,547.8	3,598.2	3,523.2	13.0	14.7	-43.22	605.6	280.5	136.0	113.4	22.55	6.031		
3,700.0	3,646.0	3,698.1	3,620.6	13.4	15.1	-43.00	625.8	290.3	140.5	117.3	23.20	6.057		
3,800.0	3,744.3	3,798.0	3,717.9	13.8	15.6	-42.80	646.0	300.1	145.1	121.2	23.86	6.081		
3,900.0	3,842.5	3,897.9	3,815.2	14.2	16.1	-42.60	666.2	309.9	149.6	125.1	24.52	6.103		
4,000.0	3,940.7	3,997.8	3,912.6	14.6	16.5	-42.42	686.3	319.7	154.2	129.0	25.17	6.125		
4,100.0	4,039.0	4,097.7	4,009.9	15.0	17.0	-42.25	706.5	329.5	158.7	132.9	25.83	6.146		
4,200.0	4,137.2	4,197.6	4,107.3	15.5	17.5	-42.09	726.7	339.3	163.3	136.8	26.48	6.166		
4,300.0	4,235.4	4,297.5	4,204.6	15.9	17.9	-41.94	746.9	349.1	167.8	140.7	27.14	6.184		
4,400.0	4,333.7	4,397.3	4,302.0	16.3	18.4	-41.79	767.1	358.9	172.4	144.6	27.80	6.202		
4,500.0	4,431.9	4,497.2	4,399.3	16.7	18.9	-41.66	787.2	368.7	177.0	148.5	28.45	6.220		
4,600.0	4,530.2	4,597.1	4,496.6	17.1	19.3	-41.53	807.4	378.5	181.5	152.4	29.11	6.236		
4,700.0	4,628.4	4,697.0	4,594.0	17.5	19.8	-41.40	827.6	388.3	186.1	156.3	29.76	6.252		
4,800.0	4,726.6	4,796.9	4,691.3	17.9	20.3	-41.29	847.8	398.1	190.6	160.2	30.42	6.267		
4,900.0	4,824.9	4,896.8	4,788.7	18.3	20.7	-41.17	868.0	407.9	195.2	164.1	31.07	6.282		
5,000.0	4,923.1	4,996.7	4,886.0	18.7	21.2	-41.07	888.2	417.7	199.8	168.0	31.73	6.296		

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

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-151.28	-21.1	-11.6	24.1					
100.0	100.0	100.0	100.0	0.1	0.1	-151.28	-21.1	-11.6	24.1	23.9	0.18	133.939		
200.0	200.0	200.0	200.0	0.3	0.3	-151.28	-21.1	-11.6	24.1	23.5	0.63	38.268		
300.0	300.0	300.2	300.2	0.5	0.5	-150.97	-21.0	-11.6	24.0	22.9	1.08	22.214		
400.0	400.0	400.8	400.7	0.8	0.8	-142.78	-17.3	-13.1	21.7	20.2	1.54	14.123		
462.7	462.7	463.7	463.4	0.9	0.9	-163.40	-12.5	-15.1	20.6	18.7	1.84	11.168	CC, ES	
500.0	500.0	501.1	500.5	1.0	1.0	-154.32	-8.7	-16.4	21.0	18.9	2.03	10.303		
600.0	599.6	601.4	599.9	1.2	1.3	-132.21	4.7	-18.9	24.9	22.4	2.57	9.700	SF	
700.0	698.8	701.4	698.3	1.5	1.6	-116.86	22.9	-19.4	32.3	29.2	3.15	10.277		
800.0	797.2	801.1	795.3	1.8	2.0	-106.78	45.8	-18.0	42.0	38.2	3.82	10.990		
900.0	895.4	900.1	890.4	2.2	2.5	-96.04	73.1	-14.7	52.7	48.1	4.58	11.511		
1,000.0	993.6	998.0	982.9	2.5	3.1	-84.81	104.6	-9.6	65.9	60.5	5.37	12.257		
1,100.0	1,091.9	1,094.7	1,072.6	2.9	3.7	-74.41	139.9	-2.8	82.8	76.6	6.14	13.483		
1,200.0	1,190.1	1,192.0	1,162.4	3.3	4.4	-66.82	176.8	4.6	102.3	95.4	6.86	14.916		
1,300.0	1,288.3	1,289.3	1,252.1	3.7	5.1	-61.69	213.7	12.0	123.1	115.5	7.56	16.272		
1,400.0	1,386.6	1,386.6	1,341.9	4.1	5.8	-58.05	250.5	19.4	144.5	136.2	8.26	17.492		
1,500.0	1,484.8	1,484.0	1,431.7	4.5	6.5	-55.35	287.4	26.8	166.3	157.3	8.96	18.570		
1,600.0	1,583.1	1,581.3	1,521.4	4.9	7.2	-53.28	324.3	34.2	188.4	178.8	9.65	19.519		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	120.23	-5.1	8.8	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	120.23	-5.1	8.8	10.1	9.9	0.18	56.326		
200.0	200.0	200.0	200.0	0.3	0.3	120.23	-5.1	8.8	10.1	9.5	0.63	16.093		
300.0	300.0	300.0	300.0	0.5	0.5	120.23	-5.1	8.8	10.1	9.0	1.08	9.388		
400.0	400.0	400.0	400.0	0.8	0.8	120.23	-5.1	8.8	10.1	8.6	1.53	6.627		
442.2	442.2	442.2	442.2	0.9	0.9	90.00	-5.1	8.8	10.1	8.4	1.72	5.890 CC		
500.0	500.0	500.0	500.0	1.0	1.0	101.99	-5.1	8.8	10.3	8.4	1.98	5.227 ES, SF		
600.0	599.6	599.6	599.6	1.2	1.2	134.50	-5.1	8.8	14.2	11.7	2.51	5.667		
700.0	698.8	698.8	698.8	1.5	1.4	150.17	-5.2	11.3	25.0	21.9	3.09	8.091		
800.0	797.2	797.6	797.4	1.8	1.6	154.87	-5.5	16.7	40.6	37.0	3.62	11.220		
900.0	895.4	896.2	895.8	2.2	1.8	157.36	-5.7	22.1	57.1	53.0	4.08	14.006		
1,000.0	993.6	994.8	994.3	2.5	2.1	158.74	-6.0	27.5	73.7	69.1	4.55	16.200		
1,100.0	1,091.9	1,093.4	1,092.7	2.9	2.3	159.61	-6.2	32.9	90.3	85.2	5.03	17.951		
1,200.0	1,190.1	1,192.0	1,191.2	3.3	2.5	160.21	-6.5	38.3	106.9	101.4	5.52	19.371		
1,300.0	1,288.3	1,290.6	1,289.7	3.7	2.8	160.65	-6.7	43.7	123.5	117.5	6.01	20.540		
1,400.0	1,386.6	1,389.2	1,388.1	4.1	3.0	160.98	-7.0	49.1	140.2	133.6	6.51	21.516		
1,500.0	1,484.8	1,487.8	1,486.6	4.5	3.2	161.25	-7.2	54.5	156.8	149.8	7.02	22.341		
1,600.0	1,583.1	1,586.4	1,585.0	4.9	3.5	161.46	-7.5	59.9	173.4	165.9	7.52	23.047		
1,700.0	1,681.3	1,685.0	1,683.5	5.3	3.7	161.64	-7.7	65.3	190.1	182.0	8.03	23.658		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	177.49	-19.3	0.8	19.3				
100.0	100.0	100.0	100.0	0.1	0.1	177.49	-19.3	0.8	19.3	19.1	0.18	107.460	
200.0	200.0	200.0	200.0	0.3	0.3	177.49	-19.3	0.8	19.3	18.7	0.63	30.703	
300.0	300.0	300.0	300.0	0.5	0.5	177.49	-19.3	0.8	19.3	18.2	1.08	17.910	
400.0	400.0	400.0	400.0	0.8	0.8	177.49	-19.3	0.8	19.3	17.8	1.53	12.642 CC, ES	
500.0	500.0	500.0	500.0	1.0	1.0	148.63	-19.3	0.8	21.5	19.5	2.01	10.683 SF	
600.0	599.6	599.2	599.2	1.2	1.2	151.79	-20.3	3.2	29.2	26.7	2.54	11.518	
700.0	698.8	697.6	697.3	1.5	1.4	150.00	-23.3	10.3	43.1	40.1	3.08	13.991	
800.0	797.2	795.5	794.5	1.8	1.6	148.09	-27.7	20.6	62.5	58.8	3.62	17.230	
900.0	895.4	893.4	891.8	2.2	1.9	147.41	-32.1	31.1	82.6	78.5	4.13	20.008	
1,000.0	993.6	991.4	989.0	2.5	2.2	146.99	-36.6	41.7	102.8	98.1	4.66	22.046	
1,100.0	1,091.9	1,089.3	1,086.3	2.9	2.5	146.71	-41.0	52.2	123.0	117.8	5.22	23.579	
1,200.0	1,190.1	1,187.3	1,183.6	3.3	2.7	146.51	-45.5	62.7	143.2	137.4	5.78	24.759	
1,300.0	1,288.3	1,285.2	1,280.9	3.7	3.0	146.36	-50.0	73.2	163.3	157.0	6.36	25.689	
1,400.0	1,386.6	1,383.2	1,378.1	4.1	3.3	146.24	-54.4	83.8	183.5	176.6	6.94	26.435	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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	-164.36	-39.3	-11.0	40.8					
100.0	100.0	100.0	100.0	0.1	0.1	-164.36	-39.3	-11.0	40.8	40.7	0.18	227.172		
200.0	200.0	200.0	200.0	0.3	0.3	-164.36	-39.3	-11.0	40.8	40.2	0.63	64.906		
300.0	300.0	300.0	300.0	0.5	0.5	-164.36	-39.3	-11.0	40.8	39.8	1.08	37.862		
400.0	400.0	400.0	400.0	0.8	0.8	-164.36	-39.3	-11.0	40.8	39.3	1.53	26.726 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	163.77	-39.3	-11.0	43.4	41.3	2.02	21.436		
600.0	599.6	598.4	598.4	1.2	1.2	163.61	-41.1	-9.2	52.1	49.5	2.55	20.418 SF		
700.0	698.8	695.6	695.2	1.5	1.4	160.88	-46.3	-3.9	68.2	65.1	3.11	21.965		
800.0	797.2	790.6	789.5	1.8	1.6	157.59	-54.8	4.8	91.5	87.9	3.64	25.133		
900.0	895.4	884.7	882.2	2.2	1.9	154.07	-66.2	16.5	118.4	114.3	4.15	28.576		
1,000.0	993.6	980.6	976.3	2.5	2.2	151.44	-78.6	29.2	146.4	141.7	4.68	31.286		
1,100.0	1,091.9	1,076.4	1,070.5	2.9	2.6	149.64	-91.1	41.9	174.6	169.3	5.24	33.311		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-162.52	-46.6	-14.7	48.9					
100.0	100.0	100.0	100.0	0.1	0.1	-162.52	-46.6	-14.7	48.9	48.7	0.18	271.850		
200.0	200.0	200.0	200.0	0.3	0.3	-162.52	-46.6	-14.7	48.9	48.3	0.63	77.672		
300.0	300.0	300.0	300.0	0.5	0.5	-162.52	-46.6	-14.7	48.9	47.8	1.08	45.308		
400.0	400.0	400.0	400.0	0.8	0.8	-162.52	-46.6	-14.7	48.9	47.4	1.53	31.982	CC, ES	
500.0	500.0	498.5	498.5	1.0	1.0	162.94	-48.5	-13.0	52.7	50.7	2.00	26.324		
600.0	599.6	596.1	595.7	1.2	1.2	159.14	-54.1	-8.0	64.5	61.9	2.54	25.390	SF	
700.0	698.8	691.7	690.6	1.5	1.4	155.13	-63.2	0.2	84.3	81.2	3.12	26.980		
800.0	797.2	784.6	782.0	1.8	1.7	151.89	-75.4	11.1	111.7	108.0	3.69	30.247		
900.0	895.4	875.2	870.3	2.2	2.1	148.94	-90.4	24.6	143.2	139.0	4.23	33.860		
1,000.0	993.6	969.3	961.5	2.5	2.5	146.47	-107.5	40.0	176.6	171.8	4.81	36.743		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-150.57	-41.5	-23.4	47.7								
100.0	100.0	100.0	100.0	0.1	0.1	-150.57	-41.5	-23.4	47.7	47.5	0.18	265.168					
200.0	200.0	200.0	200.0	0.3	0.3	-150.57	-41.5	-23.4	47.7	47.1	0.63	75.762					
300.0	300.0	300.0	300.0	0.5	0.5	-150.57	-41.5	-23.4	47.7	46.6	1.08	44.195 CC, ES					
400.0	400.0	397.5	397.5	0.8	0.7	-151.03	-43.9	-24.3	50.2	48.7	1.51	33.352					
500.0	500.0	494.2	493.9	1.0	0.9	175.14	-50.8	-26.8	60.4	58.3	2.01	29.991 SF					
600.0	599.6	590.0	589.0	1.2	1.2	173.83	-62.0	-30.1	80.1	77.5	2.60	30.787					
700.0	698.8	684.2	682.0	1.5	1.5	171.10	-76.8	-30.8	107.2	104.0	3.19	33.641					
800.0	797.2	775.3	771.3	1.8	1.8	168.12	-94.4	-28.7	141.2	137.5	3.72	37.904					
900.0	895.4	866.7	860.4	2.2	2.2	165.38	-114.6	-24.4	178.0	173.8	4.19	42.470					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	29.10	14.2	7.9	16.3					
100.0	100.0	100.0	100.0	0.1	0.1	29.10	14.2	7.9	16.3	16.1	0.18	90.382		
200.0	200.0	200.0	200.0	0.3	0.3	29.10	14.2	7.9	16.3	15.6	0.63	25.824	CC, ES	
300.0	300.0	299.1	299.1	0.5	0.5	32.34	15.7	10.0	18.7	17.6	1.08	17.290		
400.0	400.0	397.7	397.4	0.8	0.8	38.40	20.3	16.1	26.1	24.5	1.55	16.772	SF	
500.0	500.0	495.6	494.5	1.0	1.1	11.07	27.9	26.2	36.1	34.0	2.06	17.496		
600.0	599.6	592.9	590.2	1.2	1.4	16.34	38.3	40.2	46.4	43.8	2.61	17.761		
700.0	698.8	689.6	684.3	1.5	1.8	21.39	51.5	57.9	57.1	53.9	3.18	17.960		
800.0	797.2	785.7	776.5	1.8	2.3	26.09	67.5	79.3	68.8	65.1	3.73	18.443		
900.0	895.4	880.5	866.2	2.2	2.9	29.21	85.9	104.0	85.0	80.7	4.28	19.863		
1,000.0	993.6	976.5	955.6	2.5	3.5	30.92	106.9	132.1	105.3	100.4	4.88	21.600		
1,100.0	1,091.9	1,074.3	1,046.5	2.9	4.2	32.07	128.4	160.9	126.1	120.6	5.49	22.973		
1,200.0	1,190.1	1,172.1	1,137.4	3.3	4.9	32.89	149.9	189.8	147.0	140.9	6.12	24.032		
1,300.0	1,288.3	1,269.9	1,228.3	3.7	5.6	33.51	171.5	218.7	167.8	161.1	6.76	24.814		
1,400.0	1,386.6	1,367.7	1,319.3	4.1	6.4	33.99	193.0	247.5	188.7	181.3	7.42	25.430		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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		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			
0.0	0.0	0.0	0.0	0.0	0.0	28.50	7.3	4.0	8.3					
100.0	100.0	100.0	100.0	0.1	0.1	28.50	7.3	4.0	8.3	8.1	0.18	46.068		
200.0	200.0	200.0	200.0	0.3	0.3	28.50	7.3	4.0	8.3	7.7	0.63	13.162		
234.0	234.0	234.0	234.0	0.4	0.4	28.50	7.3	4.0	8.3	7.5	0.78	10.593 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.5	30.58	7.6	4.5	8.9	7.8	1.08	8.227 SF		
400.0	400.0	399.1	399.0	0.8	0.8	40.68	10.4	8.9	13.7	12.2	1.53	8.928		
500.0	500.0	497.9	497.2	1.0	1.0	17.08	15.8	17.6	21.3	19.3	2.04	10.459		
600.0	599.6	596.2	594.3	1.2	1.3	25.66	23.8	30.5	29.5	27.0	2.57	11.499		
700.0	698.8	693.9	689.9	1.5	1.7	33.50	34.4	47.6	38.8	35.7	3.11	12.459		
800.0	797.2	791.0	783.8	1.8	2.1	40.26	47.4	68.6	49.7	46.1	3.67	13.542		
900.0	895.4	887.0	875.2	2.2	2.7	43.67	62.8	93.4	65.2	61.0	4.27	15.283		
1,000.0	993.6	982.6	964.8	2.5	3.3	44.65	80.4	121.7	85.3	80.3	4.91	17.354		
1,100.0	1,091.9	1,080.3	1,056.0	2.9	4.0	45.03	99.0	151.6	106.4	100.9	5.58	19.091		
1,200.0	1,190.1	1,178.0	1,147.2	3.3	4.7	45.29	117.6	181.5	127.6	121.4	6.25	20.431		
1,300.0	1,288.3	1,275.8	1,238.3	3.7	5.3	45.48	136.1	211.4	148.8	141.8	6.94	21.443		
1,400.0	1,386.6	1,373.5	1,329.5	4.1	6.0	45.61	154.7	241.3	170.0	162.3	7.64	22.252		
1,500.0	1,484.8	1,471.2	1,420.7	4.5	6.7	45.72	173.3	271.2	191.1	182.8	8.34	22.906		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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 32A-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	61.37	9.1	16.7	19.0					
100.0	100.0	100.0	100.0	0.1	0.1	61.37	9.1	16.7	19.0	18.8	0.18	105.526		
200.0	200.0	200.0	200.0	0.3	0.3	61.37	9.1	16.7	19.0	18.3	0.63	30.150 CC, ES		
300.0	300.0	299.3	299.2	0.5	0.5	62.54	9.4	18.1	20.4	19.3	1.07	18.977		
400.0	400.0	397.9	397.6	0.8	0.8	66.22	10.7	24.3	26.7	25.1	1.53	17.380 SF		
500.0	500.0	495.8	494.9	1.0	1.0	39.18	13.1	35.4	36.0	34.0	2.02	17.811		
600.0	599.6	592.9	590.6	1.2	1.3	46.95	16.4	51.2	47.0	44.5	2.53	18.581		
700.0	698.8	689.0	684.5	1.5	1.7	54.75	20.7	71.5	60.5	57.4	3.06	19.742		
800.0	797.2	783.9	776.0	1.8	2.2	61.65	25.9	96.1	77.2	73.5	3.66	21.109		
900.0	895.4	879.2	866.6	2.2	2.8	65.79	32.0	124.8	98.4	94.1	4.32	22.760		
1,000.0	993.6	976.6	959.0	2.5	3.4	68.37	38.3	154.9	120.6	115.6	5.03	23.997		
1,100.0	1,091.9	1,074.0	1,051.4	2.9	4.0	70.14	44.7	185.0	143.1	137.3	5.77	24.809		
1,200.0	1,190.1	1,171.3	1,143.8	3.3	4.6	71.44	51.0	215.0	165.6	159.1	6.52	25.379		
1,300.0	1,288.3	1,268.7	1,236.2	3.7	5.2	72.42	57.4	245.1	188.2	180.9	7.30	25.771		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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	80.26	2.2	12.7	12.9				
100.0	100.0	100.0	100.0	0.1	0.1	80.26	2.2	12.7	12.9	12.7	0.18	71.679	
200.0	200.0	200.0	200.0	0.3	0.3	80.26	2.2	12.7	12.9	12.3	0.63	20.480	
300.0	300.0	300.0	300.0	0.5	0.5	80.26	2.2	12.7	12.9	11.8	1.08	11.946 CC, ES	
400.0	400.0	399.3	399.2	0.8	0.8	82.24	2.1	15.3	15.4	13.9	1.52	10.157 SF	
500.0	500.0	498.1	497.7	1.0	1.0	58.01	1.8	23.0	21.7	19.7	1.98	10.938	
600.0	599.6	596.1	594.9	1.2	1.2	70.43	1.3	35.6	31.2	28.7	2.45	12.710	
700.0	698.8	693.0	690.2	1.5	1.6	80.97	0.6	53.0	45.3	42.4	2.98	15.200	
800.0	797.2	788.4	783.1	1.8	2.0	88.43	-0.2	74.8	64.5	60.9	3.61	17.849	
900.0	895.4	882.3	873.3	2.2	2.5	91.44	-1.2	100.7	88.3	84.0	4.31	20.488	
1,000.0	993.6	978.3	964.7	2.5	3.0	92.35	-2.4	130.0	114.7	109.6	5.04	22.734	
1,100.0	1,091.9	1,074.7	1,056.5	2.9	3.6	92.91	-3.5	159.5	141.1	135.3	5.79	24.356	
1,200.0	1,190.1	1,171.2	1,148.4	3.3	4.2	93.30	-4.7	189.0	167.5	161.0	6.56	25.533	
1,300.0	1,288.3	1,267.6	1,240.2	3.7	4.8	93.58	-5.8	218.5	194.0	186.6	7.34	26.419	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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	158.24	-12.0	4.8	12.9				
100.0	100.0	100.0	100.0	0.1	0.1	158.24	-12.0	4.8	12.9	12.8	0.18	72.000	
200.0	200.0	200.0	200.0	0.3	0.3	158.24	-12.0	4.8	12.9	12.3	0.63	20.571	
300.0	300.0	300.0	300.0	0.5	0.5	158.24	-12.0	4.8	12.9	11.9	1.08	12.000 CC, ES	
400.0	400.0	399.6	399.6	0.8	0.8	153.69	-12.5	6.2	13.9	12.4	1.52	9.184 SF	
500.0	500.0	498.8	498.5	1.0	1.0	114.01	-14.6	12.3	20.0	18.1	1.97	10.156	
600.0	599.6	596.9	596.0	1.2	1.2	113.65	-18.3	23.1	32.4	29.9	2.48	13.076	
700.0	698.8	693.6	691.3	1.5	1.5	115.03	-23.5	38.3	50.8	47.8	3.05	16.680	
800.0	797.2	788.2	783.7	1.8	1.9	116.39	-30.1	57.7	75.0	71.3	3.68	20.393	
900.0	895.4	881.0	873.1	2.2	2.4	115.94	-38.0	80.8	103.2	98.8	4.34	23.773	
1,000.0	993.6	971.5	959.2	2.5	2.9	114.40	-47.1	107.3	134.8	129.8	5.04	26.763	
1,100.0	1,091.9	1,065.0	1,047.3	2.9	3.5	112.81	-57.3	137.1	168.6	162.8	5.77	29.220	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-172.96	-25.1	-3.1	25.3					
100.0	100.0	100.0	100.0	0.1	0.1	-172.96	-25.1	-3.1	25.3	25.1	0.18	140.855		
200.0	200.0	200.0	200.0	0.3	0.3	-172.96	-25.1	-3.1	25.3	24.7	0.63	40.244		
234.7	234.7	234.7	234.7	0.4	0.4	-172.96	-25.1	-3.1	25.3	24.5	0.79	32.242	CC, ES	
300.0	300.0	299.7	299.7	0.5	0.5	-174.26	-25.5	-2.6	25.6	24.6	1.07	23.947		
400.0	400.0	398.8	398.7	0.8	0.7	176.48	-28.3	1.7	28.4	26.9	1.51	18.812		
500.0	500.0	497.1	496.4	1.0	1.0	133.15	-33.9	10.2	37.3	35.3	2.01	18.564	SF	
600.0	599.6	593.8	592.0	1.2	1.3	127.80	-42.1	22.7	54.2	51.6	2.56	21.147		
700.0	698.8	688.3	684.4	1.5	1.7	125.67	-52.6	38.8	78.2	75.0	3.16	24.766		
800.0	797.2	779.9	773.1	1.8	2.1	125.05	-65.2	58.0	108.7	104.9	3.79	28.697		
900.0	895.4	868.9	858.1	2.2	2.6	124.20	-79.7	80.0	143.4	139.0	4.43	32.363		
1,000.0	993.6	955.2	939.3	2.5	3.2	122.91	-95.8	104.5	181.6	176.5	5.10	35.596		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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						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	-167.72	-32.4	-7.1	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	-167.72	-32.4	-7.1	33.2	33.0	0.18	184.552		
200.0	200.0	200.0	200.0	0.3	0.3	-167.72	-32.4	-7.1	33.2	32.6	0.63	52.729		
300.0	300.0	300.0	300.0	0.5	0.5	-167.72	-32.4	-7.1	33.2	32.1	1.08	30.759		
400.0	400.0	400.0	400.0	0.8	0.8	-167.72	-32.4	-7.1	33.2	31.7	1.53	21.712 CC, ES		
500.0	500.0	499.0	498.9	1.0	1.0	157.37	-34.2	-5.2	37.0	35.0	2.00	18.474 SF		
600.0	599.6	597.0	596.6	1.2	1.2	153.17	-39.4	0.3	48.6	46.0	2.53	19.170		
700.0	698.8	693.1	692.0	1.5	1.4	149.30	-47.8	9.3	68.0	64.9	3.11	21.850		
800.0	797.2	786.7	784.1	1.8	1.7	146.49	-59.2	21.4	94.8	91.1	3.68	25.724		
900.0	895.4	878.0	873.0	2.2	2.1	143.78	-73.2	36.3	125.7	121.4	4.24	29.662		
1,000.0	993.6	966.8	958.5	2.5	2.5	141.07	-89.7	53.7	160.1	155.2	4.83	33.106		
1,100.0	1,091.9	1,052.9	1,040.2	2.9	3.0	138.53	-108.2	73.4	198.0	192.5	5.47	36.217		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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-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	-160.82	-53.5	-18.6	56.7					
100.0	100.0	100.0	100.0	0.1	0.1	-160.82	-53.5	-18.6	56.7	56.5	0.18	315.301		
200.0	200.0	200.0	200.0	0.3	0.3	-160.82	-53.5	-18.6	56.7	56.1	0.63	90.086		
300.0	300.0	300.0	300.0	0.5	0.5	-160.82	-53.5	-18.6	56.7	55.6	1.08	52.550		
400.0	400.0	400.0	400.0	0.8	0.8	-160.82	-53.5	-18.6	56.7	55.2	1.53	37.094 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	166.90	-53.5	-18.6	59.2	57.2	2.02	29.274		
600.0	599.6	599.6	599.6	1.2	1.2	168.38	-53.5	-18.6	66.9	64.3	2.57	26.011		
700.0	698.8	698.8	698.8	1.5	1.4	170.20	-53.5	-18.6	79.7	76.6	3.14	25.357 SF		
800.0	797.2	797.2	797.2	1.8	1.7	171.94	-53.5	-18.6	97.3	93.7	3.66	26.558		
900.0	895.4	895.4	895.4	2.2	1.9	173.24	-53.5	-18.6	115.9	111.8	4.10	28.227		
1,000.0	993.6	993.6	993.6	2.5	2.1	174.17	-53.5	-18.6	134.5	129.9	4.56	29.518		
1,100.0	1,091.9	1,091.9	1,091.9	2.9	2.3	174.88	-53.5	-18.6	153.1	148.1	5.01	30.537		
1,200.0	1,190.1	1,190.1	1,190.1	3.3	2.5	175.44	-53.5	-18.6	171.7	166.2	5.48	31.358		
1,300.0	1,288.3	1,288.3	1,288.3	3.7	2.8	175.89	-53.5	-18.6	190.4	184.4	5.94	32.030		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 21D-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 21D-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 21D-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

