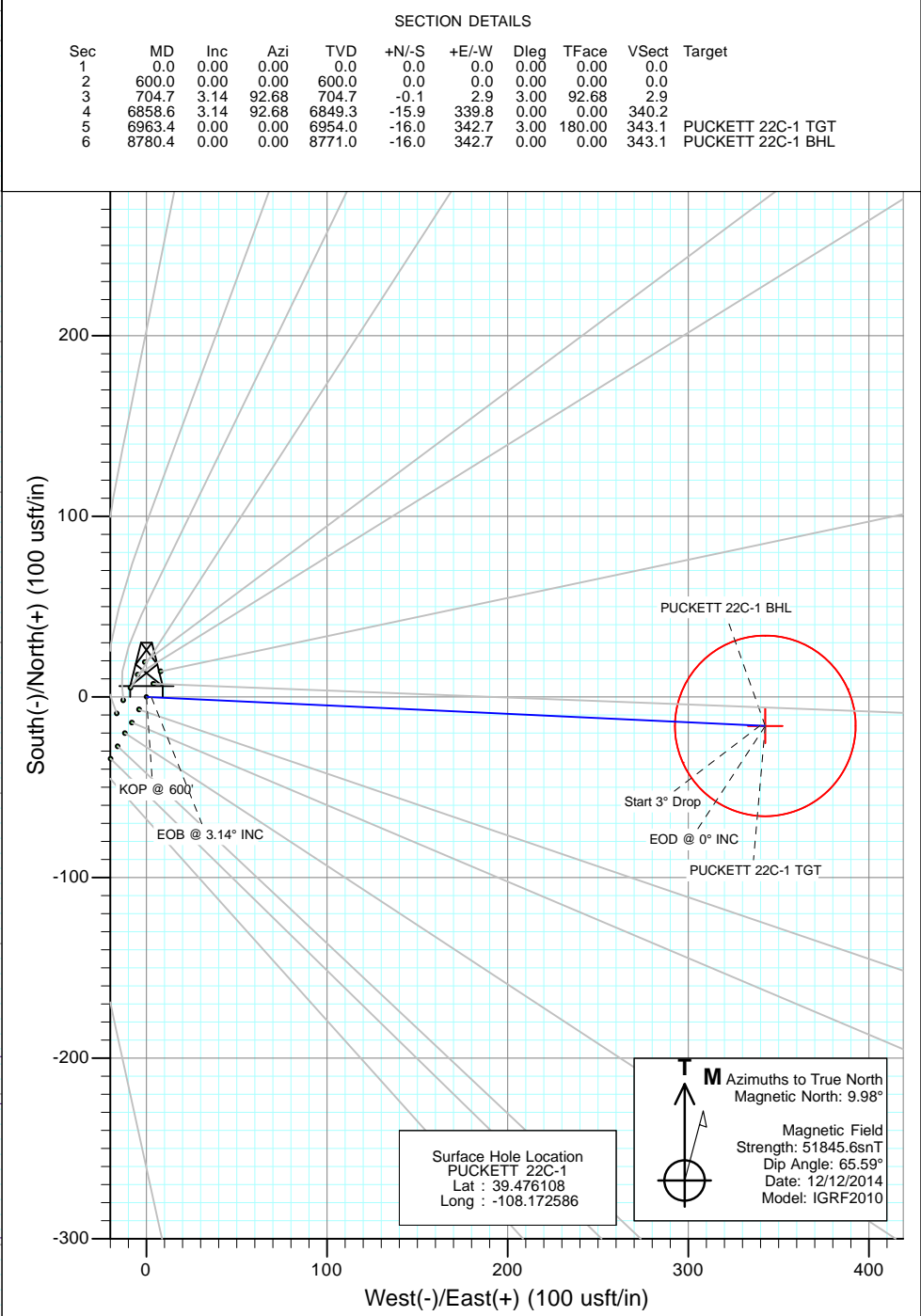
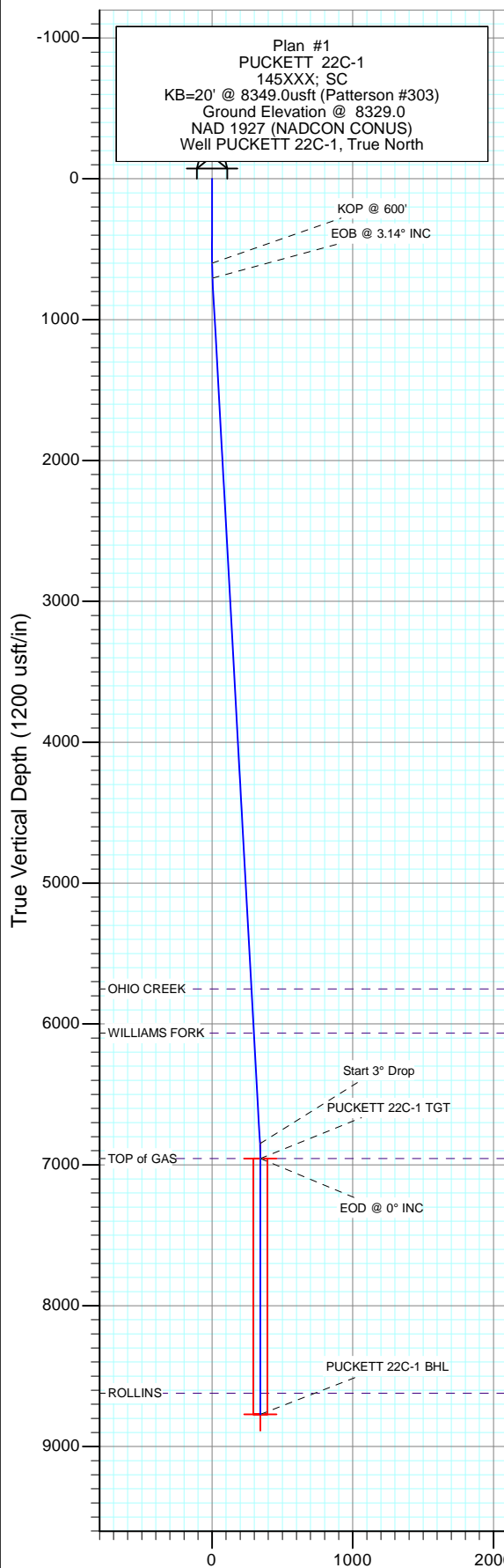


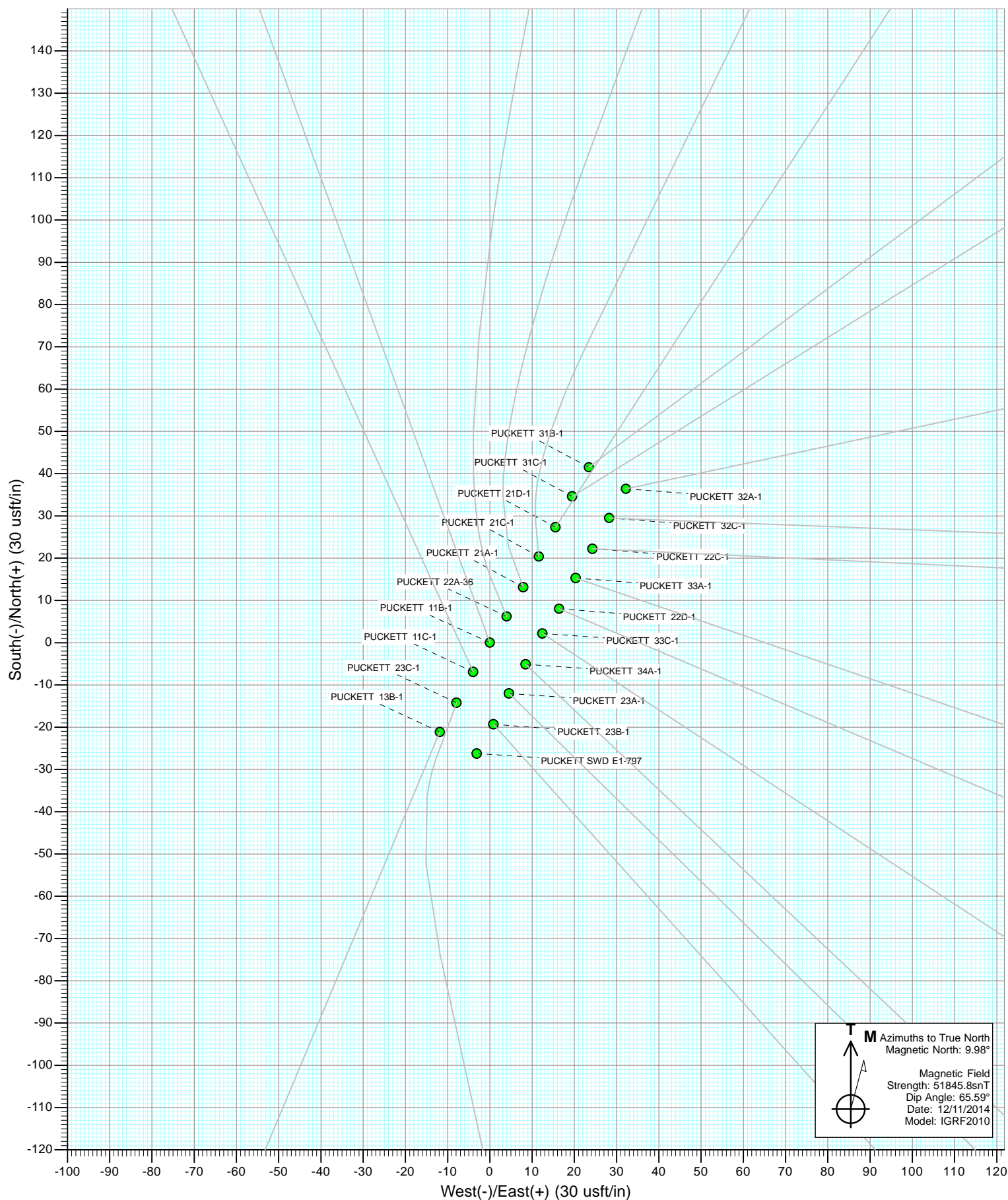


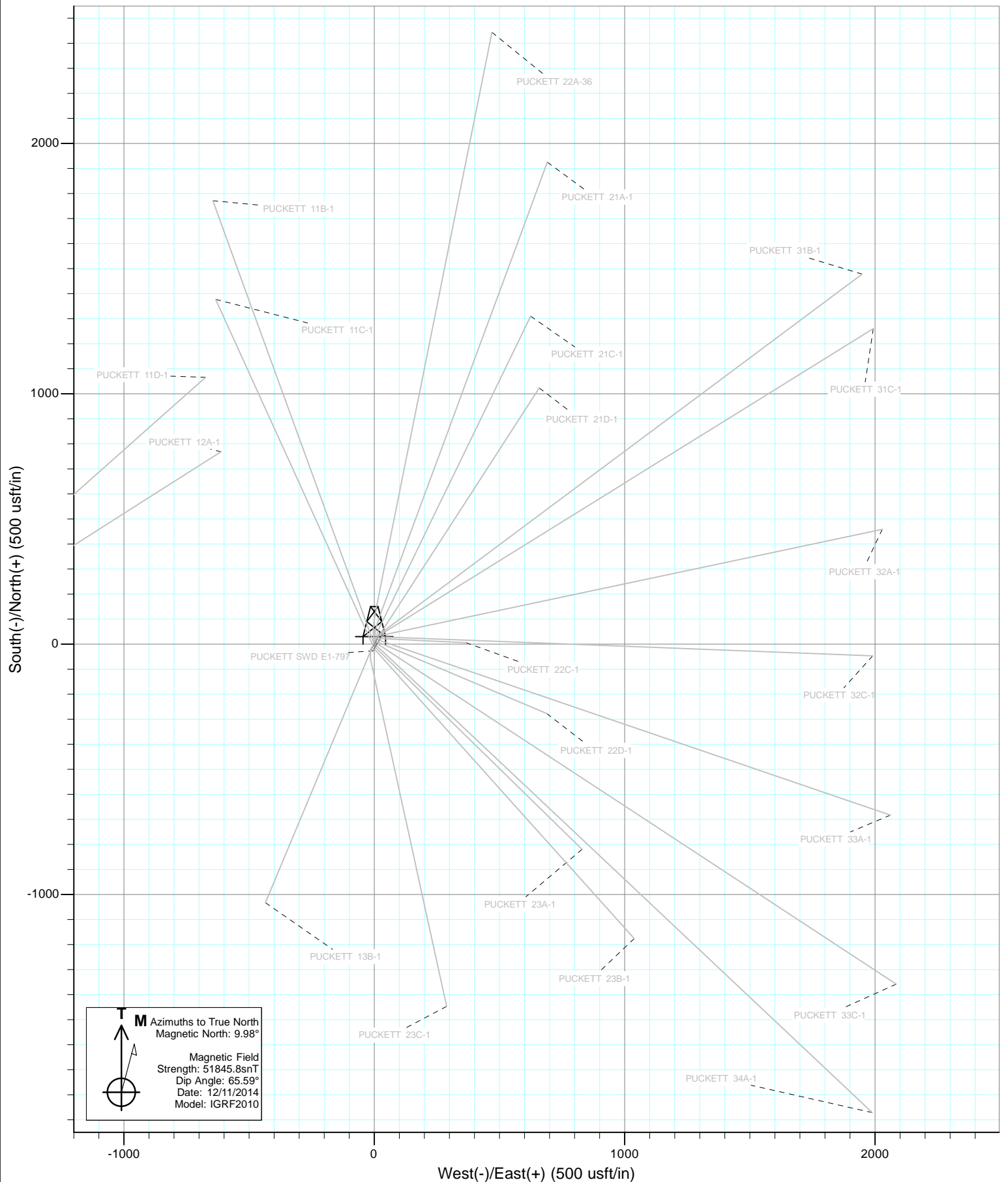
Project: Garfield County, CO
 Site: S1-T7S-R97W (Mesa E1 797)
 Well: PUCKETT 22C-1
 Wellbore: DD
 Design: Plan #1



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 22C-1 TGT	-16.0	342.7	609359.66	1246013.15	39.476064	-108.171372
PUCKETT 22C-1 BHL	-16.0	342.7	609359.66	1246013.15	39.476064	-108.171372

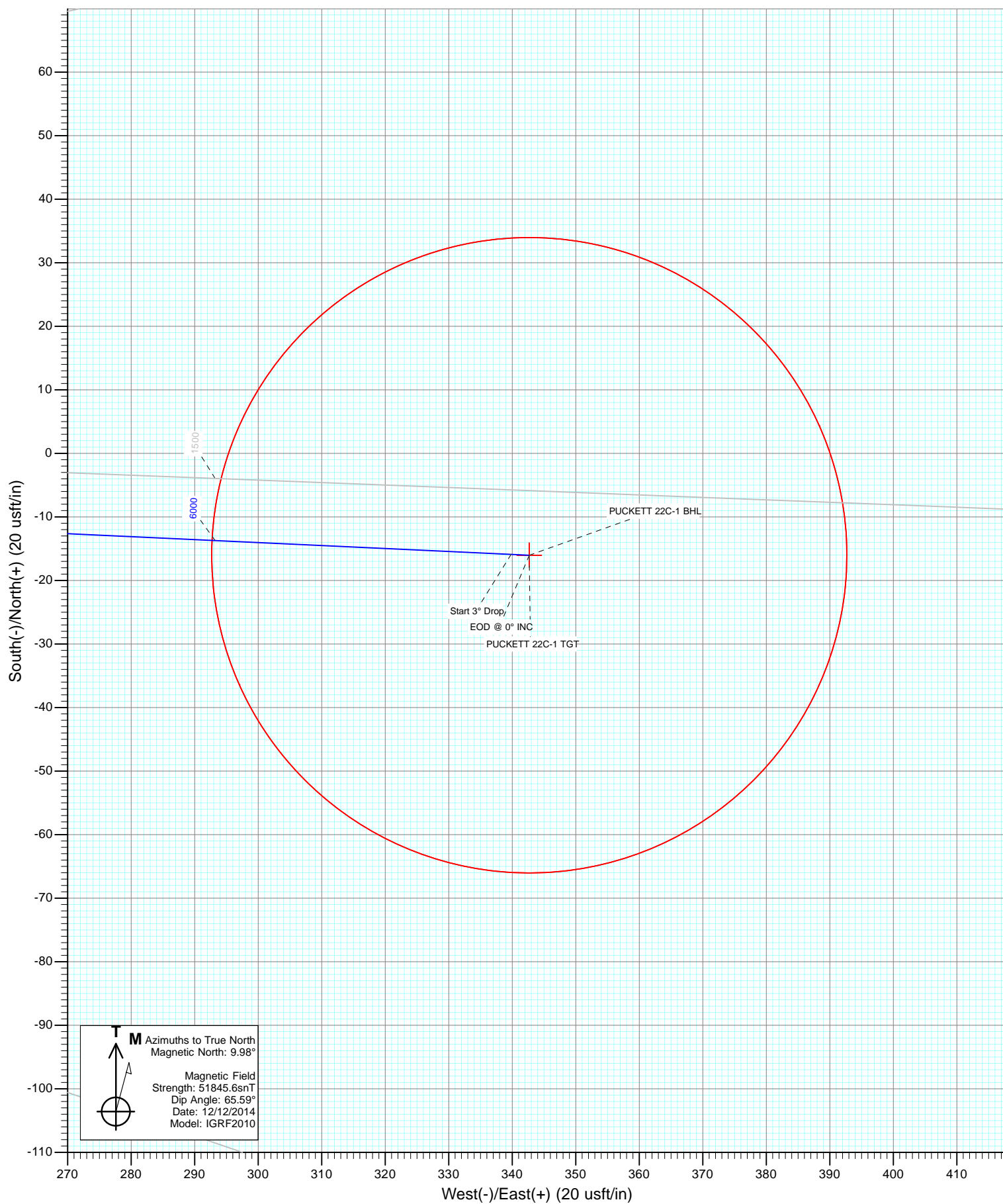
Vertical Section at 92.68° (1200 usft/in)







Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 22C-1
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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 22C-1					
Well Position	+N/-S	0.0 usft	Northing:	609,385.75 usft	Latitude:	39.476108
	+E/-W	0.0 usft	Easting:	1,245,671.07 usft	Longitude:	-108.172586
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	92.68	

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
704.7	3.14	92.68	704.7	-0.1	2.9	3.00	3.00	0.00	92.68	
6,858.6	3.14	92.68	6,849.3	-15.9	339.8	0.00	0.00	0.00	0.00	
6,963.4	0.00	0.00	6,954.0	-16.0	342.7	3.00	-3.00	0.00	180.00	PUCKETT 22C-1 TG1
8,780.4	0.00	0.00	8,771.0	-16.0	342.7	0.00	0.00	0.00	0.00	PUCKETT 22C-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
704.7	3.14	92.68	704.7	-0.1	2.9	2.9	3.00	3.00	EOB @ 3.14° INC
800.0	3.14	92.68	799.8	-0.4	8.1	8.1	0.00	0.00	
900.0	3.14	92.68	899.7	-0.6	13.6	13.6	0.00	0.00	
1,000.0	3.14	92.68	999.5	-0.9	19.0	19.1	0.00	0.00	
1,100.0	3.14	92.68	1,099.4	-1.1	24.5	24.5	0.00	0.00	
1,200.0	3.14	92.68	1,199.2	-1.4	30.0	30.0	0.00	0.00	
1,300.0	3.14	92.68	1,299.1	-1.7	35.5	35.5	0.00	0.00	
1,400.0	3.14	92.68	1,398.9	-1.9	40.9	41.0	0.00	0.00	
1,500.0	3.14	92.68	1,498.8	-2.2	46.4	46.5	0.00	0.00	
1,600.0	3.14	92.68	1,598.6	-2.4	51.9	51.9	0.00	0.00	
1,700.0	3.14	92.68	1,698.5	-2.7	57.4	57.4	0.00	0.00	
1,800.0	3.14	92.68	1,798.3	-2.9	62.8	62.9	0.00	0.00	
1,900.0	3.14	92.68	1,898.2	-3.2	68.3	68.4	0.00	0.00	
2,000.0	3.14	92.68	1,998.0	-3.4	73.8	73.9	0.00	0.00	
2,100.0	3.14	92.68	2,097.8	-3.7	79.3	79.4	0.00	0.00	
2,200.0	3.14	92.68	2,197.7	-4.0	84.7	84.8	0.00	0.00	
2,300.0	3.14	92.68	2,297.5	-4.2	90.2	90.3	0.00	0.00	
2,400.0	3.14	92.68	2,397.4	-4.5	95.7	95.8	0.00	0.00	
2,500.0	3.14	92.68	2,497.2	-4.7	101.2	101.3	0.00	0.00	
2,600.0	3.14	92.68	2,597.1	-5.0	106.6	106.8	0.00	0.00	
2,700.0	3.14	92.68	2,696.9	-5.2	112.1	112.2	0.00	0.00	
2,800.0	3.14	92.68	2,796.8	-5.5	117.6	117.7	0.00	0.00	
2,900.0	3.14	92.68	2,896.6	-5.8	123.1	123.2	0.00	0.00	
3,000.0	3.14	92.68	2,996.5	-6.0	128.5	128.7	0.00	0.00	
3,100.0	3.14	92.68	3,096.3	-6.3	134.0	134.2	0.00	0.00	
3,200.0	3.14	92.68	3,196.2	-6.5	139.5	139.7	0.00	0.00	
3,300.0	3.14	92.68	3,296.0	-6.8	145.0	145.1	0.00	0.00	
3,400.0	3.14	92.68	3,395.9	-7.0	150.4	150.6	0.00	0.00	
3,500.0	3.14	92.68	3,495.7	-7.3	155.9	156.1	0.00	0.00	
3,600.0	3.14	92.68	3,595.6	-7.5	161.4	161.6	0.00	0.00	
3,700.0	3.14	92.68	3,695.4	-7.8	166.9	167.1	0.00	0.00	
3,800.0	3.14	92.68	3,795.3	-8.1	172.4	172.5	0.00	0.00	
3,900.0	3.14	92.68	3,895.1	-8.3	177.8	178.0	0.00	0.00	
4,000.0	3.14	92.68	3,995.0	-8.6	183.3	183.5	0.00	0.00	
4,100.0	3.14	92.68	4,094.8	-8.8	188.8	189.0	0.00	0.00	
4,200.0	3.14	92.68	4,194.7	-9.1	194.3	194.5	0.00	0.00	
4,300.0	3.14	92.68	4,294.5	-9.3	199.7	199.9	0.00	0.00	
4,400.0	3.14	92.68	4,394.4	-9.6	205.2	205.4	0.00	0.00	
4,500.0	3.14	92.68	4,494.2	-9.8	210.7	210.9	0.00	0.00	
4,600.0	3.14	92.68	4,594.1	-10.1	216.2	216.4	0.00	0.00	
4,700.0	3.14	92.68	4,693.9	-10.4	221.6	221.9	0.00	0.00	
4,800.0	3.14	92.68	4,793.8	-10.6	227.1	227.4	0.00	0.00	
4,900.0	3.14	92.68	4,893.6	-10.9	232.6	232.8	0.00	0.00	
5,000.0	3.14	92.68	4,993.5	-11.1	238.1	238.3	0.00	0.00	
5,100.0	3.14	92.68	5,093.3	-11.4	243.5	243.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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
5,200.0	3.14	92.68	5,193.2	-11.6	249.0	249.3	0.00	0.00	
5,300.0	3.14	92.68	5,293.0	-11.9	254.5	254.8	0.00	0.00	
5,400.0	3.14	92.68	5,392.9	-12.1	260.0	260.2	0.00	0.00	
5,500.0	3.14	92.68	5,492.7	-12.4	265.4	265.7	0.00	0.00	
5,600.0	3.14	92.68	5,592.6	-12.7	270.9	271.2	0.00	0.00	
5,700.0	3.14	92.68	5,692.4	-12.9	276.4	276.7	0.00	0.00	
5,758.7	3.14	92.68	5,751.0	-13.1	279.6	279.9	0.00	0.00	OHIO CREEK
5,800.0	3.14	92.68	5,792.3	-13.2	281.9	282.2	0.00	0.00	
5,900.0	3.14	92.68	5,892.1	-13.4	287.3	287.7	0.00	0.00	
6,000.0	3.14	92.68	5,992.0	-13.7	292.8	293.1	0.00	0.00	
6,072.1	3.14	92.68	6,064.0	-13.9	296.8	297.1	0.00	0.00	WILLIAMS FORK
6,100.0	3.14	92.68	6,091.8	-13.9	298.3	298.6	0.00	0.00	
6,200.0	3.14	92.68	6,191.7	-14.2	303.8	304.1	0.00	0.00	
6,300.0	3.14	92.68	6,291.5	-14.5	309.2	309.6	0.00	0.00	
6,400.0	3.14	92.68	6,391.4	-14.7	314.7	315.1	0.00	0.00	
6,500.0	3.14	92.68	6,491.2	-15.0	320.2	320.5	0.00	0.00	
6,600.0	3.14	92.68	6,591.1	-15.2	325.7	326.0	0.00	0.00	
6,700.0	3.14	92.68	6,690.9	-15.5	331.1	331.5	0.00	0.00	
6,800.0	3.14	92.68	6,790.8	-15.7	336.6	337.0	0.00	0.00	
6,858.6	3.14	92.68	6,849.3	-15.9	339.8	340.2	0.00	0.00	Start 3° Drop
6,900.0	1.90	92.68	6,890.7	-16.0	341.6	342.0	3.00	-3.00	
6,963.4	0.00	0.00	6,954.0	-16.0	342.7	343.1	3.00	-3.00	EOD @ 0° INC - TOP of GAS
7,000.0	0.00	0.00	6,990.6	-16.0	342.7	343.1	0.00	0.00	
7,100.0	0.00	0.00	7,090.6	-16.0	342.7	343.1	0.00	0.00	
7,200.0	0.00	0.00	7,190.6	-16.0	342.7	343.1	0.00	0.00	
7,300.0	0.00	0.00	7,290.6	-16.0	342.7	343.1	0.00	0.00	
7,400.0	0.00	0.00	7,390.6	-16.0	342.7	343.1	0.00	0.00	
7,500.0	0.00	0.00	7,490.6	-16.0	342.7	343.1	0.00	0.00	
7,600.0	0.00	0.00	7,590.6	-16.0	342.7	343.1	0.00	0.00	
7,700.0	0.00	0.00	7,690.6	-16.0	342.7	343.1	0.00	0.00	
7,800.0	0.00	0.00	7,790.6	-16.0	342.7	343.1	0.00	0.00	
7,900.0	0.00	0.00	7,890.6	-16.0	342.7	343.1	0.00	0.00	
8,000.0	0.00	0.00	7,990.6	-16.0	342.7	343.1	0.00	0.00	
8,100.0	0.00	0.00	8,090.6	-16.0	342.7	343.1	0.00	0.00	
8,200.0	0.00	0.00	8,190.6	-16.0	342.7	343.1	0.00	0.00	
8,300.0	0.00	0.00	8,290.6	-16.0	342.7	343.1	0.00	0.00	
8,400.0	0.00	0.00	8,390.6	-16.0	342.7	343.1	0.00	0.00	
8,500.0	0.00	0.00	8,490.6	-16.0	342.7	343.1	0.00	0.00	
8,600.0	0.00	0.00	8,590.6	-16.0	342.7	343.1	0.00	0.00	
8,630.4	0.00	0.00	8,621.0	-16.0	342.7	343.1	0.00	0.00	ROLLINS
8,700.0	0.00	0.00	8,690.6	-16.0	342.7	343.1	0.00	0.00	
8,780.4	0.00	0.00	8,771.0	-16.0	342.7	343.1	0.00	0.00	TD @ 8,780.4' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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 22C-1 BHL	0.00	0.00	8,771.0	-16.0	342.7	609,359.66	1,246,013.15	39.476064	-108.171372
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 22C-1 TGT	0.00	0.00	6,954.0	-16.0	342.7	609,359.66	1,246,013.15	39.476064	-108.171372
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,758.7	5,751.0	OHIO CREEK				
6,072.1	6,064.0	WILLIAMS FORK				
6,963.4	6,954.0	TOP of GAS				
8,630.4	8,621.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
600.0	600.0	0.0	0.0	KOP @ 600'	
704.7	704.7	-0.1	2.9	EOB @ 3.14° INC	
6,858.6	6,849.3	-15.9	339.8	Start 3° Drop	
6,963.4	6,954.0	-16.0	342.7	EOD @ 0° INC	
8,780.4	8,771.0	-16.0	342.7	TD @ 8,780.4' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 22C-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 22C-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 22C-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	8,780.2	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
S1-T7S-R97W (Mesa E1 797)						
PUCKETT 11B-1 - DD - Plan #1	418.9	419.3	30.4	28.8	18.395	CC, ES
PUCKETT 11B-1 - DD - Plan #1	500.0	499.5	32.3	30.3	15.795	SF
PUCKETT 11C-1 - DD - Plan #1	562.7	563.3	37.8	35.5	16.461	CC, ES
PUCKETT 11C-1 - DD - Plan #1	700.0	697.8	46.2	43.2	15.337	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	56.4	55.8	89.663	CC, ES
PUCKETT 13B-1 - DD - Plan #1	600.0	583.8	95.7	93.2	37.682	SF
PUCKETT 21A-1 - HZ - Plan #1	406.2	406.3	18.5	16.9	11.846	CC, ES
PUCKETT 21A-1 - HZ - Plan #1	500.0	499.7	19.9	17.9	9.899	SF
PUCKETT 21C-1 - DD - Plan #1	401.9	401.9	12.8	11.3	8.329	CC, ES
PUCKETT 21C-1 - DD - Plan #1	500.0	499.7	13.8	11.8	6.950	SF
PUCKETT 21D-1 - DD - Plan #1	442.2	442.2	10.1	8.4	5.887	CC
PUCKETT 21D-1 - DD - Plan #1	500.0	499.9	10.3	8.4	5.227	ES, SF
PUCKETT 22A-36 - DD - Plan #1	441.1	441.3	24.8	23.1	14.342	CC, ES
PUCKETT 22A-36 - DD - Plan #1	600.0	599.5	29.3	26.8	11.755	SF
PUCKETT 22D-1 - DD - Plan #1	581.5	581.5	16.2	13.8	6.926	CC
PUCKETT 22D-1 - DD - Plan #1	600.0	600.0	16.2	13.8	6.705	ES
PUCKETT 22D-1 - DD - Plan #1	700.0	699.7	18.2	15.3	6.414	SF
PUCKETT 23A-1 - DD - Plan #1	500.0	500.0	39.5	37.6	19.986	CC, ES
PUCKETT 23A-1 - DD - Plan #1	700.0	698.4	44.0	41.2	15.565	SF
PUCKETT 23B-1 - DD - Plan #1	400.0	400.0	47.7	46.2	31.196	CC, ES
PUCKETT 23B-1 - DD - Plan #1	700.0	695.5	59.6	56.8	20.947	SF
PUCKETT 23C-1 - DD - Plan #1	300.0	300.0	48.6	47.5	45.053	CC, ES
PUCKETT 23C-1 - DD - Plan #1	600.0	592.2	69.8	67.4	29.037	SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	19.3	18.7	30.696	CC, ES
PUCKETT 31B-1 - DD - Plan #1	400.0	398.2	26.6	25.0	17.275	SF
PUCKETT 31C-1 - DD - Plan #1	239.4	239.4	13.3	12.5	16.462	CC
PUCKETT 31C-1 - DD - Plan #1	300.0	299.9	13.4	12.3	12.453	ES
PUCKETT 31C-1 - DD - Plan #1	400.0	399.5	15.5	14.0	10.127	SF
PUCKETT 32A-1 - DD - Plan #1	200.0	200.0	16.2	15.6	25.811	CC, ES
PUCKETT 32A-1 - DD - Plan #1	400.0	398.5	22.3	20.8	14.636	SF
PUCKETT 32C-1 - DD - Plan #1	300.0	300.0	8.3	7.2	7.678	CC, ES
PUCKETT 32C-1 - DD - Plan #1	400.0	399.7	9.7	8.2	6.405	SF
PUCKETT 33A-1 - DD - Plan #1	400.7	400.7	7.8	6.3	5.144	CC, ES, SF
PUCKETT 33C-1 - DD - Plan #1	243.9	243.9	23.3	22.5	28.167	CC
PUCKETT 33C-1 - DD - Plan #1	300.0	300.0	23.3	22.3	21.780	ES
PUCKETT 33C-1 - DD - Plan #1	500.0	498.4	29.0	27.0	14.588	SF
PUCKETT 34A-1 - DD - Plan #1	400.0	400.0	31.6	30.0	20.655	CC, ES
PUCKETT 34A-1 - DD - Plan #1	600.0	598.5	35.4	33.0	14.765	SF
PUCKETT SWD E1-797 - VH - Plan #1	600.0	600.0	55.6	53.2	22.925	CC, ES
PUCKETT SWD E1-797 - VH - Plan #1	3,700.0	3,695.4	198.5	182.0	12.079	SF
S2-T7S-R97W (Puckett Pad H2)						
PUCKETT 12B-1 - DD - Plan #1						Out of range
PUCKETT 12C-1 - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-132.46	-22.2	-24.3	32.9					
100.0	100.0	100.0	100.0	0.1	0.1	-132.46	-22.2	-24.3	32.9	32.7	0.18	183.018		
200.0	200.0	200.0	200.0	0.3	0.3	-132.46	-22.2	-24.3	32.9	32.3	0.63	52.291		
300.0	300.0	300.6	300.5	0.5	0.5	-128.08	-19.7	-25.2	32.0	30.9	1.09	29.484		
400.0	400.0	400.6	400.2	0.8	0.8	-113.86	-12.3	-27.9	30.5	28.9	1.56	19.512		
418.9	418.9	419.3	418.9	0.8	0.8	-109.99	-10.4	-28.6	30.4	28.8	1.65	18.395 CC, ES		
500.0	500.0	499.5	498.3	1.0	1.1	-90.34	-0.2	-32.3	32.3	30.3	2.05	15.795 SF		
600.0	600.0	596.8	594.0	1.2	1.4	-66.85	16.4	-38.3	42.1	39.5	2.58	16.345		
700.0	700.0	691.8	686.4	1.4	1.8	-144.81	37.0	-45.8	62.5	59.3	3.14	19.914		
800.0	799.8	784.6	775.5	1.6	2.3	-137.59	61.1	-54.6	91.1	87.5	3.64	25.016		
900.0	899.7	879.4	866.2	1.9	2.8	-133.45	87.3	-64.1	122.0	117.9	4.13	29.517		
1,000.0	999.5	974.2	956.8	2.1	3.3	-130.98	113.4	-73.6	153.2	148.6	4.63	33.119		
1,100.0	1,099.4	1,069.1	1,047.5	2.3	3.9	-129.35	139.5	-83.1	184.6	179.4	5.13	35.994		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-135.91	-29.1	-28.2	40.6					
100.0	100.0	100.0	100.0	0.1	0.1	-135.91	-29.1	-28.2	40.6	40.4	0.18	225.622		
200.0	200.0	200.0	200.0	0.3	0.3	-135.91	-29.1	-28.2	40.6	39.9	0.63	64.464		
300.0	300.0	300.0	300.0	0.5	0.5	-135.91	-29.1	-28.2	40.6	39.5	1.08	37.604		
400.0	400.0	400.5	400.5	0.8	0.8	-133.92	-27.8	-28.8	40.1	38.5	1.53	26.164		
500.0	500.0	500.9	500.6	1.0	1.0	-124.59	-21.8	-31.6	38.4	36.4	1.99	19.231		
562.7	562.7	563.3	562.7	1.1	1.2	-114.44	-15.6	-34.4	37.8	35.5	2.29	16.461	CC, ES	
600.0	600.0	600.2	599.3	1.2	1.3	-106.97	-11.1	-36.4	38.1	35.6	2.47	15.416		
700.0	700.0	697.8	695.5	1.4	1.6	-177.66	3.9	-43.2	46.2	43.2	3.02	15.337	SF	
800.0	799.8	793.1	788.4	1.6	1.9	-161.31	22.8	-51.8	65.3	61.7	3.53	18.490		
900.0	899.7	889.4	881.9	1.9	2.4	-151.62	43.9	-61.4	89.0	85.0	4.02	22.123		
1,000.0	999.5	985.7	975.4	2.1	2.8	-146.06	65.0	-71.0	114.1	109.6	4.51	25.328		
1,100.0	1,099.4	1,082.1	1,068.9	2.3	3.3	-142.52	86.1	-80.6	139.9	134.9	4.99	28.018		
1,200.0	1,199.2	1,178.4	1,162.4	2.5	3.7	-140.08	107.2	-90.2	166.0	160.6	5.49	30.263		
1,300.0	1,299.1	1,274.7	1,255.9	2.8	4.2	-138.30	128.2	-99.7	192.4	186.4	5.98	32.153		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-ISCSWA MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-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	313.821	
200.0	200.0	200.0	200.0	0.3	0.3	-140.18	-43.3	-36.1	56.4	55.8	0.63	89.663 CC, ES	
300.0	300.0	297.2	297.1	0.5	0.5	-140.89	-45.6	-37.1	58.9	57.8	1.05	55.929	
400.0	400.0	393.8	393.5	0.8	0.7	-142.70	-52.4	-39.9	66.2	64.7	1.49	44.348	
500.0	500.0	489.5	488.4	1.0	1.0	-144.96	-63.6	-44.6	78.5	76.5	1.98	39.559	
600.0	600.0	583.8	581.2	1.2	1.3	-147.12	-78.8	-50.9	95.7	93.2	2.54	37.682 SF	
700.0	700.0	676.7	671.8	1.4	1.7	118.83	-97.9	-58.9	118.9	115.9	2.99	39.765	
800.0	799.8	773.2	765.4	1.6	2.2	119.18	-119.3	-67.8	145.2	141.7	3.47	41.882	
900.0	899.7	869.7	859.1	1.9	2.6	119.45	-140.6	-76.8	171.5	167.5	3.95	43.425	
1,000.0	999.5	966.1	952.8	2.1	3.1	119.65	-162.0	-85.7	197.8	193.3	4.44	44.501	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	-119.08	-9.1	-16.4	18.7					
100.0	100.0	100.0	100.0	0.1	0.1	-119.08	-9.1	-16.4	18.7	18.6	0.18	104.189		
200.0	200.0	200.0	200.0	0.3	0.3	-119.08	-9.1	-16.4	18.7	18.1	0.63	29.768		
300.0	300.0	300.0	300.0	0.5	0.5	-119.08	-9.1	-16.4	18.7	17.7	1.08	17.365		
400.0	400.0	400.1	400.0	0.8	0.8	-111.04	-6.6	-17.3	18.5	17.0	1.53	12.075		
406.2	406.2	406.3	406.2	0.8	0.8	-110.00	-6.3	-17.4	18.5	16.9	1.56	11.846 CC, ES		
500.0	500.0	499.7	499.4	1.0	1.0	-88.01	0.7	-19.9	19.9	17.9	2.01	9.899 SF		
600.0	600.0	599.3	598.3	1.2	1.3	-59.46	12.5	-21.2	24.7	22.2	2.47	9.989		
700.0	700.0	697.7	695.3	1.4	1.6	-130.40	28.4	-19.7	36.5	33.5	2.98	12.232		
800.0	799.8	794.6	790.1	1.6	1.9	-118.06	48.0	-15.5	54.7	51.2	3.47	15.761		
900.0	899.7	889.6	882.0	1.9	2.3	-109.13	71.2	-8.6	77.2	73.2	3.98	19.403		
1,000.0	999.5	982.6	970.7	2.1	2.8	-102.43	97.4	0.5	104.1	99.6	4.51	23.088		
1,100.0	1,099.4	1,077.8	1,061.0	2.3	3.4	-97.79	125.8	11.0	133.3	128.3	5.04	26.465		
1,200.0	1,199.2	1,173.0	1,151.2	2.5	3.9	-94.82	154.2	21.5	163.1	157.5	5.57	29.299		
1,300.0	1,299.1	1,268.2	1,241.4	2.8	4.5	-92.76	182.6	32.0	193.1	187.0	6.10	31.658		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	-98.16	-1.8	-12.7	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	-98.16	-1.8	-12.7	12.8	12.7	0.18	71.368		
200.0	200.0	200.0	200.0	0.3	0.3	-98.16	-1.8	-12.7	12.8	12.2	0.63	20.391		
300.0	300.0	300.0	300.0	0.5	0.5	-98.16	-1.8	-12.7	12.8	11.8	1.08	11.895		
400.0	400.0	400.0	400.0	0.8	0.8	-95.23	-1.2	-12.8	12.8	11.3	1.53	8.377		
401.9	401.9	401.9	401.9	0.8	0.8	-95.01	-1.1	-12.8	12.8	11.3	1.54	8.329	CC, ES	
500.0	500.0	499.7	499.6	1.0	1.0	-73.06	4.0	-13.2	13.8	11.8	1.99	6.950	SF	
600.0	600.0	599.2	598.5	1.2	1.2	-43.30	14.0	-13.2	19.3	16.9	2.45	7.877		
700.0	700.0	697.9	696.2	1.4	1.5	-116.52	27.7	-9.9	30.7	27.7	2.95	10.414		
800.0	799.8	795.4	792.0	1.6	1.8	-106.05	44.6	-3.1	47.0	43.6	3.43	13.721		
900.0	899.7	892.8	886.9	1.9	2.2	-98.41	64.2	6.4	66.4	62.5	3.93	16.907		
1,000.0	999.5	990.6	982.2	2.1	2.6	-94.12	83.9	15.9	86.6	82.2	4.43	19.552		
1,100.0	1,099.4	1,088.4	1,077.5	2.3	3.0	-91.46	103.7	25.5	107.1	102.1	4.94	21.689		
1,200.0	1,199.2	1,186.2	1,172.8	2.5	3.5	-89.65	123.4	35.1	127.7	122.2	5.45	23.432		
1,300.0	1,299.1	1,284.0	1,268.1	2.8	3.9	-88.35	143.2	44.7	148.4	142.4	5.97	24.872		
1,400.0	1,398.9	1,381.7	1,363.4	3.0	4.4	-87.36	162.9	54.3	169.2	162.7	6.49	26.078		
1,500.0	1,498.8	1,479.5	1,458.7	3.3	4.8	-86.60	182.7	63.9	190.0	183.0	7.01	27.100		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-59.77	5.1	-8.8	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	-59.77	5.1	-8.8	10.1	9.9	0.18	56.326		
200.0	200.0	200.0	200.0	0.3	0.3	-59.77	5.1	-8.8	10.1	9.5	0.63	16.093		
300.0	300.0	300.0	300.0	0.5	0.5	-59.77	5.1	-8.8	10.1	9.0	1.08	9.388		
400.0	400.0	400.0	400.0	0.8	0.8	-59.77	5.1	-8.8	10.1	8.6	1.53	6.627		
442.2	442.2	442.2	442.2	0.9	0.9	-57.13	5.5	-8.5	10.1	8.4	1.72	5.887 CC		
500.0	500.0	499.9	499.9	1.0	1.0	-45.15	7.3	-7.3	10.3	8.4	1.98	5.227 ES, SF		
600.0	600.0	599.3	599.0	1.2	1.2	-12.68	13.8	-3.1	14.2	11.8	2.43	5.836		
700.0	700.0	697.8	696.6	1.4	1.5	-89.47	24.6	3.8	24.9	22.0	2.93	8.524		
800.0	799.8	795.7	793.0	1.6	1.8	-84.72	39.1	13.2	40.4	37.0	3.42	11.835		
900.0	899.7	894.3	889.8	1.9	2.1	-82.21	54.6	23.2	56.9	53.0	3.90	14.613		
1,000.0	999.5	992.9	986.7	2.1	2.5	-80.82	70.1	33.2	73.5	69.1	4.39	16.758		
1,100.0	1,099.4	1,091.5	1,083.6	2.3	2.9	-79.95	85.6	43.2	90.1	85.2	4.89	18.448		
1,200.0	1,199.2	1,190.1	1,180.4	2.5	3.3	-79.35	101.1	53.3	106.7	101.4	5.39	19.808		
1,300.0	1,299.1	1,288.7	1,277.3	2.8	3.6	-78.91	116.5	63.3	123.4	117.5	5.90	20.923		
1,400.0	1,398.9	1,387.3	1,374.1	3.0	4.0	-78.57	132.0	73.3	140.0	133.6	6.41	21.851		
1,500.0	1,498.8	1,485.9	1,471.0	3.3	4.4	-78.31	147.5	83.3	156.6	149.7	6.92	22.635		
1,600.0	1,598.6	1,584.5	1,567.9	3.5	4.8	-78.09	163.0	93.3	173.3	165.8	7.43	23.306		
1,700.0	1,698.5	1,683.2	1,664.7	3.7	5.2	-77.92	178.5	103.3	189.9	182.0	7.95	23.887		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-128.25	-16.0	-20.3	25.9				
100.0	100.0	100.0	100.0	0.1	0.1	-128.25	-16.0	-20.3	25.9	25.7	0.18	143.928	
200.0	200.0	200.0	200.0	0.3	0.3	-128.25	-16.0	-20.3	25.9	25.3	0.63	41.122	
300.0	300.0	300.1	300.1	0.5	0.5	-127.90	-15.9	-20.4	25.8	24.8	1.08	23.939	
400.0	400.0	400.3	400.2	0.8	0.8	-119.19	-12.2	-21.9	25.0	23.5	1.54	16.302	
441.1	441.1	441.3	441.1	0.9	0.9	-112.01	-9.3	-23.0	24.8	23.1	1.73	14.342	CC, ES
500.0	500.0	500.1	499.5	1.0	1.0	-98.45	-3.7	-25.2	25.4	23.4	2.02	12.600	
600.0	600.0	599.5	598.1	1.2	1.3	-71.03	9.5	-27.6	29.3	26.8	2.49	11.755	SF
700.0	700.0	697.4	694.4	1.4	1.6	-140.82	27.2	-28.2	41.5	38.5	3.03	13.726	
800.0	799.8	793.5	787.9	1.6	2.0	-127.51	49.0	-26.9	61.7	58.2	3.52	17.514	
900.0	899.7	887.4	878.2	1.9	2.5	-118.51	74.5	-24.0	86.7	82.6	4.03	21.486	
1,000.0	999.5	978.7	964.8	2.1	3.0	-112.07	103.2	-19.5	116.3	111.7	4.56	25.499	
1,100.0	1,099.4	1,067.2	1,047.3	2.3	3.5	-107.25	134.6	-13.7	150.3	145.2	5.09	29.543	
1,200.0	1,199.2	1,159.1	1,132.0	2.5	4.2	-103.60	169.4	-6.7	187.2	181.5	5.63	33.227	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	-150.91	-14.2	-7.9	16.3					
100.0	100.0	100.0	100.0	0.1	0.1	-150.91	-14.2	-7.9	16.3	16.1	0.18	90.405		
200.0	200.0	200.0	200.0	0.3	0.3	-150.91	-14.2	-7.9	16.3	15.6	0.63	25.830		
300.0	300.0	300.0	300.0	0.5	0.5	-150.91	-14.2	-7.9	16.3	15.2	1.08	15.067		
400.0	400.0	400.0	400.0	0.8	0.8	-150.91	-14.2	-7.9	16.3	14.7	1.53	10.636		
500.0	500.0	500.0	500.0	1.0	1.0	-150.91	-14.2	-7.9	16.3	14.3	1.98	8.219		
581.5	581.5	581.5	581.5	1.2	1.2	-157.05	-14.9	-6.3	16.2	13.8	2.33	6.926 CC		
600.0	600.0	600.0	600.0	1.2	1.2	-160.16	-15.2	-5.5	16.2	13.8	2.41	6.705 ES		
700.0	700.0	699.7	699.3	1.4	1.4	90.11	-18.3	1.7	18.2	15.3	2.83	6.414 SF		
800.0	799.8	799.4	798.3	1.6	1.7	76.53	-22.7	12.3	22.8	19.5	3.28	6.950		
900.0	899.7	899.1	897.4	1.9	1.9	67.63	-27.3	23.0	28.4	24.6	3.74	7.589		
1,000.0	999.5	998.9	996.5	2.1	2.2	61.73	-31.8	33.7	34.4	30.2	4.20	8.191		
1,100.0	1,099.4	1,098.7	1,095.6	2.3	2.5	57.62	-36.4	44.4	40.6	36.0	4.66	8.725		
1,200.0	1,199.2	1,198.4	1,194.7	2.5	2.8	54.61	-40.9	55.2	47.1	41.9	5.12	9.188		
1,300.0	1,299.1	1,298.2	1,293.8	2.8	3.1	52.33	-45.4	65.9	53.6	48.0	5.59	9.589		
1,400.0	1,398.9	1,398.0	1,392.8	3.0	3.4	50.55	-50.0	76.6	60.2	54.1	6.05	9.936		
1,500.0	1,498.8	1,497.7	1,491.9	3.3	3.7	49.12	-54.5	87.3	66.8	60.3	6.52	10.239		
1,600.0	1,598.6	1,597.5	1,591.0	3.5	4.0	47.95	-59.1	98.0	73.5	66.5	6.99	10.504		
1,700.0	1,698.5	1,697.3	1,690.1	3.7	4.3	46.97	-63.6	108.8	80.1	72.7	7.46	10.737		
1,800.0	1,798.3	1,797.0	1,789.2	4.0	4.6	46.15	-68.1	119.5	86.8	78.9	7.94	10.945		
1,900.0	1,898.2	1,896.8	1,888.3	4.2	4.9	45.44	-72.7	130.2	93.6	85.2	8.41	11.130		
2,000.0	1,998.0	1,996.6	1,987.4	4.5	5.2	44.83	-77.2	140.9	100.3	91.4	8.88	11.296		
2,100.0	2,097.8	2,096.3	2,086.4	4.7	5.5	44.29	-81.8	151.6	107.1	97.7	9.35	11.446		
2,200.0	2,197.7	2,196.1	2,185.5	4.9	5.8	43.82	-86.3	162.4	113.8	104.0	9.83	11.581		
2,300.0	2,297.5	2,295.9	2,284.6	5.2	6.1	43.40	-90.8	173.1	120.6	110.3	10.30	11.705		
2,400.0	2,397.4	2,395.6	2,383.7	5.4	6.5	43.03	-95.4	183.8	127.3	116.6	10.77	11.818		
2,500.0	2,497.2	2,495.4	2,482.8	5.7	6.8	42.69	-99.9	194.5	134.1	122.9	11.25	11.922		
2,600.0	2,597.1	2,595.2	2,581.9	5.9	7.1	42.39	-104.5	205.2	140.9	129.2	11.72	12.017		
2,700.0	2,696.9	2,694.9	2,681.0	6.2	7.4	42.11	-109.0	216.0	147.7	135.5	12.20	12.105		
2,800.0	2,796.8	2,794.7	2,780.0	6.4	7.7	41.86	-113.5	226.7	154.4	141.8	12.67	12.187		
2,900.0	2,896.6	2,894.5	2,879.1	6.7	8.0	41.63	-118.1	237.4	161.2	148.1	13.15	12.263		
3,000.0	2,996.5	2,994.2	2,978.2	6.9	8.3	41.42	-122.6	248.1	168.0	154.4	13.62	12.334		
3,100.0	3,096.3	3,094.0	3,077.3	7.1	8.6	41.22	-127.1	258.8	174.8	160.7	14.10	12.401		
3,200.0	3,196.2	3,193.8	3,176.4	7.4	8.9	41.04	-131.7	269.6	181.6	167.0	14.57	12.463		
3,300.0	3,296.0	3,293.5	3,275.5	7.6	9.3	40.87	-136.2	280.3	188.4	173.3	15.05	12.521		
3,400.0	3,395.9	3,393.3	3,374.6	7.9	9.6	40.71	-140.8	291.0	195.2	179.7	15.52	12.576		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-150.01	-34.2	-19.8	39.5					
100.0	100.0	100.0	100.0	0.1	0.1	-150.01	-34.2	-19.8	39.5	39.4	0.18	219.844		
200.0	200.0	200.0	200.0	0.3	0.3	-150.01	-34.2	-19.8	39.5	38.9	0.63	62.813		
300.0	300.0	300.0	300.0	0.5	0.5	-150.01	-34.2	-19.8	39.5	38.5	1.08	36.641		
400.0	400.0	400.0	400.0	0.8	0.8	-150.01	-34.2	-19.8	39.5	38.0	1.53	25.864		
500.0	500.0	500.0	500.0	1.0	1.0	-150.01	-34.2	-19.8	39.5	37.6	1.98	19.986 CC, ES		
600.0	600.0	599.4	599.4	1.2	1.2	-153.58	-36.0	-17.9	40.3	37.8	2.41	16.717		
700.0	700.0	698.4	698.1	1.4	1.4	107.15	-41.4	-12.4	44.0	41.2	2.83	15.565 SF		
800.0	799.8	796.8	795.6	1.6	1.6	99.90	-50.3	-3.3	51.4	48.1	3.28	15.696		
900.0	899.7	894.8	892.1	1.9	1.9	91.11	-62.4	9.0	62.4	58.6	3.76	16.574		
1,000.0	999.5	993.7	989.3	2.1	2.3	84.48	-75.2	22.2	75.1	70.9	4.26	17.637		
1,100.0	1,099.4	1,092.6	1,086.4	2.3	2.6	79.81	-88.1	35.3	88.6	83.8	4.76	18.624		
1,200.0	1,199.2	1,191.5	1,183.6	2.5	3.0	76.37	-100.9	48.4	102.4	97.2	5.25	19.502		
1,300.0	1,299.1	1,290.3	1,280.7	2.8	3.4	73.76	-113.8	61.6	116.5	110.8	5.75	20.273		
1,400.0	1,398.9	1,389.2	1,377.9	3.0	3.8	71.72	-126.6	74.7	130.9	124.6	6.25	20.948		
1,500.0	1,498.8	1,488.1	1,475.0	3.3	4.2	70.08	-139.4	87.8	145.3	138.6	6.75	21.540		
1,600.0	1,598.6	1,586.9	1,572.2	3.5	4.6	68.74	-152.3	100.9	159.9	152.6	7.25	22.061		
1,700.0	1,698.5	1,685.8	1,669.3	3.7	5.0	67.62	-165.1	114.1	174.5	166.7	7.75	22.521		
1,800.0	1,798.3	1,784.7	1,766.5	4.0	5.4	66.67	-177.9	127.2	189.2	180.9	8.25	22.931		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-ISOWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-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		
400.0	400.0	400.0	400.0	0.8	0.8	-150.57	-41.5	-23.4	47.7	46.2	1.53	31.196	CC, ES	
500.0	500.0	499.1	499.1	1.0	1.0	-153.44	-43.4	-21.7	48.6	46.6	1.96	24.803		
600.0	600.0	597.7	597.4	1.2	1.2	-161.33	-49.1	-16.6	51.9	49.5	2.40	21.680		
700.0	700.0	695.5	694.3	1.4	1.4	97.52	-58.5	-8.2	59.6	56.8	2.85	20.947	SF	
800.0	799.8	792.2	789.4	1.6	1.7	90.66	-71.4	3.4	71.9	68.6	3.33	21.576		
900.0	899.7	887.9	882.6	1.9	2.1	83.86	-87.6	17.9	88.7	84.9	3.85	23.057		
1,000.0	999.5	985.6	977.4	2.1	2.6	78.61	-105.4	33.9	107.9	103.5	4.36	24.729		
1,100.0	1,099.4	1,083.4	1,072.2	2.3	3.0	74.96	-123.2	49.8	127.6	122.7	4.87	26.196		
1,200.0	1,199.2	1,181.1	1,167.0	2.5	3.5	72.29	-141.0	65.8	147.7	142.3	5.38	27.445		
1,300.0	1,299.1	1,278.9	1,261.8	2.8	4.0	70.26	-158.8	81.8	168.0	162.1	5.89	28.512		
1,400.0	1,398.9	1,376.7	1,356.5	3.0	4.5	68.66	-176.6	97.7	188.5	182.1	6.41	29.424		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	-138.54	-36.4	-32.2	48.6					
100.0	100.0	100.0	100.0	0.1	0.1	-138.54	-36.4	-32.2	48.6	48.4	0.18	270.316		
200.0	200.0	200.0	200.0	0.3	0.3	-138.54	-36.4	-32.2	48.6	48.0	0.63	77.233		
300.0	300.0	300.0	300.0	0.5	0.5	-138.54	-36.4	-32.2	48.6	47.5	1.08	45.053	CC, ES	
400.0	400.0	397.6	397.6	0.8	0.7	-139.57	-38.8	-33.0	51.0	49.5	1.50	33.985		
500.0	500.0	494.7	494.4	1.0	0.9	-142.13	-45.7	-35.6	58.2	56.3	1.93	30.176		
600.0	600.0	592.2	591.1	1.2	1.2	-145.78	-57.2	-38.9	69.8	67.4	2.40	29.037	SF	
700.0	700.0	689.6	687.3	1.4	1.5	117.05	-72.6	-39.5	84.8	81.9	2.88	29.469		
800.0	799.8	785.9	781.6	1.6	1.8	113.10	-91.5	-37.0	103.3	99.9	3.35	30.829		
900.0	899.7	882.9	876.1	1.9	2.3	108.91	-113.1	-32.3	123.7	119.9	3.85	32.174		
1,000.0	999.5	980.4	971.1	2.1	2.7	105.85	-134.9	-27.5	144.7	140.4	4.35	33.307		
1,100.0	1,099.4	1,078.0	1,066.0	2.3	3.1	103.57	-156.8	-22.7	166.0	161.2	4.86	34.162		
1,200.0	1,199.2	1,175.5	1,160.9	2.5	3.6	101.81	-178.6	-18.0	187.5	182.1	5.38	34.872		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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						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	-2.51	19.3	-0.8	19.3				
100.0	100.0	100.0	100.0	0.1	0.1	-2.51	19.3	-0.8	19.3	19.1	0.18	107.435	
200.0	200.0	200.0	200.0	0.3	0.3	-2.51	19.3	-0.8	19.3	18.7	0.63	30.696 CC, ES	
300.0	300.0	299.3	299.3	0.5	0.5	3.36	20.8	1.2	20.9	19.8	1.08	19.400	
400.0	400.0	398.2	397.8	0.8	0.8	16.19	25.4	7.4	26.6	25.0	1.54	17.275 SF	
500.0	500.0	495.9	494.7	1.0	1.1	27.93	33.0	17.5	37.7	35.7	2.03	18.547	
600.0	600.0	592.1	589.4	1.2	1.4	35.87	43.3	31.3	54.5	51.9	2.59	20.990	
700.0	700.0	686.8	681.6	1.4	1.8	-52.87	56.2	48.6	75.0	71.9	3.06	24.497	
800.0	799.8	779.9	771.0	1.6	2.3	-51.63	71.5	69.2	98.7	95.1	3.57	27.615	
900.0	899.7	870.5	856.8	1.9	2.8	-50.46	89.0	92.5	126.9	122.8	4.10	30.961	
1,000.0	999.5	961.7	941.8	2.1	3.4	-49.43	108.7	118.9	159.1	154.5	4.64	34.277	
1,100.0	1,099.4	1,056.1	1,029.6	2.3	4.1	-48.69	129.5	146.8	192.1	186.9	5.18	37.096	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-21.19	12.4	-4.8	13.3					
100.0	100.0	100.0	100.0	0.1	0.1	-21.19	12.4	-4.8	13.3	13.1	0.18	73.837		
200.0	200.0	200.0	200.0	0.3	0.3	-21.19	12.4	-4.8	13.3	12.6	0.63	21.096		
239.4	239.4	239.4	239.4	0.4	0.4	-21.19	12.4	-4.8	13.3	12.5	0.81	16.462 CC		
300.0	300.0	299.9	299.9	0.5	0.5	-18.45	12.7	-4.2	13.4	12.3	1.08	12.453 ES		
400.0	400.0	399.5	399.3	0.8	0.8	0.63	15.5	0.2	15.5	14.0	1.53	10.127 SF		
500.0	500.0	498.3	497.6	1.0	1.0	23.06	20.9	8.9	22.8	20.8	2.00	11.423		
600.0	600.0	595.7	593.8	1.2	1.3	36.96	28.8	21.7	36.6	34.1	2.52	14.543		
700.0	700.0	691.8	687.9	1.4	1.7	-49.90	39.2	38.4	54.6	51.5	3.02	18.068		
800.0	799.8	786.5	779.4	1.6	2.1	-47.93	51.9	58.8	75.6	72.1	3.52	21.460		
900.0	899.7	878.9	867.6	1.9	2.6	-46.27	66.5	82.4	101.4	97.3	4.04	25.074		
1,000.0	999.5	969.8	952.9	2.1	3.2	-44.90	83.1	109.0	131.6	127.0	4.58	28.751		
1,100.0	1,099.4	1,064.6	1,041.3	2.3	3.9	-43.90	101.1	138.0	163.4	158.3	5.11	31.973		
1,200.0	1,199.2	1,159.3	1,129.7	2.5	4.5	-43.23	119.1	167.0	195.3	189.6	5.64	34.614		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	29.12	14.2	7.9	16.2					
100.0	100.0	100.0	100.0	0.1	0.1	29.12	14.2	7.9	16.2	16.1	0.18	90.338		
200.0	200.0	200.0	200.0	0.3	0.3	29.12	14.2	7.9	16.2	15.6	0.63	25.811	CC, ES	
300.0	300.0	299.5	299.5	0.5	0.5	32.77	14.5	9.3	17.2	16.2	1.07	16.071		
400.0	400.0	398.5	398.3	0.8	0.8	44.62	15.8	15.6	22.3	20.8	1.52	14.636	SF	
500.0	500.0	496.6	495.7	1.0	1.0	55.82	18.2	26.8	32.6	30.6	2.01	16.255		
600.0	600.0	593.3	591.0	1.2	1.3	63.17	21.5	42.5	48.5	45.9	2.56	18.943		
700.0	700.0	688.6	684.1	1.4	1.7	-25.71	25.8	62.7	67.3	64.3	3.02	22.278		
800.0	799.8	782.6	774.7	1.6	2.2	-23.96	30.9	87.0	88.5	85.0	3.52	25.156		
900.0	899.7	876.4	864.0	1.9	2.7	-22.57	36.9	115.2	114.1	110.0	4.03	28.275		
1,000.0	999.5	972.8	955.5	2.1	3.3	-21.61	43.2	145.0	140.5	136.0	4.54	30.953		
1,100.0	1,099.4	1,069.3	1,047.0	2.3	3.9	-20.95	49.5	174.8	167.0	161.9	5.05	33.054		
1,200.0	1,199.2	1,165.7	1,138.4	2.5	4.6	-20.47	55.8	204.5	193.5	187.9	5.57	34.754		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	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		
300.0	300.0	300.0	300.0	0.5	0.5	28.50	7.3	4.0	8.3	7.2	1.08	7.678 CC, ES		
400.0	400.0	399.7	399.7	0.8	0.8	42.39	7.2	6.6	9.7	8.2	1.52	6.405 SF		
500.0	500.0	498.9	498.5	1.0	1.0	64.30	6.9	14.3	15.9	14.0	1.97	8.095		
600.0	600.0	597.0	595.8	1.2	1.2	76.68	6.4	27.0	28.0	25.6	2.46	11.379		
700.0	700.0	694.0	691.3	1.4	1.6	-10.52	5.7	44.4	43.1	40.2	2.95	14.625		
800.0	799.8	789.9	784.6	1.6	2.0	-7.71	4.9	66.4	60.5	57.1	3.42	17.672		
900.0	899.7	883.9	874.8	1.9	2.5	-5.84	3.9	92.4	82.8	78.9	3.92	21.153		
1,000.0	999.5	980.2	966.5	2.1	3.0	-4.61	2.7	121.9	108.1	103.6	4.42	24.463		
1,100.0	1,099.4	1,076.9	1,058.6	2.3	3.6	-3.84	1.6	151.5	133.3	128.4	4.91	27.148		
1,200.0	1,199.2	1,173.7	1,150.7	2.5	4.2	-3.31	0.4	181.0	158.7	153.2	5.41	29.310		
1,300.0	1,299.1	1,270.4	1,242.8	2.8	4.8	-2.93	-0.7	210.6	184.0	178.0	5.92	31.065		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-150.29	-6.9	-4.0	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	-150.29	-6.9	-4.0	8.0	7.8	0.18	44.342		
200.0	200.0	200.0	200.0	0.3	0.3	-150.29	-6.9	-4.0	8.0	7.3	0.63	12.669		
300.0	300.0	300.0	300.0	0.5	0.5	-150.29	-6.9	-4.0	8.0	6.9	1.08	7.390		
400.0	400.0	400.0	400.0	0.8	0.8	-160.93	-7.4	-2.6	7.8	6.3	1.52	5.154		
400.7	400.7	400.7	400.7	0.8	0.8	-161.12	-7.4	-2.5	7.8	6.3	1.52	5.144	CC, ES, SF	
500.0	500.0	499.6	499.4	1.0	1.0	159.27	-9.5	3.6	10.2	8.2	1.96	5.183		
600.0	600.0	598.3	597.4	1.2	1.2	132.36	-13.2	14.5	19.8	17.4	2.45	8.094		
700.0	700.0	696.0	693.7	1.4	1.5	30.96	-18.5	30.0	33.6	30.7	2.90	11.582		
800.0	799.8	792.6	787.9	1.6	1.9	27.83	-25.3	49.9	50.2	46.8	3.37	14.872		
900.0	899.7	887.2	879.1	1.9	2.4	25.58	-33.5	73.8	71.6	67.8	3.86	18.560		
1,000.0	999.5	980.7	967.9	2.1	2.9	23.96	-43.0	101.5	97.8	93.5	4.36	22.434		
1,100.0	1,099.4	1,075.4	1,057.1	2.3	3.5	22.87	-53.3	131.7	126.5	121.6	4.87	25.992		
1,200.0	1,199.2	1,171.2	1,147.3	2.5	4.2	22.18	-63.7	162.2	155.1	149.7	5.37	28.900		
1,300.0	1,299.1	1,267.0	1,237.5	2.8	4.8	21.70	-74.2	192.7	183.8	177.9	5.87	31.279		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	-149.39	-20.0	-11.9	23.3					
100.0	100.0	100.0	100.0	0.1	0.1	-149.39	-20.0	-11.9	23.3	23.1	0.18	129.480		
200.0	200.0	200.0	200.0	0.3	0.3	-149.39	-20.0	-11.9	23.3	22.7	0.63	36.994		
243.9	243.9	243.9	243.9	0.4	0.4	-149.39	-20.0	-11.9	23.3	22.5	0.83	28.167 CC		
300.0	300.0	300.0	300.0	0.5	0.5	-150.99	-20.4	-11.3	23.3	22.3	1.07	21.780 ES		
400.0	400.0	399.6	399.5	0.8	0.7	-163.34	-23.3	-7.0	24.3	22.8	1.51	16.052		
500.0	500.0	498.4	497.7	1.0	1.0	176.76	-28.9	1.6	29.0	27.0	1.99	14.588 SF		
600.0	600.0	596.0	594.1	1.2	1.3	159.00	-37.2	14.3	40.3	37.7	2.53	15.946		
700.0	700.0	692.2	688.2	1.4	1.7	56.39	-48.0	30.7	56.7	53.8	2.96	19.145		
800.0	799.8	786.9	779.9	1.6	2.1	51.59	-61.2	50.8	76.9	73.5	3.46	22.239		
900.0	899.7	879.5	868.1	1.9	2.7	48.00	-76.4	74.1	102.0	98.0	3.97	25.717		
1,000.0	999.5	969.5	952.6	2.1	3.3	45.31	-93.5	100.1	131.7	127.3	4.48	29.406		
1,100.0	1,099.4	1,062.1	1,038.3	2.3	4.0	43.28	-112.7	129.4	164.8	159.8	5.01	32.911		
1,200.0	1,199.2	1,156.3	1,125.5	2.5	4.7	41.89	-132.3	159.2	198.2	192.7	5.52	35.890		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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	-149.95	-27.3	-15.8	31.6					
100.0	100.0	100.0	100.0	0.1	0.1	-149.95	-27.3	-15.8	31.6	31.4	0.18	175.569		
200.0	200.0	200.0	200.0	0.3	0.3	-149.95	-27.3	-15.8	31.6	30.9	0.63	50.162		
300.0	300.0	300.0	300.0	0.5	0.5	-149.95	-27.3	-15.8	31.6	30.5	1.08	29.261		
400.0	400.0	400.0	400.0	0.8	0.8	-149.95	-27.3	-15.8	31.6	30.0	1.53	20.655 CC, ES		
500.0	500.0	499.5	499.5	1.0	1.0	-154.44	-29.1	-13.9	32.3	30.3	1.96	16.460		
600.0	600.0	598.5	598.2	1.2	1.2	-166.43	-34.4	-8.3	35.4	33.0	2.40	14.765 SF		
700.0	700.0	696.7	695.5	1.4	1.4	89.25	-43.1	0.9	43.2	40.4	2.85	15.166		
800.0	799.8	793.9	791.1	1.6	1.7	81.03	-55.1	13.7	55.7	52.3	3.33	16.706		
900.0	899.7	889.5	884.1	1.9	2.1	73.68	-70.1	29.6	73.0	69.1	3.83	19.032		
1,000.0	999.5	983.0	974.0	2.1	2.6	67.85	-87.9	48.5	95.3	91.0	4.34	21.939		
1,100.0	1,099.4	1,074.1	1,060.2	2.3	3.1	63.40	-108.0	69.9	122.6	117.7	4.86	25.229		
1,200.0	1,199.2	1,162.5	1,142.4	2.5	3.8	60.04	-130.3	93.5	154.5	149.2	5.37	28.754		
1,300.0	1,299.1	1,248.7	1,221.0	2.8	4.4	57.45	-154.5	119.2	190.9	185.0	5.90	32.382		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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-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	-150.53	-48.4	-27.4	55.6					
100.0	100.0	100.0	100.0	0.1	0.1	-150.53	-48.4	-27.4	55.6	55.5	0.18	309.487		
200.0	200.0	200.0	200.0	0.3	0.3	-150.53	-48.4	-27.4	55.6	55.0	0.63	88.425		
300.0	300.0	300.0	300.0	0.5	0.5	-150.53	-48.4	-27.4	55.6	54.6	1.08	51.581		
400.0	400.0	400.0	400.0	0.8	0.8	-150.53	-48.4	-27.4	55.6	54.1	1.53	36.410		
500.0	500.0	500.0	500.0	1.0	1.0	-150.53	-48.4	-27.4	55.6	53.7	1.98	28.135		
600.0	600.0	600.0	600.0	1.2	1.2	-150.53	-48.4	-27.4	55.6	53.2	2.43	22.925	CC, ES	
700.0	700.0	700.0	700.0	1.4	1.4	119.12	-48.4	-27.4	56.9	54.0	2.87	19.793		
800.0	799.8	799.8	799.8	1.6	1.7	123.70	-48.4	-27.4	59.7	56.4	3.31	18.036		
900.0	899.7	899.7	899.7	1.9	1.9	127.85	-48.4	-27.4	62.9	59.2	3.76	16.757		
1,000.0	999.5	999.5	999.5	2.1	2.1	131.59	-48.4	-27.4	66.5	62.2	4.21	15.803		
1,100.0	1,099.4	1,099.4	1,099.4	2.3	2.3	134.93	-48.4	-27.4	70.2	65.6	4.66	15.080		
1,200.0	1,199.2	1,199.2	1,199.2	2.5	2.6	137.93	-48.4	-27.4	74.2	69.1	5.11	14.524		
1,300.0	1,299.1	1,299.1	1,299.1	2.8	2.8	140.61	-48.4	-27.4	78.3	72.8	5.56	14.088		
1,400.0	1,398.9	1,398.9	1,398.9	3.0	3.0	143.02	-48.4	-27.4	82.7	76.6	6.01	13.743		
1,500.0	1,498.8	1,498.8	1,498.8	3.3	3.2	145.19	-48.4	-27.4	87.1	80.6	6.47	13.467		
1,600.0	1,598.6	1,598.6	1,598.6	3.5	3.5	147.15	-48.4	-27.4	91.7	84.7	6.92	13.243		
1,700.0	1,698.5	1,698.5	1,698.5	3.7	3.7	148.92	-48.4	-27.4	96.3	88.9	7.38	13.059		
1,800.0	1,798.3	1,798.3	1,798.3	4.0	3.9	150.52	-48.4	-27.4	101.1	93.2	7.83	12.908		
1,900.0	1,898.2	1,898.2	1,898.2	4.2	4.1	151.98	-48.4	-27.4	105.9	97.6	8.28	12.781		
2,000.0	1,998.0	1,998.0	1,998.0	4.5	4.4	153.31	-48.4	-27.4	110.7	102.0	8.74	12.676		
2,100.0	2,097.8	2,097.8	2,097.8	4.7	4.6	154.53	-48.4	-27.4	115.7	106.5	9.19	12.586		
2,200.0	2,197.7	2,197.7	2,197.7	4.9	4.8	155.65	-48.4	-27.4	120.6	111.0	9.64	12.511		
2,300.0	2,297.5	2,297.5	2,297.5	5.2	5.0	156.68	-48.4	-27.4	125.6	115.5	10.10	12.446		
2,400.0	2,397.4	2,397.4	2,397.4	5.4	5.3	157.63	-48.4	-27.4	130.7	120.1	10.55	12.390		
2,500.0	2,497.2	2,497.2	2,497.2	5.7	5.5	158.51	-48.4	-27.4	135.8	124.8	11.00	12.342		
2,600.0	2,597.1	2,597.1	2,597.1	5.9	5.7	159.33	-48.4	-27.4	140.9	129.4	11.45	12.301		
2,700.0	2,696.9	2,696.9	2,696.9	6.2	5.9	160.09	-48.4	-27.4	146.0	134.1	11.91	12.265		
2,800.0	2,796.8	2,796.8	2,796.8	6.4	6.2	160.79	-48.4	-27.4	151.2	138.8	12.36	12.234		
2,900.0	2,896.6	2,896.6	2,896.6	6.7	6.4	161.46	-48.4	-27.4	156.4	143.6	12.81	12.206		
3,000.0	2,996.5	2,996.5	2,996.5	6.9	6.6	162.07	-48.4	-27.4	161.6	148.3	13.27	12.183		
3,100.0	3,096.3	3,096.3	3,096.3	7.1	6.8	162.65	-48.4	-27.4	166.8	153.1	13.72	12.162		
3,200.0	3,196.2	3,196.2	3,196.2	7.4	7.0	163.20	-48.4	-27.4	172.1	157.9	14.17	12.143		
3,300.0	3,296.0	3,296.0	3,296.0	7.6	7.3	163.71	-48.4	-27.4	177.3	162.7	14.62	12.127		
3,400.0	3,395.9	3,395.9	3,395.9	7.9	7.5	164.19	-48.4	-27.4	182.6	167.5	15.07	12.113		
3,500.0	3,495.7	3,495.7	3,495.7	8.1	7.7	164.65	-48.4	-27.4	187.9	172.3	15.53	12.100		
3,600.0	3,595.6	3,595.6	3,595.6	8.4	7.9	165.08	-48.4	-27.4	193.2	177.2	15.98	12.089		
3,700.0	3,695.4	3,695.4	3,695.4	8.6	8.2	165.48	-48.4	-27.4	198.5	182.0	16.43	12.079	SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22C-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 22C-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 22C-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

