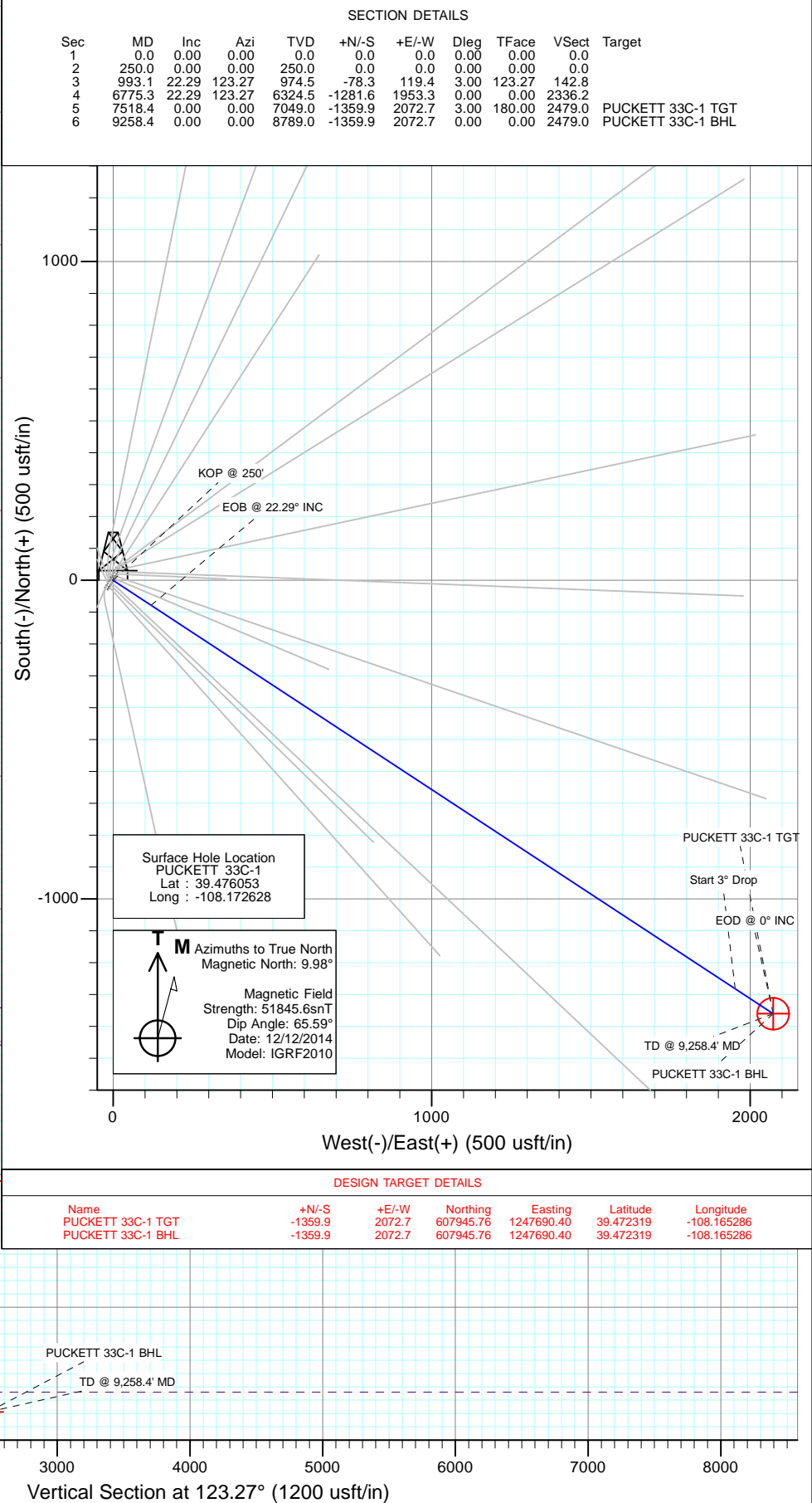
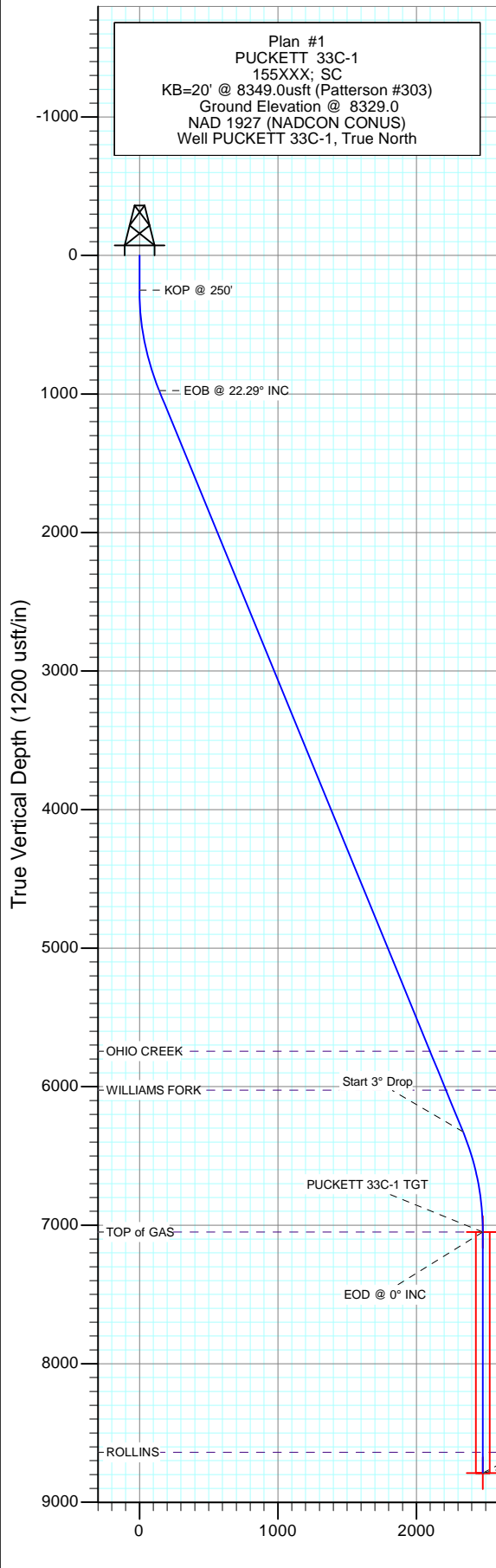
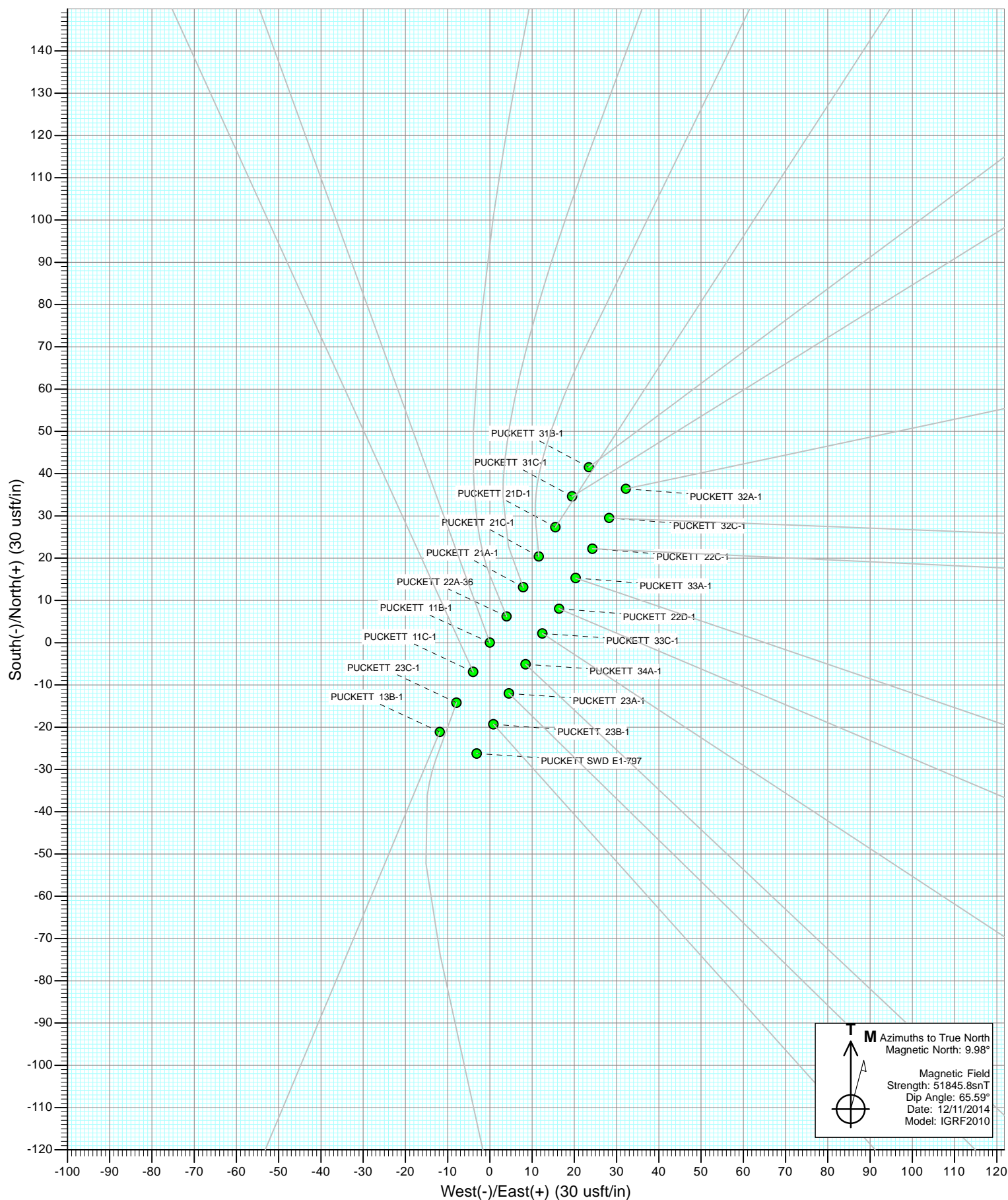
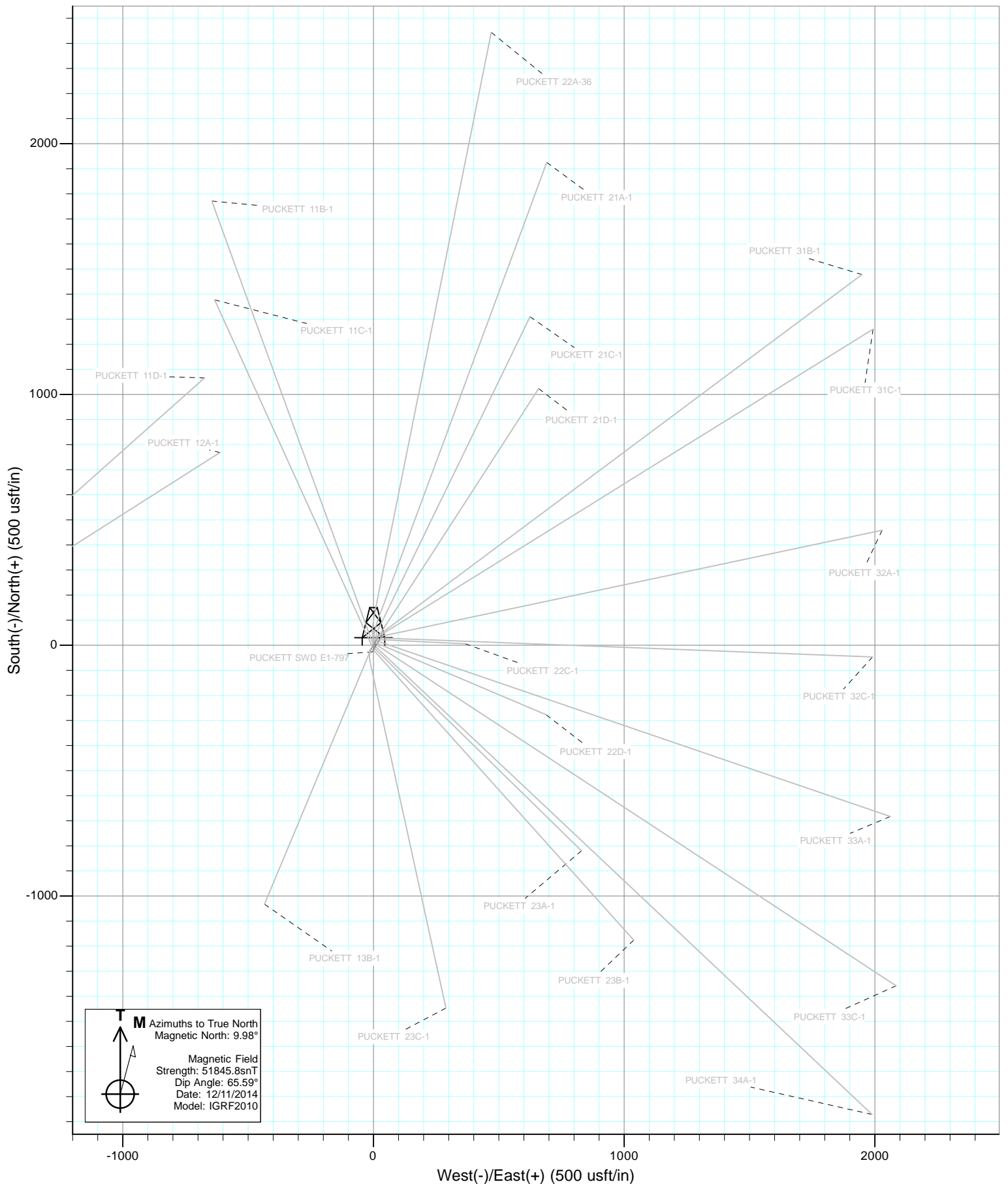




Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 33C-1
Wellbore: DD
Design: Plan #1

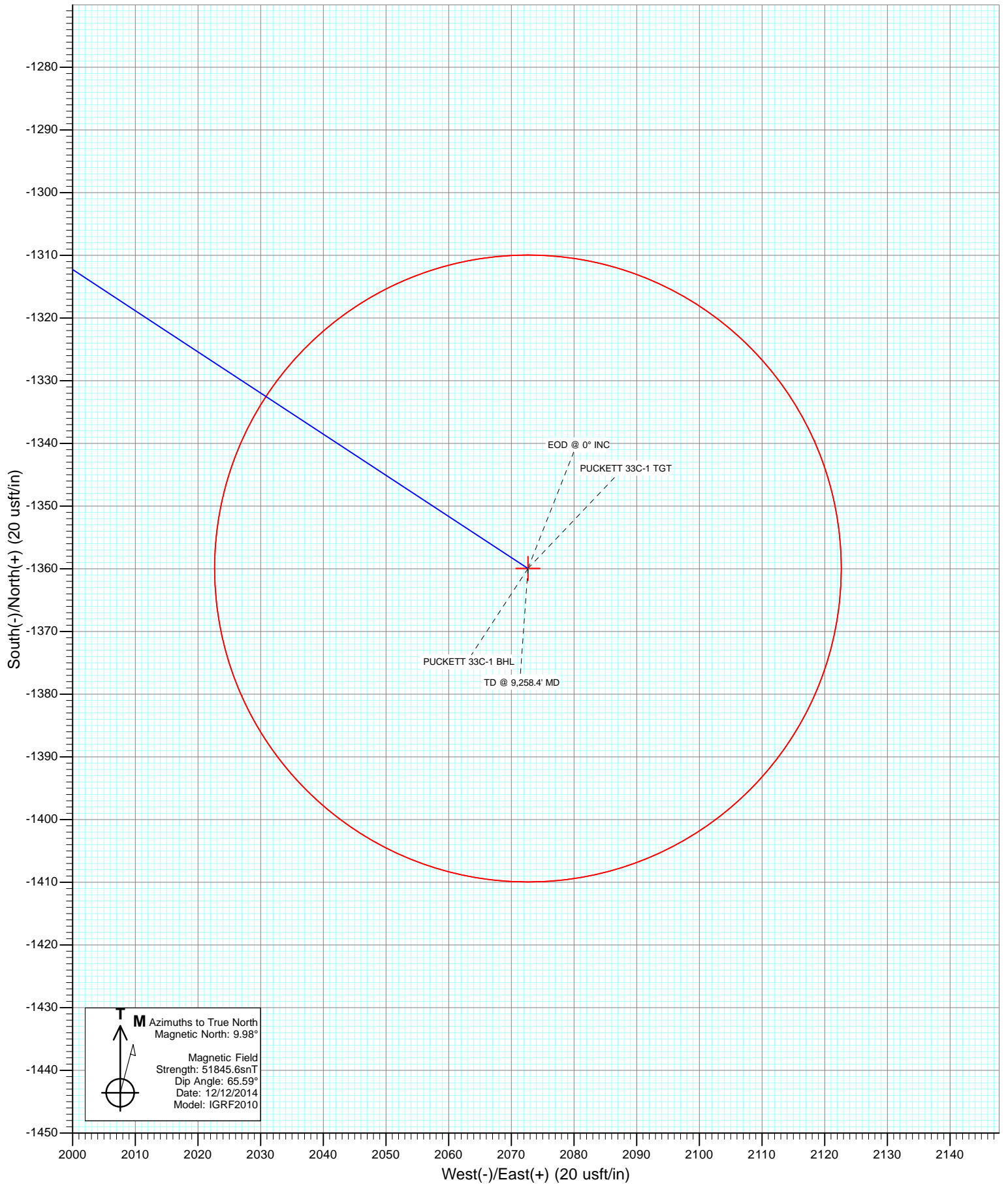








Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 33C-1
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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 33C-1					
Well Position	+N/-S	0.0 usft	Northing:	609,366.07 usft	Latitude:	39.476053
	+E/-W	0.0 usft	Easting:	1,245,658.63 usft	Longitude:	-108.172628
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	123.27

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	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
993.1	22.29	123.27	974.5	-78.3	119.4	3.00	3.00	0.00	123.27	
6,775.3	22.29	123.27	6,324.5	-1,281.6	1,953.3	0.00	0.00	0.00	0.00	
7,518.4	0.00	0.00	7,049.0	-1,359.9	2,072.7	3.00	-3.00	0.00	180.00	PUCKETT 33C-1 TG1
9,258.4	0.00	0.00	8,789.0	-1,359.9	2,072.7	0.00	0.00	0.00	0.00	PUCKETT 33C-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	KOP @ 250'
300.0	1.50	123.27	300.0	-0.4	0.5	0.7	3.00	3.00	
400.0	4.50	123.27	399.8	-3.2	4.9	5.9	3.00	3.00	
500.0	7.50	123.27	499.3	-9.0	13.7	16.3	3.00	3.00	
600.0	10.50	123.27	598.0	-17.5	26.7	32.0	3.00	3.00	
700.0	13.50	123.27	695.8	-28.9	44.1	52.8	3.00	3.00	
800.0	16.50	123.27	792.4	-43.1	65.8	78.6	3.00	3.00	
900.0	19.50	123.27	887.5	-60.1	91.6	109.5	3.00	3.00	
993.1	22.29	123.27	974.5	-78.3	119.4	142.8	3.00	3.00	EOB @ 22.29° INC
1,000.0	22.29	123.27	980.9	-79.7	121.5	145.4	0.00	0.00	
1,100.0	22.29	123.27	1,073.4	-100.6	153.3	183.3	0.00	0.00	
1,200.0	22.29	123.27	1,165.9	-121.4	185.0	221.2	0.00	0.00	
1,300.0	22.29	123.27	1,258.5	-142.2	216.7	259.2	0.00	0.00	
1,400.0	22.29	123.27	1,351.0	-163.0	248.4	297.1	0.00	0.00	
1,500.0	22.29	123.27	1,443.5	-183.8	280.1	335.0	0.00	0.00	
1,600.0	22.29	123.27	1,536.0	-204.6	311.8	373.0	0.00	0.00	
1,700.0	22.29	123.27	1,628.6	-225.4	343.6	410.9	0.00	0.00	
1,800.0	22.29	123.27	1,721.1	-246.2	375.3	448.8	0.00	0.00	
1,900.0	22.29	123.27	1,813.6	-267.0	407.0	486.8	0.00	0.00	
2,000.0	22.29	123.27	1,906.1	-287.9	438.7	524.7	0.00	0.00	
2,100.0	22.29	123.27	1,998.7	-308.7	470.4	562.7	0.00	0.00	
2,200.0	22.29	123.27	2,091.2	-329.5	502.1	600.6	0.00	0.00	
2,300.0	22.29	123.27	2,183.7	-350.3	533.9	638.5	0.00	0.00	
2,400.0	22.29	123.27	2,276.2	-371.1	565.6	676.5	0.00	0.00	
2,500.0	22.29	123.27	2,368.8	-391.9	597.3	714.4	0.00	0.00	
2,600.0	22.29	123.27	2,461.3	-412.7	629.0	752.3	0.00	0.00	
2,700.0	22.29	123.27	2,553.8	-433.5	660.7	790.3	0.00	0.00	
2,800.0	22.29	123.27	2,646.3	-454.3	692.5	828.2	0.00	0.00	
2,900.0	22.29	123.27	2,738.9	-475.1	724.2	866.1	0.00	0.00	
3,000.0	22.29	123.27	2,831.4	-496.0	755.9	904.1	0.00	0.00	
3,100.0	22.29	123.27	2,923.9	-516.8	787.6	942.0	0.00	0.00	
3,200.0	22.29	123.27	3,016.4	-537.6	819.3	979.9	0.00	0.00	
3,300.0	22.29	123.27	3,109.0	-558.4	851.0	1,017.9	0.00	0.00	
3,400.0	22.29	123.27	3,201.5	-579.2	882.8	1,055.8	0.00	0.00	
3,500.0	22.29	123.27	3,294.0	-600.0	914.5	1,093.7	0.00	0.00	
3,600.0	22.29	123.27	3,386.5	-620.8	946.2	1,131.7	0.00	0.00	
3,700.0	22.29	123.27	3,479.1	-641.6	977.9	1,169.6	0.00	0.00	
3,800.0	22.29	123.27	3,571.6	-662.4	1,009.6	1,207.5	0.00	0.00	
3,900.0	22.29	123.27	3,664.1	-683.3	1,041.3	1,245.5	0.00	0.00	
4,000.0	22.29	123.27	3,756.6	-704.1	1,073.1	1,283.4	0.00	0.00	
4,100.0	22.29	123.27	3,849.2	-724.9	1,104.8	1,321.4	0.00	0.00	
4,200.0	22.29	123.27	3,941.7	-745.7	1,136.5	1,359.3	0.00	0.00	
4,300.0	22.29	123.27	4,034.2	-766.5	1,168.2	1,397.2	0.00	0.00	
4,400.0	22.29	123.27	4,126.7	-787.3	1,199.9	1,435.2	0.00	0.00	
4,500.0	22.29	123.27	4,219.3	-808.1	1,231.6	1,473.1	0.00	0.00	
4,600.0	22.29	123.27	4,311.8	-828.9	1,263.4	1,511.0	0.00	0.00	
4,700.0	22.29	123.27	4,404.3	-849.7	1,295.1	1,549.0	0.00	0.00	
4,800.0	22.29	123.27	4,496.8	-870.5	1,326.8	1,586.9	0.00	0.00	
4,900.0	22.29	123.27	4,589.4	-891.4	1,358.5	1,624.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,000.0	22.29	123.27	4,681.9	-912.2	1,390.2	1,662.8	0.00	0.00	
5,100.0	22.29	123.27	4,774.4	-933.0	1,421.9	1,700.7	0.00	0.00	
5,200.0	22.29	123.27	4,866.9	-953.8	1,453.7	1,738.6	0.00	0.00	
5,300.0	22.29	123.27	4,959.5	-974.6	1,485.4	1,776.6	0.00	0.00	
5,400.0	22.29	123.27	5,052.0	-995.4	1,517.1	1,814.5	0.00	0.00	
5,500.0	22.29	123.27	5,144.5	-1,016.2	1,548.8	1,852.4	0.00	0.00	
5,600.0	22.29	123.27	5,237.0	-1,037.0	1,580.5	1,890.4	0.00	0.00	
5,700.0	22.29	123.27	5,329.6	-1,057.8	1,612.3	1,928.3	0.00	0.00	
5,800.0	22.29	123.27	5,422.1	-1,078.7	1,644.0	1,966.2	0.00	0.00	
5,900.0	22.29	123.27	5,514.6	-1,099.5	1,675.7	2,004.2	0.00	0.00	
6,000.0	22.29	123.27	5,607.1	-1,120.3	1,707.4	2,042.1	0.00	0.00	
6,100.0	22.29	123.27	5,699.7	-1,141.1	1,739.1	2,080.1	0.00	0.00	
6,147.9	22.29	123.27	5,744.0	-1,151.1	1,754.3	2,098.2	0.00	0.00	OHIO CREEK
6,200.0	22.29	123.27	5,792.2	-1,161.9	1,770.8	2,118.0	0.00	0.00	
6,300.0	22.29	123.27	5,884.7	-1,182.7	1,802.6	2,155.9	0.00	0.00	
6,400.0	22.29	123.27	5,977.2	-1,203.5	1,834.3	2,193.9	0.00	0.00	
6,450.5	22.29	123.27	6,024.0	-1,214.0	1,850.3	2,213.0	0.00	0.00	WILLIAMS FORK
6,500.0	22.29	123.27	6,069.8	-1,224.3	1,866.0	2,231.8	0.00	0.00	
6,600.0	22.29	123.27	6,162.3	-1,245.1	1,897.7	2,269.7	0.00	0.00	
6,700.0	22.29	123.27	6,254.8	-1,265.9	1,929.4	2,307.7	0.00	0.00	
6,775.3	22.29	123.27	6,324.5	-1,281.6	1,953.3	2,336.2	0.00	0.00	Start 3° Drop
6,800.0	21.55	123.27	6,347.4	-1,286.7	1,961.0	2,345.5	3.00	-3.00	
6,900.0	18.55	123.27	6,441.3	-1,305.5	1,989.7	2,379.7	3.00	-3.00	
7,000.0	15.55	123.27	6,536.9	-1,321.6	2,014.2	2,409.1	3.00	-3.00	
7,100.0	12.55	123.27	6,633.9	-1,334.9	2,034.5	2,433.3	3.00	-3.00	
7,200.0	9.55	123.27	6,732.1	-1,345.4	2,050.5	2,452.5	3.00	-3.00	
7,300.0	6.55	123.27	6,831.1	-1,353.1	2,062.2	2,466.5	3.00	-3.00	
7,400.0	3.55	123.27	6,930.7	-1,357.9	2,069.6	2,475.3	3.00	-3.00	
7,500.0	0.55	123.27	7,030.6	-1,359.9	2,072.6	2,478.9	3.00	-3.00	
7,518.4	0.00	0.00	7,049.0	-1,359.9	2,072.7	2,479.0	3.00	-3.00	EOD @ 0° INC - TOP of GAS
7,600.0	0.00	0.00	7,130.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
7,700.0	0.00	0.00	7,230.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
7,800.0	0.00	0.00	7,330.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
7,900.0	0.00	0.00	7,430.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,000.0	0.00	0.00	7,530.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,100.0	0.00	0.00	7,630.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,200.0	0.00	0.00	7,730.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,300.0	0.00	0.00	7,830.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,400.0	0.00	0.00	7,930.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,500.0	0.00	0.00	8,030.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,600.0	0.00	0.00	8,130.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,700.0	0.00	0.00	8,230.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,800.0	0.00	0.00	8,330.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
8,900.0	0.00	0.00	8,430.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
9,000.0	0.00	0.00	8,530.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
9,100.0	0.00	0.00	8,630.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
9,108.4	0.00	0.00	8,639.0	-1,359.9	2,072.7	2,479.0	0.00	0.00	ROLLINS
9,200.0	0.00	0.00	8,730.6	-1,359.9	2,072.7	2,479.0	0.00	0.00	
9,258.4	0.00	0.00	8,789.0	-1,359.9	2,072.7	2,479.0	0.00	0.00	TD @ 9,258.4' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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 33C-1 TGT	0.00	0.00	7,049.0	-1,359.9	2,072.7	607,945.76	1,247,690.40	39.472319	-108.165286
- plan hits target center									
- Point									
PUCKETT 33C-1 BHL	0.00	0.00	8,789.0	-1,359.9	2,072.7	607,945.76	1,247,690.40	39.472319	-108.165286
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,147.9	5,744.0	OHIO CREEK				
6,450.5	6,024.0	WILLIAMS FORK				
7,518.4	7,049.0	TOP of GAS				
9,108.4	8,639.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
250.0	250.0	0.0	0.0	KOP @ 250'	
993.1	974.5	-78.3	119.4	EOB @ 22.29° INC	
6,775.3	6,324.5	-1,281.6	1,953.3	Start 3° Drop	
7,518.4	7,049.0	-1,359.9	2,072.7	EOD @ 0° INC	
9,258.4	8,789.0	-1,359.9	2,072.7	TD @ 9,258.4' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 33C-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 33C-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 33C-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	9,258.4	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	200.0	200.0	12.6	12.0	20.038	CC
PUCKETT 11B-1 - DD - Plan #1	212.3	212.3	12.6	11.9	18.458	ES
PUCKETT 11B-1 - DD - Plan #1	300.0	299.8	13.9	12.8	12.736	SF
PUCKETT 11C-1 - DD - Plan #1	200.0	200.0	18.7	18.1	29.765	CC
PUCKETT 11C-1 - DD - Plan #1	300.0	300.0	19.0	18.0	17.719	ES
PUCKETT 11C-1 - DD - Plan #1	400.0	399.7	22.4	20.8	14.215	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	33.7	33.0	53.473	CC, ES
PUCKETT 13B-1 - DD - Plan #1	500.0	492.7	58.8	56.7	28.561	SF
PUCKETT 21A-1 - HZ - Plan #1	200.0	200.0	11.8	11.2	18.794	CC
PUCKETT 21A-1 - HZ - Plan #1	228.4	228.4	11.9	11.2	15.752	ES
PUCKETT 21A-1 - HZ - Plan #1	300.0	300.0	12.4	11.3	11.393	SF
PUCKETT 21C-1 - DD - Plan #1	200.0	200.0	18.2	17.6	28.976	CC
PUCKETT 21C-1 - DD - Plan #1	229.0	229.0	18.3	17.5	24.145	ES
PUCKETT 21C-1 - DD - Plan #1	400.0	399.3	22.8	21.3	14.427	SF
PUCKETT 21D-1 - DD - Plan #1	200.0	200.0	25.3	24.7	40.244	CC
PUCKETT 21D-1 - DD - Plan #1	300.0	300.0	25.6	24.5	23.853	ES
PUCKETT 21D-1 - DD - Plan #1	500.0	498.0	37.4	35.3	17.637	SF
PUCKETT 22A-36 - DD - Plan #1	200.0	200.0	9.4	8.7	14.892	CC, ES
PUCKETT 22A-36 - DD - Plan #1	300.0	299.9	10.1	9.0	9.275	SF
PUCKETT 22C-1 - DD - Plan #1	200.0	200.0	23.3	22.7	36.994	CC
PUCKETT 22C-1 - DD - Plan #1	300.0	300.0	23.3	22.3	21.816	ES
PUCKETT 22C-1 - DD - Plan #1	500.0	499.3	29.1	27.0	14.058	SF
PUCKETT 22D-1 - DD - Plan #1	200.0	200.0	7.0	6.4	11.194	CC
PUCKETT 22D-1 - DD - Plan #1	300.0	300.0	7.1	6.0	6.610	ES
PUCKETT 22D-1 - DD - Plan #1	400.0	399.8	9.1	7.6	5.851	SF
PUCKETT 23A-1 - DD - Plan #1	317.2	317.2	16.2	15.1	14.155	CC, ES
PUCKETT 23A-1 - DD - Plan #1	500.0	499.3	22.2	20.1	10.534	SF
PUCKETT 23B-1 - DD - Plan #1	339.8	339.8	24.3	23.1	19.562	CC, ES
PUCKETT 23B-1 - DD - Plan #1	900.0	901.4	61.0	56.1	12.470	SF
PUCKETT 23C-1 - DD - Plan #1	200.0	200.0	26.1	25.5	41.488	CC
PUCKETT 23C-1 - DD - Plan #1	300.0	300.0	26.3	25.2	24.559	ES
PUCKETT 23C-1 - DD - Plan #1	400.0	398.7	30.4	28.9	20.106	SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	40.8	40.2	64.906	CC, ES
PUCKETT 31B-1 - DD - Plan #1	600.0	588.2	82.9	80.1	30.355	SF
PUCKETT 31C-1 - DD - Plan #1	200.0	200.0	33.2	32.5	52.715	CC
PUCKETT 31C-1 - DD - Plan #1	227.8	227.8	33.2	32.5	44.163	ES
PUCKETT 31C-1 - DD - Plan #1	500.0	495.8	50.4	48.3	24.280	SF
PUCKETT 32A-1 - DD - Plan #1	200.0	200.0	39.5	38.9	62.800	CC, ES
PUCKETT 32A-1 - DD - Plan #1	1,100.0	1,072.9	175.3	167.4	22.187	SF
PUCKETT 32C-1 - DD - Plan #1	200.0	200.0	31.6	30.9	50.150	CC
PUCKETT 32C-1 - DD - Plan #1	300.0	300.0	31.6	30.5	29.565	ES
PUCKETT 32C-1 - DD - Plan #1	1,400.0	1,383.5	181.2	169.7	15.774	SF
PUCKETT 33A-1 - DD - Plan #1	200.0	200.0	15.3	14.7	24.327	CC
PUCKETT 33A-1 - DD - Plan #1	300.0	300.0	15.3	14.3	14.358	ES
PUCKETT 33A-1 - DD - Plan #1	2,400.0	2,394.6	195.5	171.0	7.962	SF
PUCKETT 34A-1 - DD - Plan #1	301.5	301.5	8.3	7.2	7.670	CC, ES
PUCKETT 34A-1 - DD - Plan #1	2,300.0	2,307.6	119.5	92.3	4.390	SF
PUCKETT SWD E1-797 - VH - Plan #1	349.7	349.7	32.3	31.0	25.096	CC
PUCKETT SWD E1-797 - VH - Plan #1	400.0	399.8	32.4	30.9	21.556	ES
PUCKETT SWD E1-797 - VH - Plan #1	600.0	598.0	43.6	41.0	16.240	SF

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

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-99.96	-2.2	-12.4	12.6					
100.0	100.0	100.0	100.0	0.1	0.1	-99.96	-2.2	-12.4	12.6	12.4	0.18	70.132		
200.0	200.0	200.0	200.0	0.3	0.3	-99.96	-2.2	-12.4	12.6	12.0	0.63	20.038 CC		
212.3	212.3	212.3	212.3	0.3	0.3	137.01	-2.1	-12.4	12.6	11.9	0.68	18.458 ES		
300.0	300.0	299.8	299.7	0.5	0.5	149.29	0.3	-13.3	13.9	12.8	1.09	12.736 SF		
400.0	399.8	398.4	398.1	0.7	0.8	173.88	7.5	-15.9	23.5	21.8	1.69	13.956		
500.0	499.3	494.6	493.4	1.0	1.1	-173.40	19.1	-20.2	44.4	42.0	2.34	18.976		
600.0	598.0	586.9	584.3	1.3	1.4	-167.91	34.5	-25.8	75.2	72.2	2.99	25.180		
700.0	695.8	674.5	669.7	1.7	1.7	-165.17	52.9	-32.5	115.1	111.5	3.63	31.697		
800.0	792.4	756.6	748.7	2.2	2.1	-163.53	73.5	-40.0	163.4	159.1	4.28	38.213		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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-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	-119.07	-9.1	-16.4	18.7					
100.0	100.0	100.0	100.0	0.1	0.1	-119.07	-9.1	-16.4	18.7	18.6	0.18	104.176		
200.0	200.0	200.0	200.0	0.3	0.3	-119.07	-9.1	-16.4	18.7	18.1	0.63	29.765 CC		
229.5	229.5	229.5	229.5	0.4	0.4	117.97	-9.1	-16.4	18.8	18.0	0.76	24.715		
300.0	300.0	300.0	300.0	0.5	0.5	119.40	-9.1	-16.4	19.0	18.0	1.07	17.719 ES		
400.0	399.8	399.7	399.7	0.7	0.8	134.90	-7.8	-17.0	22.4	20.8	1.57	14.215 SF		
500.0	499.3	497.7	497.5	1.0	1.0	158.24	-2.0	-19.6	34.0	31.8	2.22	15.301		
600.0	598.0	592.7	591.8	1.3	1.2	173.10	7.9	-24.1	57.2	54.3	2.91	19.699		
700.0	695.8	683.4	681.3	1.7	1.5	-179.10	21.4	-30.2	91.0	87.4	3.56	25.533		
800.0	792.4	768.9	764.9	2.2	1.8	-174.73	37.6	-37.6	134.1	129.9	4.20	31.887		
900.0	887.5	853.7	847.2	2.8	2.2	-172.04	56.1	-46.0	184.6	179.7	4.83	38.203		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-133.83	-23.3	-24.3	33.7					
100.0	100.0	100.0	100.0	0.1	0.1	-133.83	-23.3	-24.3	33.7	33.5	0.18	187.157		
200.0	200.0	200.0	200.0	0.3	0.3	-133.83	-23.3	-24.3	33.7	33.0	0.63	53.473 CC, ES		
300.0	300.0	298.3	298.3	0.5	0.5	102.24	-25.6	-25.3	36.2	35.1	1.05	34.331		
400.0	399.8	396.1	395.7	0.7	0.7	104.69	-32.6	-28.2	44.4	42.9	1.51	29.452		
500.0	499.3	492.7	491.5	1.0	1.0	108.70	-44.0	-32.9	58.8	56.7	2.06	28.561 SF		
600.0	598.0	587.5	584.8	1.3	1.3	112.36	-59.5	-39.4	79.4	76.7	2.71	29.258		
700.0	695.8	680.8	675.8	1.7	1.7	115.16	-78.8	-47.4	106.2	102.7	3.49	30.447		
800.0	792.4	775.7	767.9	2.2	2.2	118.10	-99.8	-56.2	136.7	132.4	4.35	31.422		
900.0	887.5	869.4	858.8	2.8	2.6	121.17	-120.5	-64.9	170.2	164.9	5.31	32.069		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-22.45	10.9	-4.5	11.8					
100.0	100.0	100.0	100.0	0.1	0.1	-22.45	10.9	-4.5	11.8	11.6	0.18	65.779		
200.0	200.0	200.0	200.0	0.3	0.3	-22.45	10.9	-4.5	11.8	11.2	0.63	18.794 CC		
228.4	228.4	228.4	228.4	0.4	0.4	-146.00	10.9	-4.5	11.9	11.2	0.76	15.752 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-147.42	10.9	-4.5	12.4	11.3	1.09	11.393 SF		
400.0	399.8	398.9	398.9	0.7	0.8	-155.01	13.3	-5.4	19.5	17.9	1.63	11.996		
500.0	499.3	496.2	495.8	1.0	1.0	-159.18	20.4	-7.9	36.6	34.3	2.27	16.143		
600.0	598.0	592.2	591.2	1.3	1.2	-158.84	31.6	-9.4	61.3	58.5	2.87	21.354		
700.0	695.8	685.9	683.7	1.7	1.5	-156.79	46.3	-8.2	92.4	88.9	3.50	26.441		
800.0	792.4	776.5	772.5	2.2	1.9	-154.51	64.1	-4.6	129.8	125.7	4.15	31.316		
900.0	887.5	863.7	857.0	2.8	2.2	-152.33	84.5	1.1	173.3	168.5	4.83	35.914		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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						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	-2.66	18.2	-0.8	18.2					
100.0	100.0	100.0	100.0	0.1	0.1	-2.66	18.2	-0.8	18.2	18.1	0.18	101.415		
200.0	200.0	200.0	200.0	0.3	0.3	-2.66	18.2	-0.8	18.2	17.6	0.63	28.976 CC		
229.0	229.0	229.0	229.0	0.4	0.4	-126.21	18.2	-0.8	18.3	17.5	0.76	24.145 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-127.55	18.2	-0.8	18.6	17.5	1.08	17.279		
400.0	399.8	399.3	399.3	0.7	0.8	-137.88	18.8	-0.9	22.8	21.3	1.58	14.427 SF		
500.0	499.3	496.8	496.7	1.0	1.0	-147.33	23.8	-1.3	36.2	34.0	2.19	16.535		
600.0	598.0	593.0	592.4	1.3	1.2	-151.37	33.3	-1.5	58.4	55.6	2.83	20.680		
700.0	695.8	687.9	686.3	1.7	1.5	-151.48	46.2	1.5	86.9	83.4	3.45	25.191		
800.0	792.4	780.4	777.3	2.2	1.8	-150.23	61.8	7.5	121.0	116.9	4.10	29.476		
900.0	887.5	871.4	866.1	2.8	2.1	-148.77	79.9	16.1	160.5	155.7	4.81	33.364		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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-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	7.04	25.1	3.1	25.3					
100.0	100.0	100.0	100.0	0.1	0.1	7.04	25.1	3.1	25.3	25.1	0.18	140.855		
200.0	200.0	200.0	200.0	0.3	0.3	7.04	25.1	3.1	25.3	24.7	0.63	40.244 CC		
229.2	229.2	229.2	229.2	0.4	0.4	-116.45	25.1	3.1	25.4	24.6	0.76	33.459		
300.0	300.0	300.0	300.0	0.5	0.5	-117.53	25.1	3.1	25.6	24.5	1.07	23.853 ES		
400.0	399.8	399.8	399.8	0.7	0.8	-126.85	25.1	3.1	28.4	26.9	1.55	18.315		
500.0	499.3	498.0	498.0	1.0	1.0	-137.09	27.2	4.5	37.4	35.3	2.12	17.637 SF		
600.0	598.0	595.0	594.7	1.3	1.2	-142.06	33.5	8.5	54.3	51.6	2.74	19.817		
700.0	695.8	690.1	688.9	1.7	1.5	-143.65	43.6	15.0	78.5	75.1	3.39	23.132		
800.0	792.4	783.3	780.7	2.2	1.7	-143.76	57.2	23.8	109.4	105.3	4.09	26.743		
900.0	887.5	876.6	872.4	2.8	2.1	-144.33	71.9	33.3	145.1	140.2	4.81	30.141		
1,000.0	980.9	968.3	962.5	3.5	2.4	-145.39	86.3	42.6	184.7	179.2	5.55	33.268		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-64.63	4.0	-8.5	9.4					
100.0	100.0	100.0	100.0	0.1	0.1	-64.63	4.0	-8.5	9.4	9.2	0.18	52.124		
200.0	200.0	200.0	200.0	0.3	0.3	-64.63	4.0	-8.5	9.4	8.7	0.63	14.892 CC, ES		
235.9	235.9	235.9	235.9	0.4	0.4	172.24	4.0	-8.5	9.5	8.7	0.79	12.048		
300.0	300.0	299.9	299.9	0.5	0.5	173.22	4.2	-8.5	10.1	9.0	1.09	9.275 SF		
400.0	399.8	398.9	398.8	0.7	0.8	-176.88	7.7	-10.0	18.5	16.9	1.66	11.172		
500.0	499.3	496.2	495.7	1.0	1.0	-170.28	15.9	-13.2	36.7	34.4	2.30	15.980		
600.0	598.0	591.6	590.2	1.3	1.3	-165.46	28.3	-15.6	62.9	60.0	2.91	21.609		
700.0	695.8	683.9	681.1	1.7	1.6	-161.61	44.5	-16.4	96.3	92.7	3.54	27.213		
800.0	792.4	772.5	767.5	2.2	1.9	-158.57	63.9	-15.5	136.7	132.5	4.18	32.658		
900.0	887.5	856.7	848.9	2.8	2.3	-156.08	85.7	-13.3	183.7	178.9	4.85	37.878		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.61	20.0	11.9	23.3					
100.0	100.0	100.0	100.0	0.1	0.1	30.61	20.0	11.9	23.3	23.1	0.18	129.480		
200.0	200.0	200.0	200.0	0.3	0.3	30.61	20.0	11.9	23.3	22.7	0.63	36.994 CC		
238.3	238.3	238.3	238.3	0.4	0.4	-93.13	20.0	11.9	23.3	22.5	0.80	29.190		
300.0	300.0	300.0	300.0	0.5	0.5	-94.26	20.0	11.9	23.3	22.3	1.07	21.816 ES		
400.0	399.8	399.8	399.8	0.7	0.8	-106.63	20.0	11.9	24.3	22.8	1.51	16.053		
500.0	499.3	499.3	499.3	1.0	1.0	-126.60	20.0	11.9	29.1	27.0	2.07	14.058 SF		
600.0	598.0	598.0	598.0	1.3	1.2	-144.42	20.0	11.9	40.4	37.7	2.72	14.865		
700.0	695.8	697.5	697.5	1.7	1.4	-154.17	19.9	14.3	57.3	53.9	3.35	17.083		
800.0	792.4	795.3	795.1	2.2	1.6	-158.94	19.7	19.7	77.9	74.0	3.96	19.697		
900.0	887.5	891.7	891.4	2.8	1.8	-162.50	19.4	25.0	103.8	99.2	4.57	22.703		
1,000.0	980.9	986.6	986.1	3.5	2.1	-165.15	19.2	30.2	134.8	129.6	5.17	26.045		
1,100.0	1,073.4	1,080.8	1,080.2	4.2	2.3	-167.16	18.9	35.3	168.0	162.4	5.63	29.828		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	34.12	5.8	4.0	7.0					
100.0	100.0	100.0	100.0	0.1	0.1	34.12	5.8	4.0	7.0	6.9	0.18	39.180		
200.0	200.0	200.0	200.0	0.3	0.3	34.12	5.8	4.0	7.0	6.4	0.63	11.194 CC		
252.6	252.6	252.6	252.6	0.4	0.4	-92.10	5.8	4.0	7.0	6.2	0.86	8.189		
300.0	300.0	300.0	300.0	0.5	0.5	-94.46	5.8	4.0	7.1	6.0	1.07	6.610 ES		
400.0	399.8	399.8	399.8	0.7	0.8	-129.30	5.8	4.0	9.1	7.6	1.56	5.851 SF		
500.0	499.3	499.3	499.3	1.0	1.0	-156.36	5.8	4.0	17.7	15.5	2.19	8.091		
600.0	598.0	599.5	599.5	1.3	1.2	-165.53	4.8	6.3	30.3	27.5	2.78	10.898		
700.0	695.8	700.4	700.1	1.7	1.4	-168.04	1.7	13.6	43.5	40.1	3.35	12.976		
800.0	792.4	799.8	798.8	2.2	1.7	-168.98	-2.7	24.2	58.3	54.4	3.93	14.826		
900.0	887.5	897.8	896.1	2.8	1.9	-170.15	-7.2	34.7	78.2	73.6	4.54	17.200		
1,000.0	980.9	994.6	992.3	3.5	2.2	-171.27	-11.6	45.1	103.0	97.9	5.15	20.019		
1,100.0	1,073.4	1,090.9	1,087.9	4.2	2.5	-172.17	-16.0	55.5	130.1	124.5	5.61	23.195		
1,200.0	1,165.9	1,187.1	1,183.4	5.0	2.7	-172.76	-20.4	65.8	157.2	151.1	6.09	25.797		
1,300.0	1,258.5	1,283.4	1,279.0	5.8	3.0	-173.17	-24.7	76.1	184.3	177.7	6.59	27.948		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-150.90	-14.2	-7.9	16.3					
100.0	100.0	100.0	100.0	0.1	0.1	-150.90	-14.2	-7.9	16.3	16.1	0.18	90.382		
200.0	200.0	200.0	200.0	0.3	0.3	-150.90	-14.2	-7.9	16.3	15.6	0.63	25.824		
300.0	300.0	300.0	300.0	0.5	0.5	88.14	-14.2	-7.9	16.2	15.1	1.07	15.171		
317.2	317.2	317.2	317.2	0.6	0.6	90.00	-14.2	-7.9	16.2	15.1	1.15	14.155 CC, ES		
400.0	399.8	399.8	399.8	0.7	0.8	106.14	-14.2	-7.9	16.9	15.4	1.51	11.142		
500.0	499.3	499.3	499.3	1.0	1.0	132.83	-14.2	-7.9	22.2	20.1	2.11	10.534 SF		
600.0	598.0	599.4	599.3	1.3	1.2	149.20	-16.0	-6.1	32.9	30.1	2.74	11.988		
700.0	695.8	700.1	699.7	1.7	1.4	156.08	-21.5	-0.4	45.3	42.0	3.34	13.553		
800.0	792.4	801.5	800.3	2.2	1.6	159.01	-30.8	9.1	58.5	54.6	3.96	14.764		
900.0	887.5	902.0	899.2	2.8	2.0	160.27	-43.3	21.9	72.7	68.0	4.62	15.741		
1,000.0	980.9	1,000.3	995.7	3.5	2.3	161.87	-56.1	34.9	91.0	85.7	5.29	17.200		
1,100.0	1,073.4	1,098.1	1,091.8	4.2	2.7	163.39	-68.8	47.9	111.6	105.7	5.85	19.090		
1,200.0	1,165.9	1,195.9	1,188.0	5.0	3.0	164.43	-81.5	60.9	132.2	125.8	6.42	20.601		
1,300.0	1,258.5	1,293.8	1,284.1	5.8	3.4	165.20	-94.2	73.9	152.8	145.8	7.00	21.821		
1,400.0	1,351.0	1,391.6	1,380.2	6.6	3.8	165.78	-106.9	86.9	173.5	165.9	7.60	22.822		
1,500.0	1,443.5	1,489.4	1,476.3	7.3	4.2	166.24	-119.6	99.8	194.2	186.0	8.21	23.643		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-151.69	-21.5	-11.6	24.4					
100.0	100.0	100.0	100.0	0.1	0.1	-151.69	-21.5	-11.6	24.4	24.2	0.18	135.742		
200.0	200.0	200.0	200.0	0.3	0.3	-151.69	-21.5	-11.6	24.4	23.8	0.63	38.783		
300.0	300.0	300.0	300.0	0.5	0.5	86.57	-21.5	-11.6	24.4	23.3	1.07	22.788		
339.8	339.8	339.8	339.8	0.6	0.6	90.00	-21.5	-11.6	24.3	23.1	1.24	19.562 CC, ES		
400.0	399.8	399.8	399.8	0.7	0.8	98.80	-21.5	-11.6	24.6	23.1	1.51	16.331		
500.0	499.3	499.6	499.5	1.0	1.0	115.00	-23.4	-9.8	27.6	25.6	2.01	13.705		
600.0	598.0	599.7	599.3	1.3	1.2	126.11	-29.3	-4.6	33.5	30.9	2.61	12.849		
700.0	695.8	700.1	698.9	1.7	1.4	132.55	-39.0	4.1	41.3	38.1	3.28	12.602		
800.0	792.4	800.9	797.9	2.2	1.8	135.85	-52.7	16.4	50.6	46.5	4.04	12.525		
900.0	887.5	901.4	895.7	2.8	2.2	137.38	-70.0	32.0	61.0	56.1	4.89	12.470 SF		
1,000.0	980.9	1,000.4	991.7	3.5	2.6	140.20	-88.1	48.1	74.7	68.9	5.80	12.873		
1,100.0	1,073.4	1,099.1	1,087.4	4.2	3.1	143.21	-106.0	64.3	90.3	83.6	6.62	13.629		
1,200.0	1,165.9	1,197.7	1,183.1	5.0	3.6	145.32	-124.0	80.4	106.0	98.6	7.44	14.244		
1,300.0	1,258.5	1,296.4	1,278.7	5.8	4.1	146.89	-141.9	96.5	121.9	113.6	8.27	14.749		
1,400.0	1,351.0	1,395.1	1,374.4	6.6	4.6	148.09	-159.9	112.6	137.8	128.8	9.09	15.163		
1,500.0	1,443.5	1,493.8	1,470.1	7.3	5.1	149.05	-177.9	128.7	153.8	143.9	9.92	15.508		
1,600.0	1,536.0	1,592.5	1,565.8	8.1	5.6	149.82	-195.8	144.8	169.9	159.1	10.75	15.799		
1,700.0	1,628.6	1,691.2	1,661.5	8.9	6.1	150.47	-213.8	161.0	185.9	174.3	11.59	16.047		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	-128.88	-16.4	-20.3	26.1					
100.0	100.0	100.0	100.0	0.1	0.1	-128.88	-16.4	-20.3	26.1	25.9	0.18	145.207		
200.0	200.0	200.0	200.0	0.3	0.3	-128.88	-16.4	-20.3	26.1	25.5	0.63	41.488 CC		
230.0	230.0	230.0	230.0	0.4	0.4	108.09	-16.4	-20.3	26.1	25.4	0.76	34.331		
300.0	300.0	300.0	300.0	0.5	0.5	109.20	-16.4	-20.3	26.3	25.2	1.07	24.559 ES		
400.0	399.8	398.7	398.6	0.7	0.7	115.72	-18.8	-21.2	30.4	28.9	1.51	20.106 SF		
500.0	499.3	496.7	496.3	1.0	1.0	121.71	-25.9	-23.8	41.2	39.2	2.05	20.134		
600.0	598.0	595.2	594.1	1.3	1.2	125.24	-37.6	-27.1	57.6	55.0	2.67	21.556		
700.0	695.8	694.6	692.2	1.7	1.5	126.56	-53.5	-27.6	75.9	72.5	3.38	22.480		
800.0	792.4	794.3	789.8	2.2	1.9	126.78	-73.3	-24.8	95.5	91.3	4.21	22.693		
900.0	887.5	892.1	885.1	2.8	2.3	127.32	-95.2	-20.0	117.0	111.8	5.16	22.686		
1,000.0	980.9	988.9	979.3	3.5	2.7	129.18	-116.8	-15.3	141.7	135.5	6.20	22.878		
1,100.0	1,073.4	1,085.1	1,073.0	4.2	3.2	131.49	-138.3	-10.5	168.1	160.9	7.22	23.281		
1,200.0	1,165.9	1,181.4	1,166.7	5.0	3.6	133.17	-159.9	-5.8	194.6	186.4	8.25	23.595		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	15.64	39.3	11.0	40.8					
100.0	100.0	100.0	100.0	0.1	0.1	15.64	39.3	11.0	40.8	40.7	0.18	227.172		
200.0	200.0	200.0	200.0	0.3	0.3	15.64	39.3	11.0	40.8	40.2	0.63	64.906 CC, ES		
300.0	300.0	298.3	298.2	0.5	0.5	-106.35	40.8	13.0	43.1	42.0	1.07	40.202		
400.0	399.8	396.0	395.7	0.7	0.8	-106.63	45.3	19.1	50.8	49.2	1.54	32.871		
500.0	499.3	492.8	491.7	1.0	1.0	-108.34	52.7	29.0	64.0	61.9	2.09	30.612		
600.0	598.0	588.2	585.5	1.3	1.4	-110.33	62.9	42.5	82.9	80.1	2.73	30.355 SF		
700.0	695.8	681.7	676.6	1.7	1.8	-112.05	75.5	59.4	107.3	103.8	3.47	30.890		
800.0	792.4	772.9	764.4	2.2	2.2	-113.32	90.3	79.4	137.1	132.8	4.32	31.710		
900.0	887.5	861.6	848.4	2.8	2.8	-114.17	107.2	101.9	172.1	166.8	5.28	32.604		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	12.28	32.4	7.1	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	12.28	32.4	7.1	33.2	33.0	0.18	184.502		
200.0	200.0	200.0	200.0	0.3	0.3	12.28	32.4	7.1	33.2	32.5	0.63	52.715 CC		
227.8	227.8	227.8	227.8	0.4	0.4	-111.15	32.4	7.1	33.2	32.5	0.75	44.163 ES		
300.0	300.0	299.4	299.4	0.5	0.5	-111.21	32.8	7.6	33.9	32.8	1.07	31.641		
400.0	399.8	397.9	397.8	0.7	0.8	-112.73	35.4	11.9	39.4	37.8	1.53	25.697		
500.0	499.3	495.8	495.1	1.0	1.0	-114.71	40.8	20.5	50.4	48.3	2.07	24.280 SF		
600.0	598.0	592.6	590.7	1.3	1.3	-116.36	48.6	33.1	66.8	64.1	2.71	24.691		
700.0	695.8	687.8	684.0	1.7	1.7	-117.46	58.8	49.5	88.7	85.2	3.44	25.768		
800.0	792.4	781.1	774.3	2.2	2.1	-118.09	71.1	69.4	115.8	111.5	4.29	27.001		
900.0	887.5	872.3	861.3	2.8	2.6	-118.34	85.4	92.4	147.9	142.6	5.25	28.190		
1,000.0	980.9	961.3	945.0	3.5	3.2	-118.39	101.5	118.3	184.8	178.5	6.31	29.287		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	30.00	34.2	19.8	39.5					
100.0	100.0	100.0	100.0	0.1	0.1	30.00	34.2	19.8	39.5	39.3	0.18	219.799		
200.0	200.0	200.0	200.0	0.3	0.3	30.00	34.2	19.8	39.5	38.9	0.63	62.800 CC, ES		
300.0	300.0	299.0	298.9	0.5	0.5	-92.65	34.5	21.2	40.5	39.5	1.06	38.122		
400.0	399.8	397.4	397.1	0.7	0.8	-93.11	35.8	27.4	45.1	43.6	1.51	29.987		
500.0	499.3	495.3	494.4	1.0	1.0	-94.81	38.2	38.4	53.5	51.5	2.03	26.360		
600.0	598.0	592.7	590.4	1.3	1.3	-96.92	41.5	54.3	65.6	63.0	2.66	24.630		
700.0	695.8	689.2	684.6	1.7	1.7	-98.91	45.8	74.7	81.6	78.1	3.44	23.739		
800.0	792.4	784.6	776.6	2.2	2.2	-100.54	51.1	99.4	101.3	96.9	4.36	23.230		
900.0	887.5	880.2	867.5	2.8	2.8	-102.00	57.2	128.2	124.5	119.0	5.44	22.885		
1,000.0	980.9	976.7	959.1	3.5	3.4	-104.53	63.5	158.0	149.4	142.7	6.64	22.496		
1,100.0	1,073.4	1,072.9	1,050.5	4.2	4.0	-107.56	69.7	187.8	175.3	167.4	7.90	22.187 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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	30.06	27.3	15.8	31.6					
100.0	100.0	100.0	100.0	0.1	0.1	30.06	27.3	15.8	31.6	31.4	0.18	175.524		
200.0	200.0	200.0	200.0	0.3	0.3	30.06	27.3	15.8	31.6	30.9	0.63	50.150 CC		
235.7	235.7	235.7	235.7	0.4	0.4	-93.51	27.3	15.8	31.6	30.8	0.79	40.153		
300.0	300.0	300.0	300.0	0.5	0.5	-94.40	27.3	15.8	31.6	30.5	1.07	29.565 ES		
400.0	399.8	399.3	399.2	0.7	0.8	-99.30	27.2	18.4	33.3	31.8	1.50	22.271		
500.0	499.3	498.5	498.1	1.0	1.0	-103.81	26.9	26.1	38.0	36.0	1.99	19.091		
600.0	598.0	597.6	596.4	1.3	1.3	-107.13	26.4	38.9	45.7	43.1	2.60	17.583		
700.0	695.8	696.5	693.6	1.7	1.6	-109.22	25.7	56.8	56.2	52.8	3.34	16.827		
800.0	792.4	795.0	789.5	2.2	2.0	-110.33	24.8	79.5	69.4	65.2	4.23	16.397		
900.0	887.5	893.1	883.6	2.8	2.5	-110.79	23.8	107.1	85.4	80.1	5.30	16.113		
1,000.0	980.9	991.3	977.1	3.5	3.1	-112.23	22.6	137.1	103.6	97.1	6.50	15.936		
1,100.0	1,073.4	1,089.4	1,070.5	4.2	3.7	-114.56	21.5	167.1	122.8	115.1	7.73	15.883		
1,200.0	1,165.9	1,187.4	1,163.8	5.0	4.3	-116.26	20.3	197.1	142.2	133.2	8.98	15.838		
1,300.0	1,258.5	1,285.4	1,257.1	5.8	4.9	-117.55	19.1	227.1	161.7	151.4	10.23	15.803		
1,400.0	1,351.0	1,383.5	1,350.5	6.6	5.5	-118.57	18.0	257.1	181.2	169.7	11.49	15.774 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	0.0	0.0	0.0	0.0	31.08	13.1	7.9	15.3					
100.0	100.0	100.0	100.0	0.1	0.1	31.08	13.1	7.9	15.3	15.1	0.18	85.146		
200.0	200.0	200.0	200.0	0.3	0.3	31.08	13.1	7.9	15.3	14.7	0.63	24.327 CC		
241.7	241.7	241.7	241.7	0.4	0.4	-93.04	13.1	7.9	15.3	14.5	0.81	18.854		
300.0	300.0	300.0	300.0	0.5	0.5	-94.63	13.1	7.9	15.3	14.3	1.07	14.358 ES		
400.0	399.8	399.9	399.9	0.7	0.8	-107.83	12.6	9.3	16.5	15.0	1.50	10.955		
500.0	499.3	500.0	499.7	1.0	1.0	-117.87	10.5	15.5	19.6	17.6	2.01	9.750		
600.0	598.0	600.1	599.2	1.3	1.2	-123.51	6.7	26.6	24.3	21.7	2.61	9.312		
700.0	695.8	700.5	698.1	1.7	1.5	-125.98	1.2	42.7	30.3	27.0	3.31	9.155		
800.0	792.4	800.9	796.0	2.2	2.0	-126.54	-6.0	63.7	37.4	33.3	4.13	9.057		
900.0	887.5	901.4	892.7	2.8	2.5	-126.02	-14.8	89.6	45.6	40.5	5.11	8.931		
1,000.0	980.9	1,001.7	987.7	3.5	3.1	-125.05	-25.2	120.1	55.0	48.7	6.26	8.775		
1,100.0	1,073.4	1,101.2	1,081.4	4.2	3.7	-124.82	-36.1	151.7	65.0	57.5	7.47	8.695		
1,200.0	1,165.9	1,200.7	1,175.1	5.0	4.4	-124.65	-46.9	183.4	75.0	66.3	8.73	8.597		
1,300.0	1,258.5	1,300.2	1,268.7	5.8	5.1	-124.53	-57.7	215.1	85.1	75.1	10.01	8.503		
1,400.0	1,351.0	1,399.7	1,362.4	6.6	5.7	-124.43	-68.6	246.8	95.1	83.8	11.30	8.417		
1,500.0	1,443.5	1,499.2	1,456.1	7.3	6.4	-124.35	-79.4	278.5	105.2	92.6	12.61	8.342		
1,600.0	1,536.0	1,598.7	1,549.8	8.1	7.1	-124.28	-90.2	310.2	115.2	101.3	13.92	8.276		
1,700.0	1,628.6	1,698.2	1,643.5	8.9	7.8	-124.22	-101.1	341.9	125.2	110.0	15.24	8.218		
1,800.0	1,721.1	1,797.7	1,737.2	9.7	8.5	-124.18	-111.9	373.6	135.3	118.7	16.56	8.168		
1,900.0	1,813.6	1,897.2	1,830.9	10.5	9.2	-124.13	-122.7	405.3	145.3	127.4	17.89	8.123		
2,000.0	1,906.1	1,996.7	1,924.6	11.3	9.9	-124.10	-133.6	436.9	155.4	136.2	19.22	8.083		
2,100.0	1,998.7	2,096.2	2,018.3	12.1	10.6	-124.07	-144.4	468.6	165.4	144.9	20.55	8.048		
2,200.0	2,091.2	2,195.6	2,111.9	12.8	11.3	-124.04	-155.3	500.3	175.5	153.6	21.89	8.016		
2,300.0	2,183.7	2,295.1	2,205.6	13.6	12.0	-124.01	-166.1	532.0	185.5	162.3	23.22	7.988		
2,400.0	2,276.2	2,394.6	2,299.3	14.4	12.7	-123.99	-176.9	563.7	195.5	171.0	24.56	7.962 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-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-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	-151.53	-7.3	-4.0	8.3					
100.0	100.0	100.0	100.0	0.1	0.1	-151.53	-7.3	-4.0	8.3	8.1	0.18	46.113		
200.0	200.0	200.0	200.0	0.3	0.3	-151.53	-7.3	-4.0	8.3	7.7	0.63	13.175		
300.0	300.0	300.0	300.0	0.5	0.5	89.72	-7.3	-4.0	8.3	7.2	1.07	7.730		
301.5	301.5	301.5	301.5	0.5	0.5	90.00	-7.3	-4.0	8.3	7.2	1.08	7.670	CC, ES	
400.0	399.8	399.8	399.8	0.7	0.8	122.07	-7.3	-4.0	9.8	8.2	1.54	6.322		
500.0	499.3	499.9	499.9	1.0	1.0	146.23	-9.1	-2.0	15.7	13.6	2.13	7.373		
600.0	598.0	600.4	600.0	1.3	1.2	154.29	-14.5	3.7	23.3	20.6	2.72	8.588		
700.0	695.8	701.3	700.0	1.7	1.4	156.81	-23.5	13.3	31.6	28.2	3.33	9.488		
800.0	792.4	802.5	799.5	2.2	1.8	157.05	-36.3	26.8	40.2	36.2	3.98	10.099		
900.0	887.5	904.1	898.2	2.8	2.2	156.20	-52.6	44.2	49.2	44.5	4.70	10.462		
1,000.0	980.9	1,006.0	995.9	3.5	2.7	154.76	-72.7	65.5	58.5	53.0	5.51	10.620		
1,100.0	1,073.4	1,108.4	1,092.3	4.2	3.4	151.91	-96.3	90.6	65.6	59.2	6.38	10.283		
1,200.0	1,165.9	1,210.9	1,186.8	5.0	4.1	146.69	-123.6	119.5	68.7	61.2	7.55	9.109		
1,300.0	1,258.5	1,311.3	1,277.7	5.8	4.9	139.66	-152.7	150.5	69.7	60.7	9.08	7.680		
1,400.0	1,351.0	1,411.0	1,367.9	6.6	5.8	132.83	-181.8	181.4	71.6	60.8	10.83	6.612		
1,500.0	1,443.5	1,510.6	1,458.0	7.3	6.6	126.44	-210.9	212.3	74.5	61.8	12.71	5.859		
1,600.0	1,536.0	1,610.2	1,548.1	8.1	7.5	120.57	-240.0	243.2	78.2	63.6	14.64	5.340		
1,700.0	1,628.6	1,709.8	1,638.3	8.9	8.4	115.29	-269.1	274.1	82.7	66.1	16.57	4.987		
1,800.0	1,721.1	1,809.5	1,728.4	9.7	9.2	110.58	-298.2	305.0	87.7	69.3	18.47	4.750		
1,900.0	1,813.6	1,909.1	1,818.5	10.5	10.1	106.41	-327.3	335.9	93.4	73.0	20.32	4.594		
2,000.0	1,906.1	2,008.7	1,908.7	11.3	11.0	102.72	-356.4	366.7	99.4	77.3	22.12	4.495		
2,100.0	1,998.7	2,108.3	1,998.8	12.1	11.8	99.47	-385.5	397.6	105.8	82.0	23.86	4.434		
2,200.0	2,091.2	2,208.0	2,088.9	12.8	12.7	96.60	-414.6	428.5	112.5	87.0	25.56	4.402		
2,300.0	2,183.7	2,307.6	2,179.1	13.6	13.6	94.06	-443.7	459.4	119.5	92.3	27.22	4.390	SF	
2,400.0	2,276.2	2,407.2	2,269.2	14.4	14.5	91.80	-472.8	490.3	126.7	97.8	28.85	4.391		
2,500.0	2,368.8	2,506.8	2,359.4	15.2	15.4	89.78	-501.8	521.2	134.0	103.6	30.44	4.402		
2,600.0	2,461.3	2,606.5	2,449.5	16.0	16.2	87.98	-530.9	552.1	141.5	109.5	32.01	4.421		
2,700.0	2,553.8	2,706.1	2,539.6	16.8	17.1	86.36	-560.0	583.0	149.2	115.6	33.56	4.444		
2,800.0	2,646.3	2,805.7	2,629.8	17.6	18.0	84.89	-589.1	613.9	156.9	121.8	35.09	4.471		
2,900.0	2,738.9	2,905.3	2,719.9	18.4	18.9	83.57	-618.2	644.8	164.7	128.1	36.61	4.500		
3,000.0	2,831.4	3,005.0	2,810.0	19.2	19.8	82.36	-647.3	675.7	172.6	134.5	38.11	4.530		
3,100.0	2,923.9	3,104.6	2,900.2	20.0	20.6	81.26	-676.4	706.6	180.6	141.0	39.60	4.561		
3,200.0	3,016.4	3,204.2	2,990.3	20.8	21.5	80.26	-705.5	737.5	188.6	147.5	41.08	4.592		
3,300.0	3,109.0	3,303.8	3,080.4	21.6	22.4	79.33	-734.6	768.4	196.7	154.2	42.55	4.623		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-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 33C-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT SWD E1-797 - VH - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-151.34	-28.4	-15.5	32.4					
100.0	100.0	100.0	100.0	0.1	0.1	-151.34	-28.4	-15.5	32.4	32.2	0.18	180.051		
200.0	200.0	200.0	200.0	0.3	0.3	-151.34	-28.4	-15.5	32.4	31.7	0.63	51.443		
300.0	300.0	300.0	300.0	0.5	0.5	86.54	-28.4	-15.5	32.3	31.3	1.07	30.243		
349.7	349.7	349.7	349.7	0.6	0.7	90.00	-28.4	-15.5	32.3	31.0	1.29	25.096 CC		
400.0	399.8	399.8	399.8	0.7	0.8	95.79	-28.4	-15.5	32.4	30.9	1.50	21.556 ES		
500.0	499.3	499.3	499.3	1.0	1.0	112.88	-28.4	-15.5	35.1	33.0	2.03	17.285		
600.0	598.0	598.0	598.0	1.3	1.2	131.83	-28.4	-15.5	43.6	41.0	2.69	16.240 SF		
700.0	695.8	695.8	695.8	1.7	1.4	146.51	-28.4	-15.5	59.6	56.3	3.39	17.600		
800.0	792.4	792.4	792.4	2.2	1.6	156.13	-28.4	-15.5	82.6	78.5	4.07	20.313		
900.0	887.5	887.5	887.5	2.8	1.9	162.25	-28.4	-15.5	111.7	107.0	4.72	23.679		
1,000.0	980.9	980.9	980.9	3.5	2.1	166.27	-28.4	-15.5	146.4	141.0	5.34	27.412		
1,100.0	1,073.4	1,073.4	1,073.4	4.2	2.3	169.08	-28.4	-15.5	183.6	177.8	5.81	31.617		

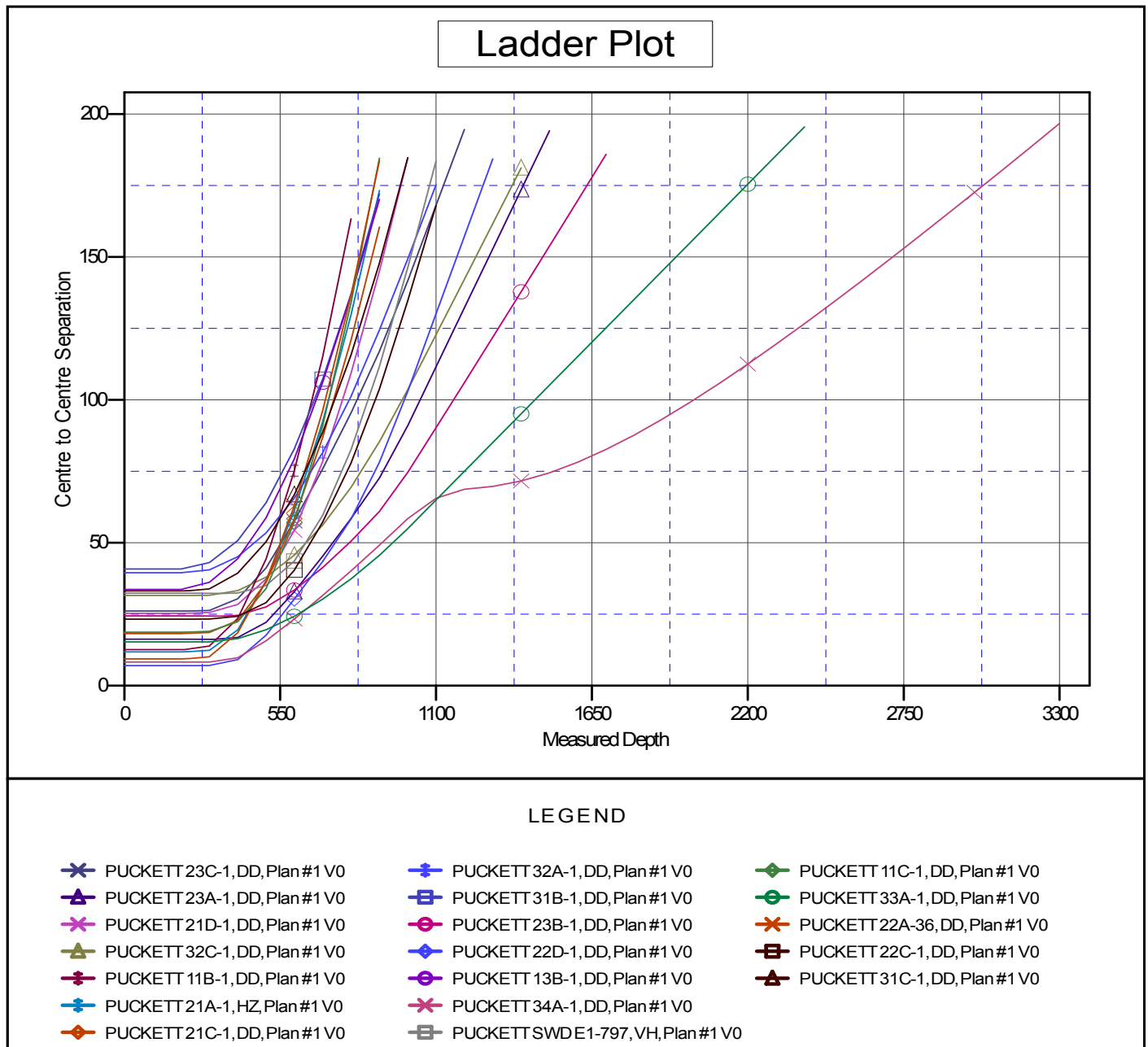
Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 33C-1
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Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 33C-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 33C-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°



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