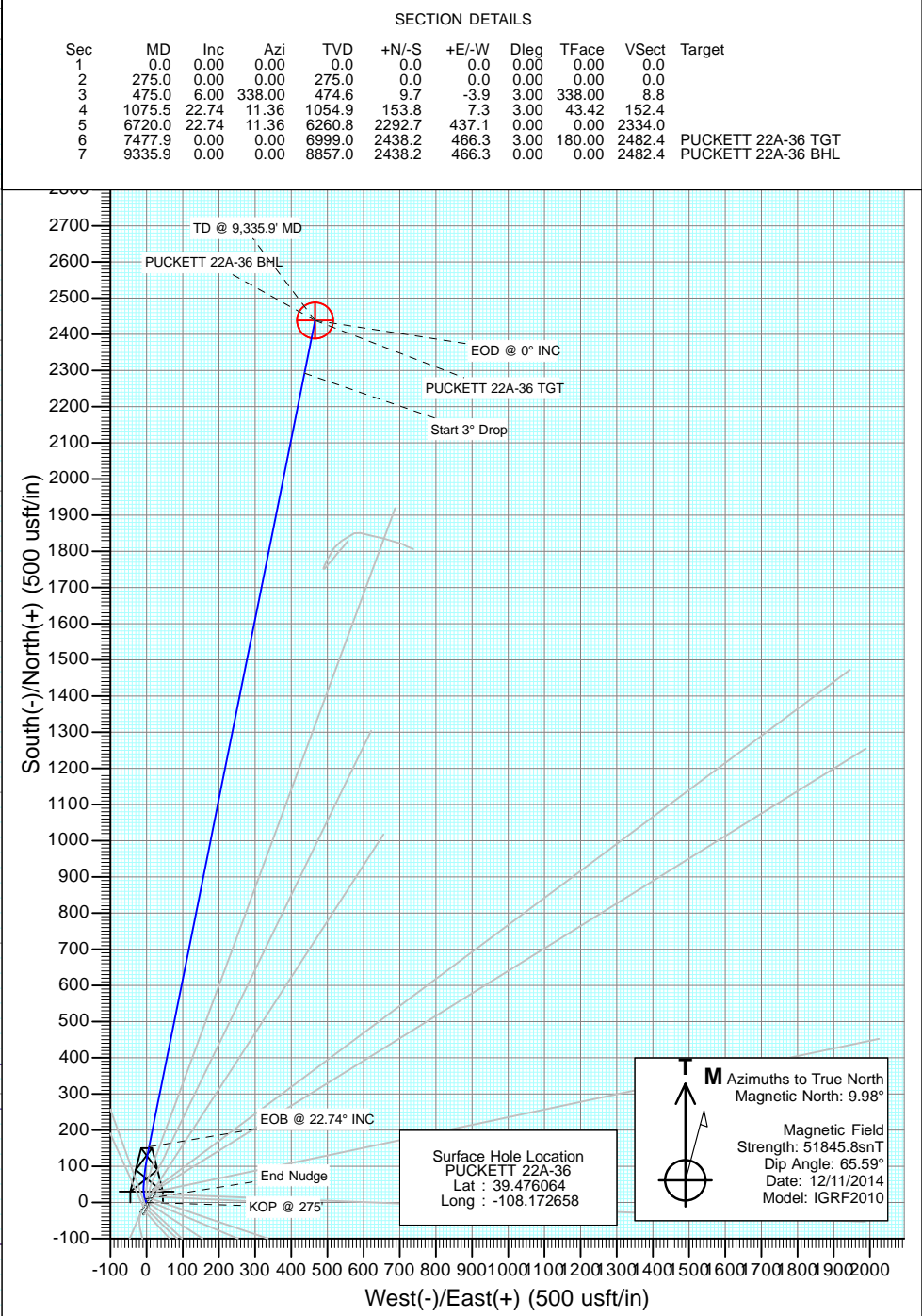
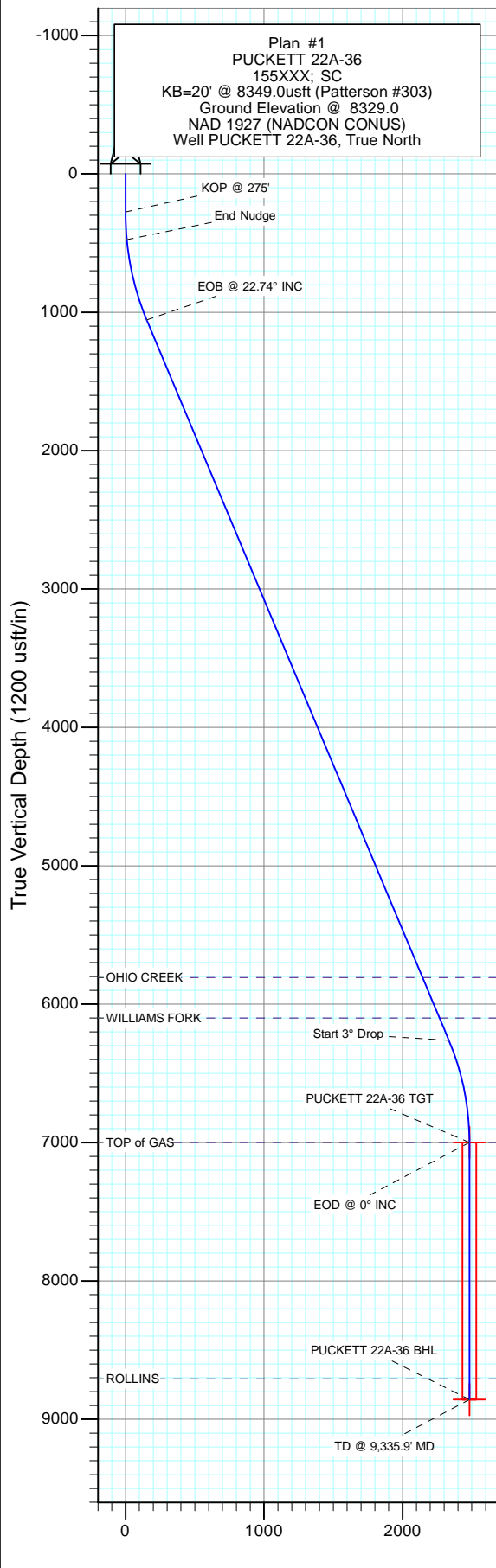


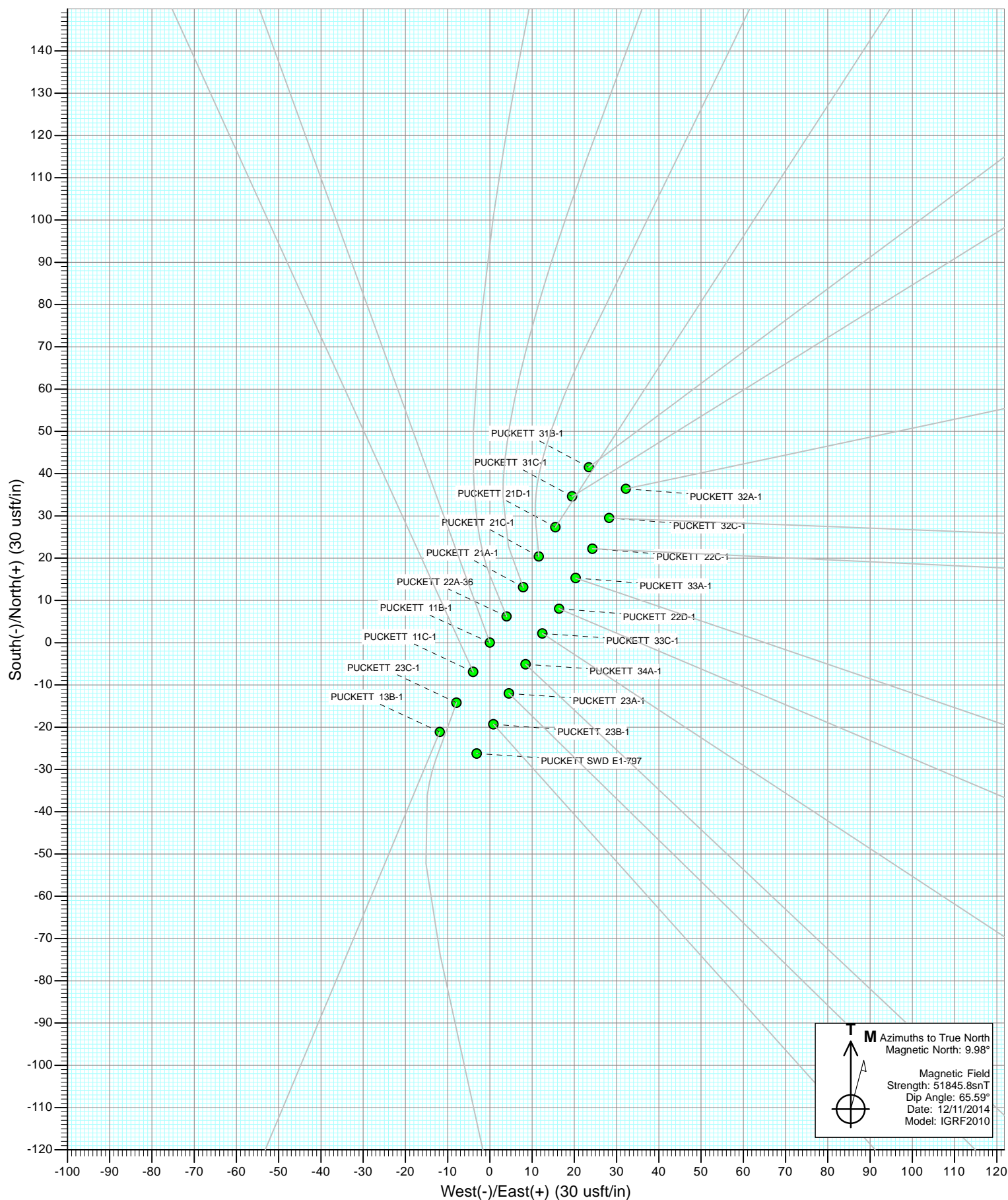


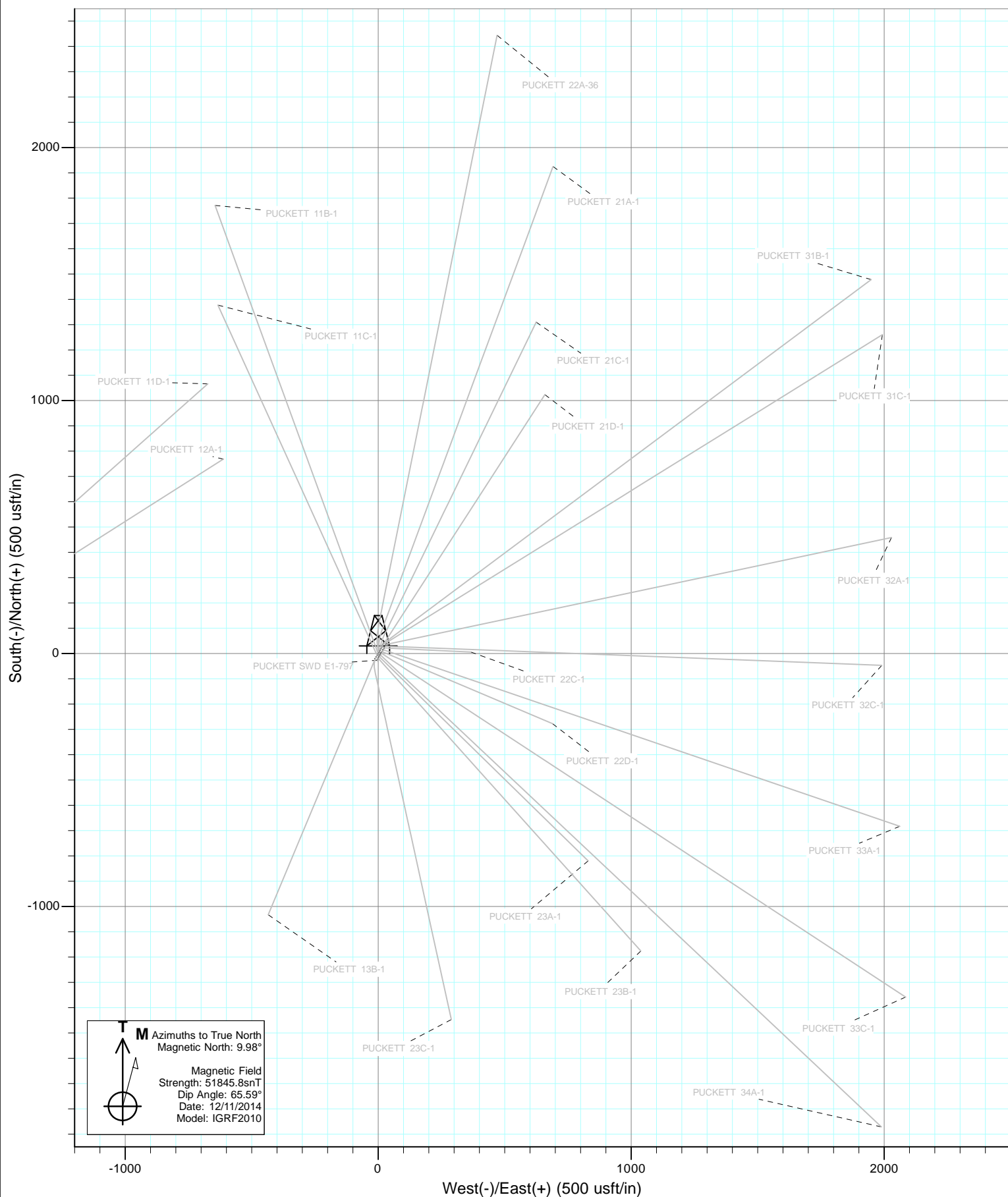
Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 22A-36
Wellbore: DD
Design: Plan #1



DESIGN TARGET DETAILS

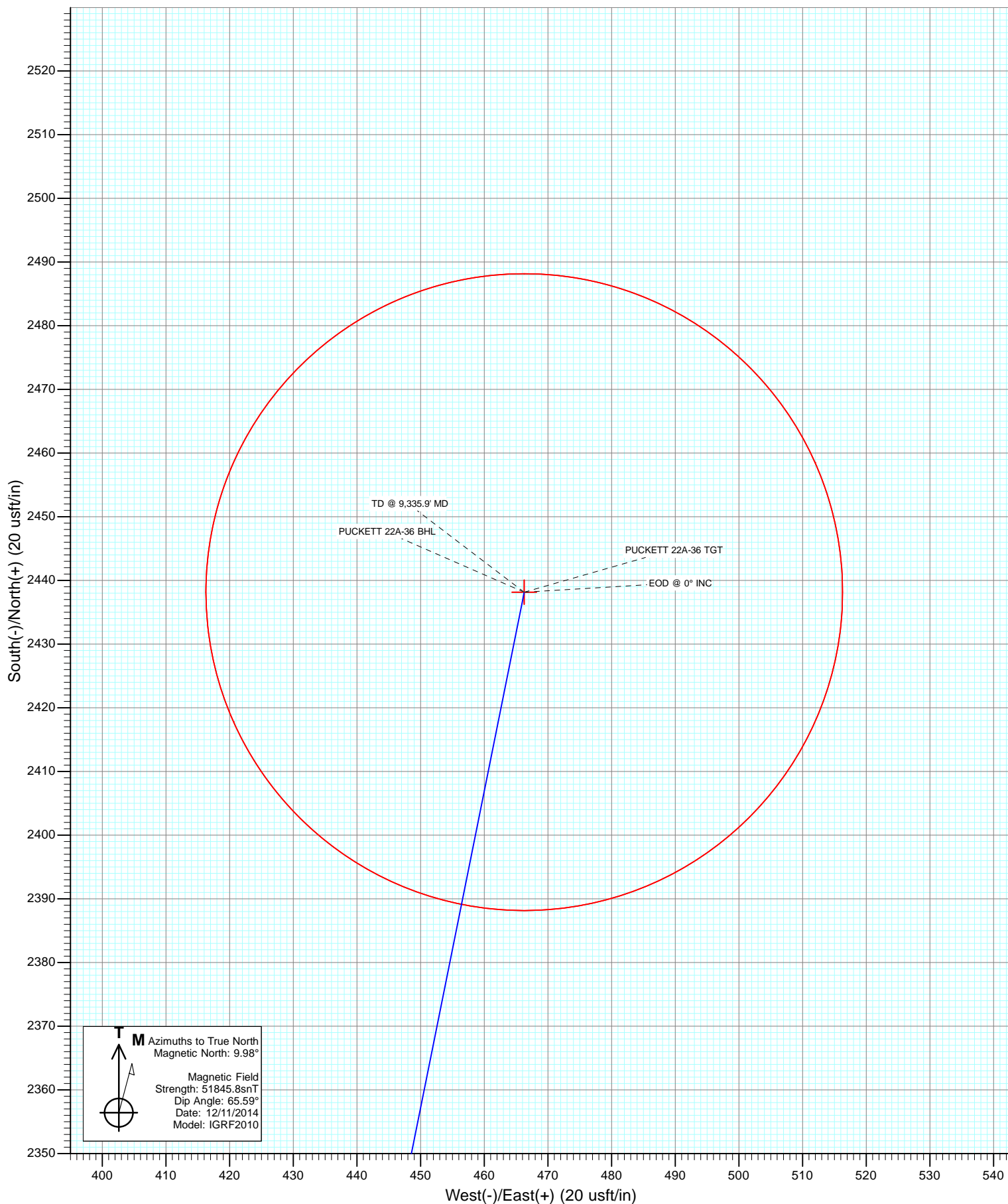
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 22A-36 TGT	2438.2	466.3	611793.74	1246188.10	39.482758	-108.171006
PUCKETT 22A-36 BHL	2438.2	466.3	611793.74	1246188.10	39.482758	-108.171006







Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 22A-36
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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 22A-36					
Well Position	+N/-S	0.0 usft	Northing:	609,370.34 usft	Latitude:	39.476064
	+E/-W	0.0 usft	Easting:	1,245,650.28 usft	Longitude:	-108.172658
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	12/11/2014	9.98	65.59	51,846

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	10.83

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
275.0	0.00	0.00	275.0	0.0	0.0	0.00	0.00	0.00	0.00	
475.0	6.00	338.00	474.6	9.7	-3.9	3.00	3.00	0.00	338.00	
1,075.5	22.74	11.36	1,054.9	153.8	7.3	3.00	2.79	5.56	43.42	
6,720.0	22.74	11.36	6,260.8	2,292.7	437.1	0.00	0.00	0.00	0.00	
7,477.9	0.00	0.00	6,999.0	2,438.2	466.3	3.00	-3.00	0.00	180.00	PUCKETT 22A-36 TC
9,335.9	0.00	0.00	8,857.0	2,438.2	466.3	0.00	0.00	0.00	0.00	PUCKETT 22A-36 B-

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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	
275.0	0.00	0.00	275.0	0.0	0.0	0.0	0.00	0.00	KOP @ 275'
300.0	0.75	338.00	300.0	0.2	-0.1	0.1	3.00	3.00	
400.0	3.75	338.00	399.9	3.8	-1.5	3.4	3.00	3.00	
475.0	6.00	338.00	474.6	9.7	-3.9	8.8	3.00	3.00	End Nudge
500.0	6.56	342.51	499.5	12.3	-4.8	11.1	3.00	2.26	
600.0	9.10	354.52	598.6	25.6	-7.3	23.8	3.00	2.53	
700.0	11.85	1.17	696.9	43.7	-7.9	41.5	3.00	2.75	
800.0	14.69	5.31	794.2	66.6	-6.5	64.2	3.00	2.85	
900.0	17.59	8.13	890.3	94.2	-3.2	91.9	3.00	2.90	
1,000.0	20.52	10.16	984.8	126.4	2.1	124.6	3.00	2.93	
1,075.5	22.74	11.36	1,054.9	153.8	7.3	152.4	3.00	2.94	EOB @ 22.74° INC
1,100.0	22.74	11.36	1,077.5	163.0	9.1	161.9	0.00	0.00	
1,200.0	22.74	11.36	1,169.8	200.9	16.8	200.5	0.00	0.00	
1,300.0	22.74	11.36	1,262.0	238.8	24.4	239.2	0.00	0.00	
1,400.0	22.74	11.36	1,354.2	276.7	32.0	277.8	0.00	0.00	
1,500.0	22.74	11.36	1,446.5	314.6	39.6	316.5	0.00	0.00	
1,600.0	22.74	11.36	1,538.7	352.5	47.2	355.1	0.00	0.00	
1,700.0	22.74	11.36	1,630.9	390.4	54.8	393.8	0.00	0.00	
1,800.0	22.74	11.36	1,723.1	428.3	62.4	432.4	0.00	0.00	
1,900.0	22.74	11.36	1,815.4	466.2	70.1	471.1	0.00	0.00	
2,000.0	22.74	11.36	1,907.6	504.1	77.7	509.7	0.00	0.00	
2,100.0	22.74	11.36	1,999.8	542.0	85.3	548.4	0.00	0.00	
2,200.0	22.74	11.36	2,092.1	579.9	92.9	587.0	0.00	0.00	
2,300.0	22.74	11.36	2,184.3	617.8	100.5	625.7	0.00	0.00	
2,400.0	22.74	11.36	2,276.5	655.7	108.1	664.3	0.00	0.00	
2,500.0	22.74	11.36	2,368.7	693.6	115.7	702.9	0.00	0.00	
2,600.0	22.74	11.36	2,461.0	731.4	123.4	741.6	0.00	0.00	
2,700.0	22.74	11.36	2,553.2	769.3	131.0	780.2	0.00	0.00	
2,800.0	22.74	11.36	2,645.4	807.2	138.6	818.9	0.00	0.00	
2,900.0	22.74	11.36	2,737.7	845.1	146.2	857.5	0.00	0.00	
3,000.0	22.74	11.36	2,829.9	883.0	153.8	896.2	0.00	0.00	
3,100.0	22.74	11.36	2,922.1	920.9	161.4	934.8	0.00	0.00	
3,200.0	22.74	11.36	3,014.3	958.8	169.0	973.5	0.00	0.00	
3,300.0	22.74	11.36	3,106.6	996.7	176.7	1,012.1	0.00	0.00	
3,400.0	22.74	11.36	3,198.8	1,034.6	184.3	1,050.8	0.00	0.00	
3,500.0	22.74	11.36	3,291.0	1,072.5	191.9	1,089.4	0.00	0.00	
3,600.0	22.74	11.36	3,383.3	1,110.4	199.5	1,128.1	0.00	0.00	
3,700.0	22.74	11.36	3,475.5	1,148.3	207.1	1,166.7	0.00	0.00	
3,800.0	22.74	11.36	3,567.7	1,186.2	214.7	1,205.4	0.00	0.00	
3,900.0	22.74	11.36	3,659.9	1,224.1	222.3	1,244.0	0.00	0.00	
4,000.0	22.74	11.36	3,752.2	1,262.0	230.0	1,282.7	0.00	0.00	
4,100.0	22.74	11.36	3,844.4	1,299.8	237.6	1,321.3	0.00	0.00	
4,200.0	22.74	11.36	3,936.6	1,337.7	245.2	1,360.0	0.00	0.00	
4,300.0	22.74	11.36	4,028.9	1,375.6	252.8	1,398.6	0.00	0.00	
4,400.0	22.74	11.36	4,121.1	1,413.5	260.4	1,437.3	0.00	0.00	
4,500.0	22.74	11.36	4,213.3	1,451.4	268.0	1,475.9	0.00	0.00	
4,600.0	22.74	11.36	4,305.5	1,489.3	275.6	1,514.6	0.00	0.00	
4,700.0	22.74	11.36	4,397.8	1,527.2	283.2	1,553.2	0.00	0.00	
4,800.0	22.74	11.36	4,490.0	1,565.1	290.9	1,591.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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
4,900.0	22.74	11.36	4,582.2	1,603.0	298.5	1,630.5	0.00	0.00	
5,000.0	22.74	11.36	4,674.5	1,640.9	306.1	1,669.2	0.00	0.00	
5,100.0	22.74	11.36	4,766.7	1,678.8	313.7	1,707.8	0.00	0.00	
5,200.0	22.74	11.36	4,858.9	1,716.7	321.3	1,746.5	0.00	0.00	
5,300.0	22.74	11.36	4,951.1	1,754.6	328.9	1,785.1	0.00	0.00	
5,400.0	22.74	11.36	5,043.4	1,792.5	336.5	1,823.8	0.00	0.00	
5,500.0	22.74	11.36	5,135.6	1,830.4	344.2	1,862.4	0.00	0.00	
5,600.0	22.74	11.36	5,227.8	1,868.2	351.8	1,901.1	0.00	0.00	
5,700.0	22.74	11.36	5,320.1	1,906.1	359.4	1,939.7	0.00	0.00	
5,800.0	22.74	11.36	5,412.3	1,944.0	367.0	1,978.4	0.00	0.00	
5,900.0	22.74	11.36	5,504.5	1,981.9	374.6	2,017.0	0.00	0.00	
6,000.0	22.74	11.36	5,596.7	2,019.8	382.2	2,055.7	0.00	0.00	
6,100.0	22.74	11.36	5,689.0	2,057.7	389.8	2,094.3	0.00	0.00	
6,200.0	22.74	11.36	5,781.2	2,095.6	397.5	2,133.0	0.00	0.00	
6,228.0	22.74	11.36	5,807.0	2,106.2	399.6	2,143.8	0.00	0.00	OHIO CREEK
6,300.0	22.74	11.36	5,873.4	2,133.5	405.1	2,171.6	0.00	0.00	
6,400.0	22.74	11.36	5,965.7	2,171.4	412.7	2,210.3	0.00	0.00	
6,500.0	22.74	11.36	6,057.9	2,209.3	420.3	2,248.9	0.00	0.00	
6,545.7	22.74	11.36	6,100.0	2,226.6	423.8	2,266.6	0.00	0.00	WILLIAMS FORK
6,600.0	22.74	11.36	6,150.1	2,247.2	427.9	2,287.6	0.00	0.00	
6,700.0	22.74	11.36	6,242.3	2,285.1	435.5	2,326.2	0.00	0.00	
6,720.0	22.74	11.36	6,260.8	2,292.7	437.1	2,333.9	0.00	0.00	Start 3° Drop
6,800.0	20.34	11.36	6,335.2	2,321.4	442.8	2,363.3	3.00	-3.00	
6,900.0	17.34	11.36	6,429.8	2,353.1	449.2	2,395.6	3.00	-3.00	
7,000.0	14.34	11.36	6,526.0	2,379.8	454.6	2,422.9	3.00	-3.00	
7,100.0	11.34	11.36	6,623.5	2,401.6	459.0	2,445.1	3.00	-3.00	
7,200.0	8.34	11.36	6,722.0	2,418.4	462.3	2,462.2	3.00	-3.00	
7,300.0	5.34	11.36	6,821.3	2,430.1	464.7	2,474.1	3.00	-3.00	
7,400.0	2.34	11.36	6,921.1	2,436.6	466.0	2,480.8	3.00	-3.00	
7,477.9	0.00	0.00	6,999.0	2,438.2	466.3	2,482.4	3.00	-3.00	EOD @ 0° INC - TOP of GAS
7,500.0	0.00	0.00	7,021.1	2,438.2	466.3	2,482.4	0.00	0.00	
7,600.0	0.00	0.00	7,121.1	2,438.2	466.3	2,482.4	0.00	0.00	
7,700.0	0.00	0.00	7,221.1	2,438.2	466.3	2,482.4	0.00	0.00	
7,800.0	0.00	0.00	7,321.1	2,438.2	466.3	2,482.4	0.00	0.00	
7,900.0	0.00	0.00	7,421.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,000.0	0.00	0.00	7,521.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,100.0	0.00	0.00	7,621.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,200.0	0.00	0.00	7,721.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,300.0	0.00	0.00	7,821.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,400.0	0.00	0.00	7,921.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,500.0	0.00	0.00	8,021.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,600.0	0.00	0.00	8,121.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,700.0	0.00	0.00	8,221.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,800.0	0.00	0.00	8,321.1	2,438.2	466.3	2,482.4	0.00	0.00	
8,900.0	0.00	0.00	8,421.1	2,438.2	466.3	2,482.4	0.00	0.00	
9,000.0	0.00	0.00	8,521.1	2,438.2	466.3	2,482.4	0.00	0.00	
9,100.0	0.00	0.00	8,621.1	2,438.2	466.3	2,482.4	0.00	0.00	
9,185.9	0.00	0.00	8,707.0	2,438.2	466.3	2,482.4	0.00	0.00	ROLLINS
9,200.0	0.00	0.00	8,721.1	2,438.2	466.3	2,482.4	0.00	0.00	
9,300.0	0.00	0.00	8,821.1	2,438.2	466.3	2,482.4	0.00	0.00	
9,335.9	0.00	0.00	8,857.0	2,438.2	466.3	2,482.4	0.00	0.00	TD @ 9,335.9' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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 22A-36 BHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,857.0	2,438.2	466.3	611,793.74	1,246,188.10	39.482758	-108.171006
PUCKETT 22A-36 TGT - plan hits target center - Point	0.00	0.00	6,999.0	2,438.2	466.3	611,793.74	1,246,188.10	39.482758	-108.171006

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,228.0	5,807.0	OHIO CREEK				
6,545.7	6,100.0	WILLIAMS FORK				
7,477.9	6,999.0	TOP of GAS				
9,185.9	8,707.0	ROLLINS				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
275.0	275.0	0.0	0.0	KOP @ 275'
475.0	474.6	9.7	-3.9	End Nudge
1,075.5	1,054.9	153.8	7.3	EOB @ 22.74° INC
6,720.0	6,260.8	2,292.7	437.1	Start 3° Drop
7,477.9	6,999.0	2,438.2	466.3	EOD @ 0° INC
9,335.9	8,857.0	2,438.2	466.3	TD @ 9,335.9' MD

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 22A-36

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 22A-36
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 22A-36	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	9,335.9	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
Puckett 241-1						
Puckett 241-1 - STK - Plan #1						Out of range
S1-T7S-R97W (Mesa E1 797)						
PUCKETT 11B-1 - DD - Plan #1	356.7	356.8	5.8	4.4	4.296	CC, ES
PUCKETT 11B-1 - DD - Plan #1	500.0	499.8	8.0	5.9	3.779	SF
PUCKETT 11C-1 - DD - Plan #1	200.0	200.0	15.3	14.7	24.334	CC
PUCKETT 11C-1 - DD - Plan #1	300.0	300.0	15.4	14.3	14.259	ES
PUCKETT 11C-1 - DD - Plan #1	600.0	601.7	22.4	19.7	8.250	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	31.6	30.9	50.156	CC, ES
PUCKETT 13B-1 - DD - Plan #1	400.0	395.7	44.5	42.9	27.999	SF
PUCKETT 21A-1 - HZ - Plan #1	536.5	535.9	6.8	4.6	3.062	CC
PUCKETT 21A-1 - HZ - Plan #1	600.0	599.2	7.1	4.5	2.742	ES
PUCKETT 21A-1 - HZ - Plan #1	700.0	698.9	8.6	5.4	2.681	SF
PUCKETT 21C-1 - DD - Plan #1	452.4	451.7	13.9	12.1	7.726	CC, ES
PUCKETT 21C-1 - DD - Plan #1	700.0	697.6	18.3	15.2	5.854	SF
PUCKETT 21D-1 - DD - Plan #1	470.6	469.6	20.4	18.5	10.845	CC, ES
PUCKETT 21D-1 - DD - Plan #1	600.0	597.2	24.8	22.3	9.904	SF
PUCKETT 22C-1 - DD - Plan #1	441.3	441.1	24.8	23.0	14.380	CC, ES
PUCKETT 22C-1 - DD - Plan #1	600.0	598.6	29.2	26.7	11.511	SF
PUCKETT 22D-1 - DD - Plan #1	200.0	200.0	12.6	11.9	19.946	CC
PUCKETT 22D-1 - DD - Plan #1	300.0	300.0	12.6	11.5	11.671	ES
PUCKETT 22D-1 - DD - Plan #1	400.0	399.9	14.1	12.5	9.070	SF
PUCKETT 23A-1 - DD - Plan #1	200.0	200.0	18.2	17.6	28.958	CC
PUCKETT 23A-1 - DD - Plan #1	300.0	300.0	18.4	17.3	16.954	ES
PUCKETT 23A-1 - DD - Plan #1	400.0	399.9	22.1	20.5	13.636	SF
PUCKETT 23B-1 - DD - Plan #1	200.0	200.0	25.7	25.1	40.826	CC
PUCKETT 23B-1 - DD - Plan #1	300.0	300.0	25.8	24.8	23.850	ES
PUCKETT 23B-1 - DD - Plan #1	500.0	497.9	39.8	37.6	18.198	SF
PUCKETT 23C-1 - DD - Plan #1	200.0	200.0	23.6	23.0	37.500	CC
PUCKETT 23C-1 - DD - Plan #1	300.0	300.0	23.7	22.6	21.925	ES
PUCKETT 23C-1 - DD - Plan #1	400.0	398.5	28.9	27.3	18.404	SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	40.3	39.7	64.092	CC, ES
PUCKETT 31B-1 - DD - Plan #1	1,200.0	1,154.2	189.0	180.7	22.796	SF
PUCKETT 31C-1 - DD - Plan #1	213.2	213.2	32.4	31.7	46.986	CC, ES
PUCKETT 31C-1 - DD - Plan #1	500.0	494.8	41.9	39.9	20.639	SF
PUCKETT 32A-1 - DD - Plan #1	200.0	200.0	41.3	40.7	65.700	CC, ES
PUCKETT 32A-1 - DD - Plan #1	500.0	492.6	56.4	54.3	27.804	SF
PUCKETT 32C-1 - DD - Plan #1	325.2	324.9	33.5	32.3	28.129	CC, ES
PUCKETT 32C-1 - DD - Plan #1	500.0	495.8	40.8	38.8	20.423	SF
PUCKETT 33A-1 - DD - Plan #1	330.7	330.6	18.7	17.4	15.339	CC, ES
PUCKETT 33A-1 - DD - Plan #1	400.0	399.3	19.9	18.4	13.080	SF
PUCKETT 33C-1 - DD - Plan #1	200.0	200.0	9.4	8.7	14.892	CC
PUCKETT 33C-1 - DD - Plan #1	235.9	235.9	9.4	8.6	11.921	ES
PUCKETT 33C-1 - DD - Plan #1	300.0	299.7	10.1	9.1	9.435	SF
PUCKETT 34A-1 - DD - Plan #1	200.0	200.0	12.2	11.5	19.344	CC
PUCKETT 34A-1 - DD - Plan #1	300.0	300.0	12.3	11.3	11.374	ES
PUCKETT 34A-1 - DD - Plan #1	400.0	399.9	16.3	14.6	9.988	SF
PUCKETT SWD E1-797 - VH - Plan #1	200.0	200.0	33.2	32.6	52.729	CC
PUCKETT SWD E1-797 - VH - Plan #1	300.0	300.0	33.3	32.2	30.771	ES
PUCKETT SWD E1-797 - VH - Plan #1	500.0	499.5	44.8	42.6	20.493	SF

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

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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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 11B-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +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	-147.47	-6.2	-4.0	7.3					
100.0	100.0	100.0	100.0	0.1	0.1	-147.47	-6.2	-4.0	7.3	7.2	0.18	40.873		
200.0	200.0	200.0	200.0	0.3	0.3	-147.47	-6.2	-4.0	7.3	6.7	0.63	11.678		
300.0	300.0	300.2	300.1	0.5	0.5	-107.04	-3.7	-4.8	6.2	5.1	1.08	5.706		
356.7	356.7	356.8	356.7	0.7	0.7	-85.82	-0.1	-6.2	5.8	4.4	1.34	4.296 CC, ES		
400.0	399.9	400.1	399.7	0.8	0.8	-69.34	3.6	-7.5	6.0	4.5	1.56	3.862		
500.0	499.5	499.8	498.6	1.0	1.1	-45.45	15.9	-12.0	8.0	5.9	2.13	3.779 SF		
600.0	598.6	599.2	596.3	1.3	1.4	-49.87	32.9	-18.2	13.3	10.6	2.68	4.939		
700.0	696.9	698.1	692.5	1.6	1.8	-58.96	54.5	-26.0	21.6	18.3	3.31	6.524		
800.0	794.2	796.8	787.2	2.0	2.4	-67.41	80.5	-35.5	32.9	28.9	4.08	8.073		
900.0	890.3	895.9	881.9	2.5	2.9	-77.55	107.8	-45.4	45.2	40.1	5.06	8.936		
1,000.0	984.8	994.6	976.3	3.1	3.5	-88.61	135.0	-55.3	58.7	52.4	6.26	9.379		
1,100.0	1,077.5	1,092.6	1,070.0	3.7	4.0	-98.99	162.1	-65.2	74.7	67.1	7.58	9.857		
1,200.0	1,169.8	1,190.5	1,163.6	4.4	4.6	-105.96	189.0	-75.0	92.7	83.9	8.87	10.451		
1,300.0	1,262.0	1,288.3	1,257.1	5.2	5.2	-110.64	216.0	-84.8	111.6	101.5	10.11	11.044		
1,400.0	1,354.2	1,386.2	1,350.7	5.9	5.7	-113.95	242.9	-94.6	131.1	119.8	11.31	11.586		
1,500.0	1,446.5	1,484.1	1,444.2	6.6	6.3	-116.40	269.9	-104.4	150.8	138.3	12.50	12.067		
1,600.0	1,538.7	1,581.9	1,537.8	7.3	6.9	-118.29	296.9	-114.2	170.8	157.1	13.67	12.490		
1,700.0	1,630.9	1,679.8	1,631.3	8.1	7.4	-119.78	323.8	-124.1	190.9	176.0	14.84	12.862		

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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 22A-36	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	-148.93	-13.1	-7.9	15.3					
100.0	100.0	100.0	100.0	0.1	0.1	-148.93	-13.1	-7.9	15.3	15.1	0.18	85.168		
200.0	200.0	200.0	200.0	0.3	0.3	-148.93	-13.1	-7.9	15.3	14.7	0.63	24.334	CC	
255.6	255.6	255.6	255.6	0.4	0.4	-127.53	-13.1	-7.9	15.4	14.6	0.88	17.537		
300.0	300.0	300.0	300.0	0.5	0.5	-127.41	-13.1	-7.9	15.4	14.3	1.08	14.259	ES	
400.0	399.9	400.4	400.4	0.8	0.8	-133.82	-11.8	-8.5	17.1	15.5	1.58	10.823		
500.0	499.5	501.0	500.8	1.0	1.0	-142.98	-5.7	-11.3	19.2	17.0	2.13	9.010		
600.0	598.6	601.7	600.7	1.3	1.3	-151.24	5.1	-16.2	22.4	19.7	2.72	8.250	SF	
700.0	696.9	702.2	699.8	1.6	1.6	-147.51	20.7	-23.3	27.9	24.5	3.36	8.292		
800.0	794.2	802.3	797.4	2.0	2.0	-139.99	40.9	-32.4	36.7	32.6	4.11	8.942		
900.0	890.3	901.2	893.4	2.5	2.4	-136.55	62.5	-42.3	50.4	45.5	4.97	10.158		
1,000.0	984.8	999.5	988.8	3.1	2.9	-137.20	84.0	-52.0	68.9	63.0	5.88	11.710		
1,100.0	1,077.5	1,096.9	1,083.3	3.7	3.3	-139.18	105.3	-61.7	91.6	84.8	6.80	13.469		
1,200.0	1,169.8	1,193.9	1,177.5	4.4	3.8	-140.24	126.6	-71.4	115.6	107.9	7.69	15.038		
1,300.0	1,262.0	1,291.0	1,271.7	5.2	4.3	-140.93	147.8	-81.0	139.6	131.0	8.59	16.253		
1,400.0	1,354.2	1,388.1	1,365.9	5.9	4.7	-141.42	169.1	-90.7	163.6	154.1	9.51	17.215		
1,500.0	1,446.5	1,485.1	1,460.1	6.6	5.2	-141.78	190.3	-100.3	187.7	177.2	10.43	17.992		

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Reference Well:	PUCKETT 22A-36	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							
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	-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	175.546		
200.0	200.0	200.0	200.0	0.3	0.3	-149.95	-27.3	-15.8	31.6	30.9	0.63	50.156 CC, ES		
300.0	300.0	298.3	298.3	0.5	0.5	-128.68	-29.7	-16.8	34.2	33.2	1.07	32.101		
400.0	399.9	395.7	395.4	0.8	0.7	-133.46	-36.6	-19.7	44.5	42.9	1.59	27.999 SF		
500.0	499.5	491.0	489.8	1.0	1.0	-143.74	-47.7	-24.3	63.8	61.6	2.20	29.004		
600.0	598.6	582.8	580.2	1.3	1.3	-158.86	-62.6	-30.5	93.0	90.2	2.86	32.496		
700.0	696.9	670.4	665.7	1.6	1.7	-166.58	-80.5	-38.0	131.6	128.1	3.53	37.288		
800.0	794.2	759.7	752.3	2.0	2.1	-171.06	-100.3	-46.3	176.6	172.5	4.15	42.571		

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Reference Well:	PUCKETT 22A-36	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	29.75	6.9	4.0	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	29.75	6.9	4.0	8.0	7.8	0.18	44.298		
200.0	200.0	200.0	200.0	0.3	0.3	29.75	6.9	4.0	8.0	7.3	0.63	12.657		
300.0	300.0	300.0	300.0	0.5	0.5	52.68	6.9	4.0	7.9	6.8	1.08	7.277		
400.0	399.9	399.8	399.7	0.8	0.8	61.46	9.4	3.1	7.2	5.7	1.55	4.661		
500.0	499.5	499.6	499.2	1.0	1.0	67.48	16.7	0.5	6.9	4.9	2.04	3.388		
536.5	535.7	535.9	535.3	1.1	1.1	66.83	20.5	-0.4	6.8	4.6	2.24	3.062 CC		
600.0	598.6	599.2	598.1	1.3	1.3	70.69	28.5	-0.9	7.1	4.5	2.58	2.742 ES		
700.0	696.9	698.9	696.5	1.6	1.6	82.44	44.6	0.7	8.6	5.4	3.20	2.681 SF		
800.0	794.2	798.5	793.9	2.0	1.9	92.47	64.9	5.1	11.7	7.7	3.95	2.962		
900.0	890.3	898.1	890.2	2.5	2.4	98.43	89.4	12.4	16.3	11.5	4.85	3.363		
1,000.0	984.8	997.7	985.1	3.1	2.9	101.90	117.9	22.5	22.2	16.3	5.90	3.757		
1,100.0	1,077.5	1,097.4	1,079.5	3.7	3.5	110.84	147.7	33.5	28.9	21.9	6.96	4.153		
1,200.0	1,169.8	1,197.0	1,174.0	4.4	4.1	119.32	177.4	44.5	36.6	28.7	7.93	4.619		
1,300.0	1,262.0	1,296.6	1,268.4	5.2	4.6	124.77	207.1	55.5	44.9	36.0	8.87	5.059		
1,400.0	1,354.2	1,396.2	1,362.8	5.9	5.2	128.50	236.8	66.4	53.4	43.6	9.80	5.447		
1,500.0	1,446.5	1,495.7	1,457.2	6.6	5.9	131.20	266.5	77.4	62.1	51.4	10.74	5.784		
1,600.0	1,538.7	1,595.3	1,551.6	7.3	6.5	133.24	296.3	88.4	70.9	59.2	11.67	6.075		
1,700.0	1,630.9	1,694.9	1,646.0	8.1	7.1	134.82	326.0	99.4	79.8	67.1	12.61	6.326		
1,800.0	1,723.1	1,794.5	1,740.4	8.8	7.7	136.09	355.7	110.3	88.7	75.1	13.55	6.544		
1,900.0	1,815.4	1,894.1	1,834.8	9.5	8.3	137.12	385.4	121.3	97.6	83.1	14.50	6.734		
2,000.0	1,907.6	1,993.7	1,929.2	10.3	8.9	137.98	415.1	132.3	106.6	91.1	15.44	6.901		
2,100.0	1,999.8	2,093.3	2,023.7	11.0	9.5	138.71	444.9	143.3	115.6	99.2	16.40	7.050		
2,200.0	2,092.1	2,192.8	2,118.1	11.8	10.2	139.33	474.6	154.2	124.6	107.2	17.35	7.181		
2,300.0	2,184.3	2,292.4	2,212.5	12.5	10.8	139.87	504.3	165.2	133.6	115.3	18.31	7.299		
2,400.0	2,276.5	2,392.0	2,306.9	13.2	11.4	140.34	534.0	176.2	142.6	123.4	19.26	7.405		
2,500.0	2,368.7	2,491.6	2,401.3	14.0	12.0	140.75	563.7	187.1	151.7	131.5	20.22	7.501		
2,600.0	2,461.0	2,591.2	2,495.7	14.7	12.6	141.12	593.5	198.1	160.7	139.6	21.18	7.588		
2,700.0	2,553.2	2,690.8	2,590.1	15.5	13.3	141.45	623.2	209.1	169.8	147.6	22.15	7.667		
2,800.0	2,645.4	2,790.3	2,684.5	16.2	13.9	141.74	652.9	220.1	178.9	155.7	23.11	7.739		
2,900.0	2,737.7	2,889.9	2,779.0	16.9	14.5	142.01	682.6	231.0	187.9	163.8	24.07	7.806		
3,000.0	2,829.9	2,989.5	2,873.4	17.7	15.1	142.25	712.3	242.0	197.0	171.9	25.04	7.867		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	28.22	14.2	7.6	16.1					
100.0	100.0	100.0	100.0	0.1	0.1	28.22	14.2	7.6	16.1	15.9	0.18	89.629		
200.0	200.0	200.0	200.0	0.3	0.3	28.22	14.2	7.6	16.1	15.5	0.63	25.608		
300.0	300.0	300.0	300.0	0.5	0.5	50.68	14.2	7.6	16.0	14.9	1.08	14.813		
400.0	399.9	399.7	399.6	0.8	0.8	61.45	14.8	7.6	14.3	12.8	1.55	9.239		
452.4	452.1	451.7	451.7	0.9	0.9	67.08	16.9	7.4	13.9	12.1	1.80	7.726 CC, ES		
500.0	499.5	499.1	499.0	1.0	1.0	74.49	20.0	7.1	14.2	12.2	2.01	7.073		
600.0	598.6	598.5	597.8	1.3	1.2	78.31	30.0	7.1	15.1	12.5	2.53	5.951		
700.0	696.9	697.6	695.9	1.6	1.5	88.53	43.6	10.4	18.3	15.2	3.13	5.854 SF		
800.0	794.2	796.6	793.2	2.0	1.8	97.36	60.9	17.4	24.5	20.7	3.86	6.368		
900.0	890.3	895.9	890.0	2.5	2.2	105.02	80.8	27.0	33.0	28.3	4.70	7.019		
1,000.0	984.8	995.1	986.6	3.1	2.6	115.62	100.8	36.7	43.1	37.5	5.58	7.728		
1,100.0	1,077.5	1,093.6	1,082.6	3.7	3.1	126.72	120.7	46.4	56.6	50.2	6.40	8.846		
1,200.0	1,169.8	1,191.8	1,178.3	4.4	3.5	135.21	140.6	56.0	72.5	65.4	7.11	10.195		
1,300.0	1,262.0	1,290.1	1,274.1	5.2	3.9	140.59	160.4	65.7	89.4	81.6	7.80	11.466		
1,400.0	1,354.2	1,388.4	1,369.9	5.9	4.4	144.25	180.3	75.3	106.9	98.4	8.48	12.597		
1,500.0	1,446.5	1,486.7	1,465.6	6.6	4.8	146.87	200.2	84.9	124.6	115.4	9.17	13.590		
1,600.0	1,538.7	1,584.9	1,561.4	7.3	5.3	148.84	220.0	94.6	142.5	132.7	9.86	14.457		
1,700.0	1,630.9	1,683.2	1,657.2	8.1	5.7	150.37	239.9	104.2	160.6	150.0	10.56	15.214		
1,800.0	1,723.1	1,781.5	1,752.9	8.8	6.2	151.59	259.7	113.9	178.8	167.5	11.26	15.878		
1,900.0	1,815.4	1,879.8	1,848.7	9.5	6.6	152.58	279.6	123.5	197.0	185.0	11.96	16.464		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 21D-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	28.72	21.1	11.6	24.1					
100.0	100.0	100.0	100.0	0.1	0.1	28.72	21.1	11.6	24.1	23.9	0.18	133.939		
200.0	200.0	200.0	200.0	0.3	0.3	28.72	21.1	11.6	24.1	23.5	0.63	38.268		
300.0	300.0	300.0	300.0	0.5	0.5	51.03	21.1	11.6	24.0	22.9	1.08	22.185		
400.0	399.9	399.9	399.9	0.8	0.8	59.15	21.1	11.6	21.7	20.2	1.55	13.973		
470.6	470.3	469.6	469.6	1.0	0.9	68.97	22.2	12.3	20.4	18.5	1.88	10.845 CC, ES		
500.0	499.5	498.6	498.5	1.0	1.0	75.60	23.3	13.0	20.9	18.9	2.01	10.434		
600.0	598.6	597.2	596.8	1.3	1.2	85.45	29.7	17.1	24.8	22.3	2.50	9.904 SF		
700.0	696.9	695.8	694.6	1.6	1.5	94.01	40.3	24.0	32.1	29.0	3.09	10.378		
800.0	794.2	794.7	791.9	2.0	1.8	99.82	55.0	33.5	41.6	37.8	3.80	10.963		
900.0	890.3	893.7	889.2	2.5	2.1	107.64	70.5	43.5	52.3	47.7	4.61	11.355		
1,000.0	984.8	992.1	985.9	3.1	2.5	116.82	86.0	53.5	65.4	60.0	5.47	11.958		
1,100.0	1,077.5	1,089.7	1,081.8	3.7	2.9	126.08	101.3	63.4	82.3	76.0	6.31	13.038		
1,200.0	1,169.8	1,187.1	1,177.4	4.4	3.2	133.75	116.6	73.3	101.8	94.7	7.06	14.419		
1,300.0	1,262.0	1,284.4	1,273.0	5.2	3.6	138.93	131.9	83.1	122.5	114.8	7.77	15.773		
1,400.0	1,354.2	1,381.7	1,368.6	5.9	4.0	142.60	147.2	93.0	143.9	135.5	8.46	17.012		
1,500.0	1,446.5	1,479.1	1,464.2	6.6	4.4	145.31	162.5	102.9	165.8	156.6	9.15	18.119		
1,600.0	1,538.7	1,576.4	1,559.9	7.3	4.8	147.40	177.7	112.8	187.9	178.0	9.84	19.100		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 22C-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	51.75	16.0	20.3	25.9					
100.0	100.0	100.0	100.0	0.1	0.1	51.75	16.0	20.3	25.9	25.7	0.18	143.928		
200.0	200.0	200.0	200.0	0.3	0.3	51.75	16.0	20.3	25.9	25.3	0.63	41.122		
300.0	300.0	300.0	300.0	0.5	0.5	74.10	16.0	20.3	25.8	24.8	1.08	23.943		
400.0	399.9	399.9	399.9	0.8	0.8	82.79	16.0	20.3	25.0	23.5	1.53	16.367		
441.3	441.1	441.1	441.1	0.9	0.9	87.44	16.0	20.3	24.8	23.0	1.72	14.380 CC, ES		
500.0	499.5	499.5	499.5	1.0	1.0	98.96	16.0	20.3	25.4	23.4	2.00	12.715		
600.0	598.6	598.6	598.6	1.3	1.2	114.32	16.0	20.3	29.2	26.7	2.54	11.511 SF		
700.0	696.9	695.3	695.3	1.6	1.4	130.18	15.9	22.7	41.4	38.2	3.16	13.095		
800.0	794.2	792.4	792.2	2.0	1.6	139.36	15.7	28.0	61.6	57.8	3.79	16.239		
900.0	890.3	888.4	888.1	2.5	1.8	145.56	15.4	33.2	86.8	82.4	4.42	19.639		
1,000.0	984.8	983.0	982.5	3.1	2.0	149.94	15.2	38.4	117.1	112.0	5.06	23.154		
1,100.0	1,077.5	1,075.9	1,075.3	3.7	2.3	153.63	14.9	43.5	152.1	146.4	5.66	26.844		
1,200.0	1,169.8	1,168.3	1,167.5	4.4	2.5	157.23	14.7	48.6	189.0	182.8	6.18	30.563		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 22D-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	81.68	1.8	12.4	12.6					
100.0	100.0	100.0	100.0	0.1	0.1	81.68	1.8	12.4	12.6	12.4	0.18	69.810		
200.0	200.0	200.0	200.0	0.3	0.3	81.68	1.8	12.4	12.6	11.9	0.63	19.946 CC		
255.9	255.9	255.9	255.9	0.4	0.4	104.58	1.8	12.4	12.6	11.7	0.88	14.310		
300.0	300.0	300.0	300.0	0.5	0.5	104.40	1.8	12.4	12.6	11.5	1.08	11.671 ES		
400.0	399.9	399.9	399.9	0.8	0.8	120.00	1.8	12.4	14.1	12.5	1.55	9.070 SF		
500.0	499.5	499.5	499.5	1.0	1.0	138.52	1.8	12.4	20.2	18.1	2.11	9.548		
600.0	598.6	597.1	597.0	1.3	1.2	143.24	0.9	14.7	33.1	30.5	2.66	12.444		
700.0	696.9	692.7	692.4	1.6	1.4	145.09	-2.0	21.4	54.4	51.2	3.24	16.784		
800.0	794.2	787.7	786.8	2.0	1.6	145.61	-6.2	31.4	82.4	78.5	3.85	21.413		
900.0	890.3	882.2	880.6	2.5	1.9	146.71	-10.5	41.5	114.2	109.8	4.46	25.612		
1,000.0	984.8	975.2	972.9	3.1	2.1	148.03	-14.7	51.5	150.0	144.9	5.10	29.403		
1,100.0	1,077.5	1,066.4	1,063.6	3.7	2.4	149.83	-18.9	61.3	189.8	184.0	5.74	33.059		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 23A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	178.22	-18.2	0.6	18.2					
100.0	100.0	100.0	100.0	0.1	0.1	178.22	-18.2	0.6	18.2	18.0	0.18	101.355		
200.0	200.0	200.0	200.0	0.3	0.3	178.22	-18.2	0.6	18.2	17.6	0.63	28.958 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-159.99	-18.2	0.6	18.4	17.5	0.88	20.898		
300.0	300.0	300.0	300.0	0.5	0.5	-159.95	-18.2	0.6	18.4	17.3	1.08	16.954 ES		
400.0	399.9	399.9	399.9	0.8	0.8	-163.41	-18.2	0.6	22.1	20.5	1.62	13.636 SF		
500.0	499.5	499.5	499.5	1.0	1.0	-172.51	-18.2	0.6	31.0	28.8	2.20	14.059		
600.0	598.6	596.6	596.6	1.3	1.2	173.42	-19.9	2.3	46.6	43.8	2.76	16.880		
700.0	696.9	691.3	691.0	1.6	1.4	165.75	-24.9	7.4	70.6	67.2	3.33	21.209		
800.0	794.2	782.5	781.5	2.0	1.6	161.07	-32.8	15.5	102.6	98.7	3.91	26.225		
900.0	890.3	870.4	868.1	2.5	1.9	157.87	-43.2	26.1	142.3	137.7	4.52	31.457		
1,000.0	984.8	959.8	956.0	3.1	2.2	155.97	-54.8	38.0	187.0	181.9	5.13	36.438		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 23B-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-173.06	-25.5	-3.1	25.7					
100.0	100.0	100.0	100.0	0.1	0.1	-173.06	-25.5	-3.1	25.7	25.5	0.18	142.891		
200.0	200.0	200.0	200.0	0.3	0.3	-173.06	-25.5	-3.1	25.7	25.1	0.63	40.826 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-151.27	-25.5	-3.1	25.9	25.0	0.88	29.368		
300.0	300.0	300.0	300.0	0.5	0.5	-151.23	-25.5	-3.1	25.8	24.8	1.08	23.850 ES		
400.0	399.9	399.9	399.9	0.8	0.8	-154.88	-25.5	-3.1	29.3	27.7	1.61	18.199		
500.0	499.5	497.9	497.9	1.0	1.0	-167.29	-27.4	-1.4	39.8	37.6	2.19	18.198 SF		
600.0	598.6	593.7	593.4	1.3	1.2	174.91	-32.8	3.5	59.6	56.8	2.77	21.520		
700.0	696.9	686.4	685.4	1.6	1.4	165.53	-41.5	11.2	88.1	84.7	3.36	26.236		
800.0	794.2	775.2	772.8	2.0	1.7	160.07	-52.9	21.4	124.5	120.6	3.95	31.521		
900.0	890.3	859.3	854.9	2.5	2.0	156.51	-66.4	33.6	168.5	164.0	4.56	36.930		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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				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	-149.84	-20.4	-11.9	23.6					
100.0	100.0	100.0	100.0	0.1	0.1	-149.84	-20.4	-11.9	23.6	23.4	0.18	131.249		
200.0	200.0	200.0	200.0	0.3	0.3	-149.84	-20.4	-11.9	23.6	23.0	0.63	37.500 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-128.23	-20.4	-11.9	23.7	22.8	0.88	26.956		
300.0	300.0	300.0	300.0	0.5	0.5	-128.15	-20.4	-11.9	23.7	22.6	1.08	21.925 ES		
400.0	399.9	398.5	398.4	0.8	0.7	-134.97	-22.8	-12.7	28.9	27.3	1.57	18.404 SF		
500.0	499.5	495.4	495.1	1.0	0.9	-148.06	-29.8	-15.3	43.6	41.4	2.16	20.160		
600.0	598.6	590.1	589.1	1.3	1.2	-164.40	-40.9	-18.6	68.1	65.3	2.81	24.255		
700.0	696.9	681.7	679.5	1.6	1.5	-174.27	-55.2	-19.3	101.1	97.7	3.43	29.512		
800.0	794.2	768.9	765.0	2.0	1.8	179.10	-71.9	-17.3	142.0	137.9	4.03	35.226		
900.0	890.3	854.3	848.3	2.5	2.1	174.40	-90.7	-13.4	189.9	185.3	4.62	41.111		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 31B-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	28.87	35.3	19.5	40.3					
100.0	100.0	100.0	100.0	0.1	0.1	28.87	35.3	19.5	40.3	40.2	0.18	224.320		
200.0	200.0	200.0	200.0	0.3	0.3	28.87	35.3	19.5	40.3	39.7	0.63	64.092 CC, ES		
300.0	300.0	298.0	298.0	0.5	0.5	52.42	36.8	21.5	42.6	41.5	1.08	39.464		
400.0	399.9	395.6	395.2	0.8	0.8	59.47	41.3	27.5	47.7	46.1	1.56	30.505		
500.0	499.5	492.1	490.9	1.0	1.0	65.93	48.7	37.3	56.4	54.3	2.06	27.322		
600.0	598.6	587.5	584.9	1.3	1.4	64.40	58.8	50.9	68.4	65.7	2.61	26.208		
700.0	696.9	682.0	676.9	1.6	1.8	66.45	71.5	68.0	83.2	80.0	3.22	25.845		
800.0	794.2	775.5	766.8	2.0	2.3	69.38	86.8	88.4	100.8	96.9	3.93	25.634		
900.0	890.3	867.9	854.3	2.5	2.8	72.26	104.4	112.1	121.2	116.4	4.78	25.325		
1,000.0	984.8	961.5	941.6	3.1	3.4	75.04	124.7	139.2	143.8	138.0	5.80	24.793		
1,100.0	1,077.5	1,057.9	1,031.3	3.7	4.1	78.89	145.9	167.7	166.0	159.0	6.99	23.739		
1,200.0	1,169.8	1,154.2	1,120.8	4.4	4.8	83.46	167.1	196.1	189.0	180.7	8.29	22.796 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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	28.66	28.4	15.5	32.4					
100.0	100.0	100.0	100.0	0.1	0.1	28.66	28.4	15.5	32.4	32.2	0.18	180.007		
200.0	200.0	200.0	200.0	0.3	0.3	28.66	28.4	15.5	32.4	31.7	0.63	51.430		
213.2	213.2	213.2	213.2	0.3	0.3	50.68	28.4	15.5	32.4	31.7	0.69	46.986 CC, ES		
300.0	300.0	299.3	299.3	0.5	0.5	51.42	28.7	16.1	32.8	31.8	1.08	30.472		
400.0	399.9	397.5	397.3	0.8	0.8	60.22	31.4	20.4	35.3	33.8	1.55	22.849		
500.0	499.5	494.8	494.1	1.0	1.0	70.88	36.7	28.8	41.9	39.9	2.03	20.639 SF		
600.0	598.6	591.1	589.3	1.3	1.3	72.96	44.4	41.3	53.0	50.4	2.56	20.664		
700.0	696.9	686.4	682.6	1.6	1.7	77.17	54.6	57.7	68.0	64.8	3.17	21.464		
800.0	794.2	780.5	773.7	2.0	2.1	81.10	67.0	77.7	86.6	82.8	3.88	22.310		
900.0	890.3	873.5	862.5	2.5	2.6	84.25	81.6	101.2	108.7	104.0	4.74	22.934		
1,000.0	984.8	965.8	949.1	3.1	3.2	86.72	98.3	128.1	133.9	128.2	5.75	23.295		
1,100.0	1,077.5	1,061.4	1,038.4	3.7	3.8	90.00	116.5	157.4	160.2	153.3	6.94	23.102		
1,200.0	1,169.8	1,157.0	1,127.6	4.4	4.5	94.05	134.7	186.6	187.1	178.9	8.20	22.825		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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-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	43.06	30.2	28.2	41.3					
100.0	100.0	100.0	100.0	0.1	0.1	43.06	30.2	28.2	41.3	41.2	0.18	229.951		
200.0	200.0	200.0	200.0	0.3	0.3	43.06	30.2	28.2	41.3	40.7	0.63	65.700	CC, ES	
300.0	300.0	298.7	298.6	0.5	0.5	66.34	30.5	29.6	42.5	41.4	1.07	39.585		
400.0	399.9	396.3	396.1	0.8	0.8	74.81	31.8	35.7	46.8	45.2	1.53	30.516		
500.0	499.5	492.6	491.8	1.0	1.0	83.62	34.1	46.5	56.4	54.3	2.03	27.804	SF	
600.0	598.6	587.3	585.1	1.3	1.3	84.19	37.3	61.7	71.3	68.8	2.56	27.852		
700.0	696.9	680.2	675.9	1.6	1.7	87.56	41.4	81.0	91.4	88.2	3.16	28.936		
800.0	794.2	771.1	763.6	2.0	2.1	91.01	46.2	104.1	116.5	112.6	3.85	30.257		
900.0	890.3	861.2	849.5	2.5	2.7	93.95	51.9	130.8	146.3	141.6	4.66	31.366		
1,000.0	984.8	954.6	938.2	3.1	3.2	97.06	58.0	159.7	178.0	172.4	5.59	31.868		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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-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	46.17	23.3	24.3	33.7				
100.0	100.0	100.0	100.0	0.1	0.1	46.17	23.3	24.3	33.7	33.5	0.18	187.139	
200.0	200.0	200.0	200.0	0.3	0.3	46.17	23.3	24.3	33.7	33.0	0.63	53.468	
300.0	300.0	300.0	300.0	0.5	0.5	68.43	23.3	24.3	33.6	32.5	1.08	31.119	
325.2	325.2	324.9	324.9	0.6	0.6	69.41	23.3	24.4	33.5	32.3	1.19	28.129 CC, ES	
400.0	399.9	398.5	398.5	0.8	0.8	77.47	23.2	26.8	34.4	32.9	1.52	22.612	
500.0	499.5	495.8	495.5	1.0	1.0	91.62	22.9	34.3	40.8	38.8	2.00	20.423 SF	
600.0	598.6	591.4	590.3	1.3	1.2	97.35	22.4	46.4	54.5	52.0	2.53	21.543	
700.0	696.9	684.9	682.3	1.6	1.5	103.46	21.8	62.9	75.5	72.4	3.13	24.126	
800.0	794.2	775.9	771.0	2.0	1.9	107.78	21.0	83.2	103.3	99.5	3.81	27.135	
900.0	890.3	864.1	855.9	2.5	2.4	110.53	20.1	106.9	137.1	132.5	4.57	30.025	
1,000.0	984.8	953.4	941.0	3.1	2.9	112.58	19.1	134.0	175.6	170.2	5.42	32.407	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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						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	60.94	9.1	16.4	18.7					
100.0	100.0	100.0	100.0	0.1	0.1	60.94	9.1	16.4	18.7	18.6	0.18	104.164		
200.0	200.0	200.0	200.0	0.3	0.3	60.94	9.1	16.4	18.7	18.1	0.63	29.761		
300.0	300.0	300.0	300.0	0.5	0.5	83.44	9.1	16.4	18.7	17.6	1.08	17.346		
330.7	330.7	330.6	330.6	0.6	0.6	85.44	9.1	16.4	18.7	17.4	1.22	15.339 CC, ES		
400.0	399.9	399.3	399.3	0.8	0.8	97.77	8.6	17.7	19.9	18.4	1.52	13.080 SF		
500.0	499.5	497.1	496.9	1.0	1.0	118.08	6.6	23.7	29.2	27.2	2.04	14.294		
600.0	598.6	592.9	592.0	1.3	1.2	122.66	3.0	34.1	47.6	45.0	2.61	18.280		
700.0	696.9	686.0	683.8	1.6	1.5	125.47	-1.9	48.6	73.7	70.5	3.21	22.977		
800.0	794.2	776.0	771.8	2.0	1.9	126.87	-8.0	66.5	106.8	102.9	3.86	27.690		
900.0	890.3	862.3	855.3	2.5	2.3	127.43	-15.2	87.4	146.3	141.7	4.56	32.095		
1,000.0	984.8	944.7	933.9	3.1	2.7	127.46	-23.1	110.7	191.7	186.4	5.32	36.046		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	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	115.37	-4.0	8.5	9.4					
100.0	100.0	100.0	100.0	0.1	0.1	115.37	-4.0	8.5	9.4	9.2	0.18	52.124		
200.0	200.0	200.0	200.0	0.3	0.3	115.37	-4.0	8.5	9.4	8.7	0.63	14.892 CC		
235.9	235.9	235.9	235.9	0.4	0.4	137.72	-4.0	8.5	9.4	8.6	0.79	11.921 ES		
300.0	300.0	299.7	299.7	0.5	0.5	138.48	-4.4	9.0	10.1	9.1	1.07	9.435 SF		
400.0	399.9	398.6	398.5	0.8	0.7	148.30	-7.2	13.3	18.5	16.9	1.60	11.554		
500.0	499.5	495.5	494.9	1.0	1.0	150.19	-12.7	21.6	36.7	34.5	2.20	16.701		
600.0	598.6	589.6	587.8	1.3	1.3	142.57	-20.5	33.7	62.6	59.9	2.75	22.774		
700.0	696.9	680.3	676.7	1.6	1.6	139.17	-30.5	48.8	95.6	92.2	3.34	28.623		
800.0	794.2	767.0	760.7	2.0	2.0	137.28	-42.2	66.6	135.3	131.3	3.96	34.131		
900.0	890.3	849.2	839.4	2.5	2.5	135.96	-55.2	86.4	181.4	176.8	4.63	39.210		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT 34A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	158.22	-11.3	4.5	12.2					
100.0	100.0	100.0	100.0	0.1	0.1	158.22	-11.3	4.5	12.2	12.0	0.18	67.703		
200.0	200.0	200.0	200.0	0.3	0.3	158.22	-11.3	4.5	12.2	11.5	0.63	19.344 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-179.78	-11.3	4.5	12.4	11.5	0.88	14.041		
300.0	300.0	300.0	300.0	0.5	0.5	-179.78	-11.3	4.5	12.3	11.3	1.08	11.374 ES		
400.0	399.9	399.9	399.9	0.8	0.8	-179.83	-11.3	4.5	16.3	14.6	1.63	9.988 SF		
500.0	499.5	498.2	498.2	1.0	1.0	173.55	-13.0	6.4	27.7	25.5	2.20	12.614		
600.0	598.6	594.4	594.1	1.3	1.2	161.46	-18.1	11.7	47.9	45.1	2.75	17.423		
700.0	696.9	687.6	686.5	1.6	1.4	155.78	-26.1	20.3	76.0	72.7	3.32	22.868		
800.0	794.2	776.9	774.5	2.0	1.7	152.53	-36.7	31.5	111.9	107.9	3.92	28.520		
900.0	890.3	861.8	857.3	2.5	2.0	150.29	-49.4	45.0	155.0	150.5	4.54	34.111		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 22A-36
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 22A-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S1-T7S-R97W (Mesa E1 797) - PUCKETT SWD E1-797 - VH - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-167.72	-32.4	-7.1	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	-167.72	-32.4	-7.1	33.2	33.0	0.18	184.552		
200.0	200.0	200.0	200.0	0.3	0.3	-167.72	-32.4	-7.1	33.2	32.6	0.63	52.729 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-145.92	-32.4	-7.1	33.4	32.5	0.88	37.869		
300.0	300.0	300.0	300.0	0.5	0.5	-145.88	-32.4	-7.1	33.3	32.2	1.08	30.771 ES		
400.0	399.9	399.9	399.9	0.8	0.8	-149.27	-32.4	-7.1	36.6	35.0	1.60	22.834		
500.0	499.5	499.5	499.5	1.0	1.0	-159.55	-32.4	-7.1	44.8	42.6	2.18	20.493 SF		
600.0	598.6	598.6	598.6	1.3	1.2	-174.70	-32.4	-7.1	58.0	55.3	2.77	20.927		
700.0	696.9	696.9	696.9	1.6	1.4	178.19	-32.4	-7.1	76.2	72.8	3.36	22.678		
800.0	794.2	794.2	794.2	2.0	1.7	174.86	-32.4	-7.1	99.1	95.1	3.94	25.110		
900.0	890.3	890.3	890.3	2.5	1.9	173.33	-32.4	-7.1	126.7	122.2	4.53	27.950		
1,000.0	984.8	984.8	984.8	3.1	2.1	172.67	-32.4	-7.1	159.1	154.0	5.12	31.060		
1,100.0	1,077.5	1,077.5	1,077.5	3.7	2.3	172.82	-32.4	-7.1	196.1	190.5	5.68	34.544		

Cathedral Energy Services

Anticollision Report

Company: Caerus Oil & Gas (NAD 27)
Project: Garfield County, CO
Reference Site: S1-T7S-R97W (Mesa E1 797)
Site Error: 0.0usft
Reference Well: PUCKETT 22A-36
Well Error: 0.0usft
Reference Wellbore: DD
Reference Design: Plan #1

Local Co-ordinate Reference: Well PUCKETT 22A-36
TVD Reference: KB=20' @ 8349.0usft (Patterson #303)
MD Reference: KB=20' @ 8349.0usft (Patterson #303)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
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 22A-36
 Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
 Grid Convergence at Surface is: -1.69°

