Piceance Energy, LLC

Mesa County, CO
Piceance 28-05
Piceance 28-06W

Slot B-3

Plan: Design #1

Standard Planning Report

29 April, 2015

Archer

Project: Mesa County, CO
Site: Piceance 28-05
Well: Piceance 28-06W
Wellbore: Slot B-3
Design: Design #1
Latitude: 39° 15' 3.990 N
Longitude: 107° 46' 46.570 W
Ground Level: 7556.0
Well @ 7578.0usft

Archer

PROJECT DETAILS: Mesa County, CO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Piceance 28-06W, True North
Vertical (TVD) Reference: Well @ 7578.0usft
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: Well @ 7578.0usft
Calculation Method: Minimum Curvature

WELL DETAILS: Piceance 28-06W

Ground Level: 7556.0

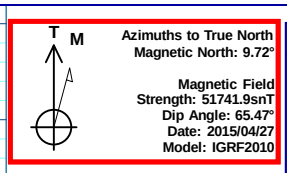
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1524449.36	2354524.56	39° 15' 3.990 N	107° 46' 46.570 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Piceance Federal 28-06W tgt	7858.0	171.0	-313.1	1524628.15	2354215.88	39° 15' 5.680 N	107° 46' 50.550 W	Circle (Radius: 50.0)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
630.8	4.62	298.64	630.5	4.5	-8.2	2.00	298.64	9.3	Start 4202.6 hold at 630.8 MD
4833.4	4.62	298.64	4819.5	166.5	-304.9	0.00	0.00	347.4	Start Drop -2.00
5064.1	0.00	0.00	5050.0	171.0	-313.1	2.00	180.00	356.7	Start 2808.0 hold at 5064.1 MD
7872.1	0.00	0.00	7858.0	171.0	-313.1	0.00	0.00	356.7	TD at 7872.1

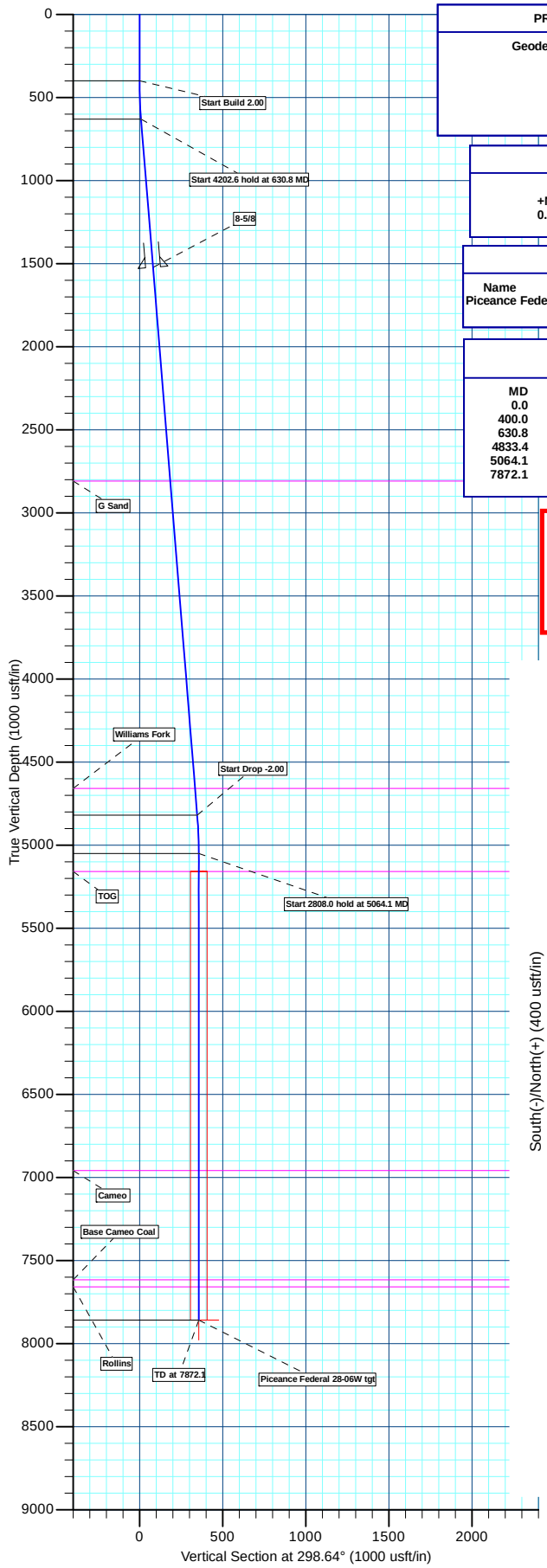


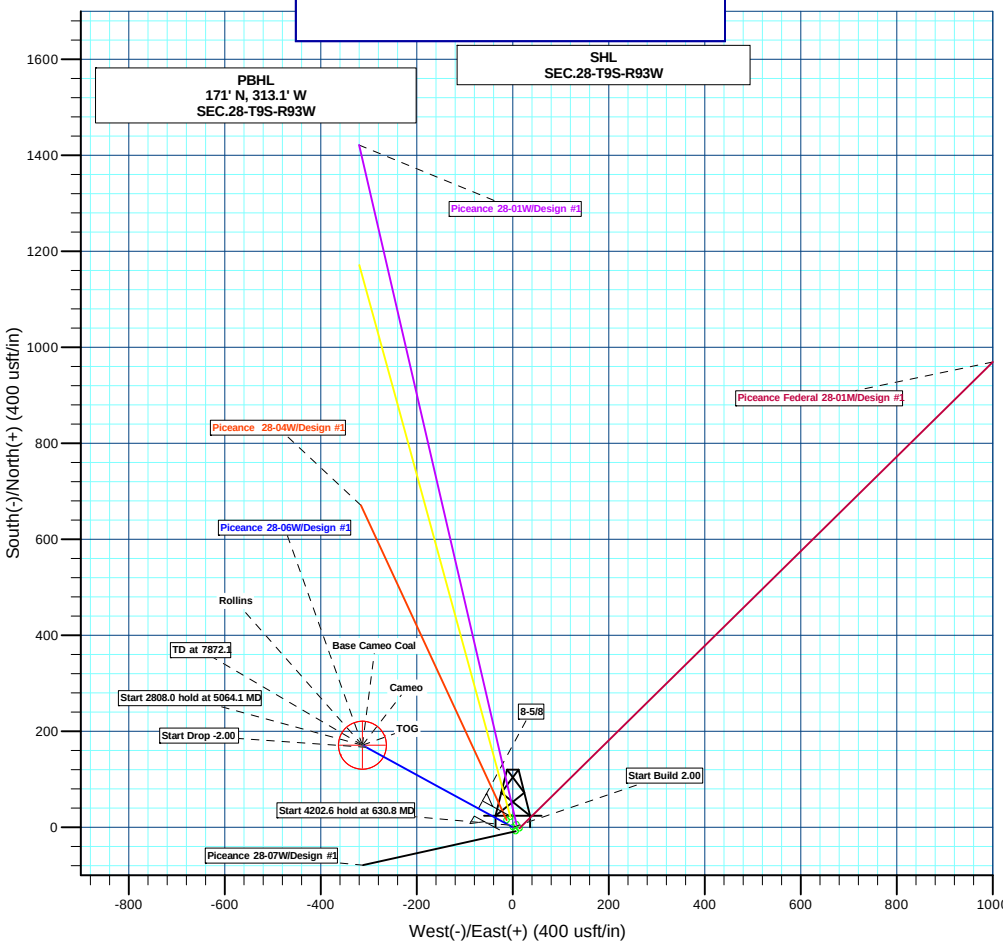
Azimuths to True North
Magnetic North: 9.72°

Magnetic Field
Strength: 51741.9snT
Dip Angle: 65.47°
Date: 2015/04/27
Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2808.0	2815.3	G Sand
4658.0	4671.4	Williams Fork
5158.0	5172.1	TOG
6958.0	6972.1	Cameo
7616.0	7630.1	Base Cameo Coal
7658.0	7672.1	Rollins





Plan: Design #1 (Piceance 28-06W/Slot B-3)

Created By: Ricky Osburn **Date:** 8:31, April 29 2015

Database:	EDMDBBW	**Local Co-ordinate Reference:**	Well Piceance 28-06W
Company:	Piceance Energy, LLC	**TVD Reference:**	Well @ 7578.00usft
Project:	Mesa County, CO	**MD Reference:**	Well @ 7578.00usft
Site:	Piceance 28-05	**North Reference:**	True
Well:	Piceance 28-06W	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Slot B-3		
Design:	Design #1		

Project Mesa County, CO

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site Piceance 28-05

Site Position:		**Northing:**	1,524,375.785 usft	**Latitude:**	39° 15' 3.280 N
From:	Lat/Long	**Easting:**	2,354,593.535 usft	**Longitude:**	107° 46' 45.670 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-1.44 °

Well Piceance 28-06W

Well Position	**+N/-S**	71.82 usft	**Northing:**	1,524,449.357 usft	**Latitude:**	39° 15' 3.990 N
	+E/-W	-70.80 usft	**Easting:**	2,354,524.563 usft	**Longitude:**	107° 46' 46.570 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	7,556.00 usft

Wellbore Slot B-3

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/04/27	9.73	65.47	51,742

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	298.64

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
630.75	4.62	298.64	630.50	4.45	-8.15	2.00	2.00	0.00	298.64	
4,833.37	4.62	298.64	4,819.50	166.54	-304.92	0.00	0.00	0.00	0.00	
5,064.12	0.00	0.00	5,050.00	170.99	-313.07	2.00	-2.00	0.00	180.00	
7,872.12	0.00	0.00	7,858.00	170.99	-313.07	0.00	0.00	0.00	0.00	Piceance Federal 28-

Database:	EDMDBBW	**Local Co-ordinate Reference:**	Well Piceance 28-06W
Company:	Piceance Energy, LLC	**TVD Reference:**	Well @ 7578.00usft
Project:	Mesa County, CO	**MD Reference:**	Well @ 7578.00usft
Site:	Piceance 28-05	**North Reference:**	True
Well:	Piceance 28-06W	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Slot B-3		
Design:	Design #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 (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	2.00	298.64	499.98	0.84	-1.53	1.75	2.00	2.00	0.00
600.00	4.00	298.64	599.84	3.35	-6.12	6.98	2.00	2.00	0.00
Start 4202.6 hold at 630.8 MD									
630.75	4.62	298.64	630.50	4.45	-8.15	9.29	2.00	2.00	0.00
700.00	4.62	298.64	699.53	7.12	-13.04	14.86	0.00	0.00	0.00
800.00	4.62	298.64	799.20	10.98	-20.10	22.91	0.00	0.00	0.00
900.00	4.62	298.64	898.88	14.84	-27.16	30.95	0.00	0.00	0.00
1,000.00	4.62	298.64	998.55	18.69	-34.23	39.00	0.00	0.00	0.00
1,100.00	4.62	298.64	1,098.23	22.55	-41.29	47.04	0.00	0.00	0.00
1,200.00	4.62	298.64	1,197.90	26.41	-48.35	55.09	0.00	0.00	0.00
1,300.00	4.62	298.64	1,297.58	30.26	-55.41	63.14	0.00	0.00	0.00
1,400.00	4.62	298.64	1,397.26	34.12	-62.47	71.18	0.00	0.00	0.00
1,500.00	4.62	298.64	1,496.93	37.98	-69.53	79.23	0.00	0.00	0.00
8-5/8									
1,525.15	4.62	298.64	1,522.00	38.95	-71.31	81.25	0.00	0.00	0.00
1,600.00	4.62	298.64	1,596.61	41.83	-76.60	87.27	0.00	0.00	0.00
1,700.00	4.62	298.64	1,696.28	45.69	-83.66	95.32	0.00	0.00	0.00
1,800.00	4.62	298.64	1,795.96	49.55	-90.72	103.37	0.00	0.00	0.00
1,900.00	4.62	298.64	1,895.64	53.40	-97.78	111.41	0.00	0.00	0.00
2,000.00	4.62	298.64	1,995.31	57.26	-104.84	119.46	0.00	0.00	0.00
2,100.00	4.62	298.64	2,094.99	61.12	-111.90	127.51	0.00	0.00	0.00
2,200.00	4.62	298.64	2,194.66	64.97	-118.96	135.55	0.00	0.00	0.00
2,300.00	4.62	298.64	2,294.34	68.83	-126.03	143.60	0.00	0.00	0.00
2,400.00	4.62	298.64	2,394.01	72.69	-133.09	151.64	0.00	0.00	0.00
2,500.00	4.62	298.64	2,493.69	76.55	-140.15	159.69	0.00	0.00	0.00
2,600.00	4.62	298.64	2,593.37	80.40	-147.21	167.74	0.00	0.00	0.00
2,700.00	4.62	298.64	2,693.04	84.26	-154.27	175.78	0.00	0.00	0.00
2,800.00	4.62	298.64	2,792.72	88.12	-161.33	183.83	0.00	0.00	0.00
G Sand									
2,815.33	4.62	298.64	2,808.00	88.71	-162.42	185.06	0.00	0.00	0.00
2,900.00	4.62	298.64	2,892.39	91.97	-168.39	191.87	0.00	0.00	0.00
3,000.00	4.62	298.64	2,992.07	95.83	-175.46	199.92	0.00	0.00	0.00
3,100.00	4.62	298.64	3,091.74	99.69	-182.52	207.97	0.00	0.00	0.00
3,200.00	4.62	298.64	3,191.42	103.54	-189.58	216.01	0.00	0.00	0.00
3,300.00	4.62	298.64	3,291.10	107.40	-196.64	224.06	0.00	0.00	0.00
3,400.00	4.62	298.64	3,390.77	111.26	-203.70	232.10	0.00	0.00	0.00
3,500.00	4.62	298.64	3,490.45	115.11	-210.76	240.15	0.00	0.00	0.00
3,600.00	4.62	298.64	3,590.12	118.97	-217.83	248.20	0.00	0.00	0.00
3,700.00	4.62	298.64	3,689.80	122.83	-224.89	256.24	0.00	0.00	0.00
3,800.00	4.62	298.64	3,789.48	126.68	-231.95	264.29	0.00	0.00	0.00
3,900.00	4.62	298.64	3,889.15	130.54	-239.01	272.34	0.00	0.00	0.00
4,000.00	4.62	298.64	3,988.83	134.40	-246.07	280.38	0.00	0.00	0.00
4,100.00	4.62	298.64	4,088.50	138.25	-253.13	288.43	0.00	0.00	0.00
4,200.00	4.62	298.64	4,188.18	142.11	-260.19	296.47	0.00	0.00	0.00
4,300.00	4.62	298.64	4,287.85	145.97	-267.26	304.52	0.00	0.00	0.00
4,400.00	4.62	298.64	4,387.53	149.82	-274.32	312.57	0.00	0.00	0.00
4,500.00	4.62	298.64	4,487.21	153.68	-281.38	320.61	0.00	0.00	0.00
4,600.00	4.62	298.64	4,586.88	157.54	-288.44	328.66	0.00	0.00	0.00

Database:	EDMDBBW	**Local Co-ordinate Reference:**	Well Piceance 28-06W
Company:	Piceance Energy, LLC	**TVD Reference:**	Well @ 7578.00usft
Project:	Mesa County, CO	**MD Reference:**	Well @ 7578.00usft
Site:	Piceance 28-05	**North Reference:**	True
Well:	Piceance 28-06W	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Slot B-3		
Design:	Design #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 (°/100usft)	Turn Rate (°/100usft)
Williams Fork									
4,671.35	4.62	298.64	4,658.00	160.29	-293.48	334.40	0.00	0.00	0.00
4,700.00	4.62	298.64	4,686.56	161.39	-295.50	336.70	0.00	0.00	0.00
4,800.00	4.62	298.64	4,786.23	165.25	-302.56	344.75	0.00	0.00	0.00
Start Drop -2.00									
4,833.37	4.62	298.64	4,819.50	166.54	-304.92	347.44	0.00	0.00	0.00
4,900.00	3.28	298.64	4,885.96	168.74	-308.95	352.02	2.00	-2.00	0.00
5,000.00	1.28	298.64	4,985.88	170.65	-312.44	356.01	2.00	-2.00	0.00
Start 2808.0 hold at 5064.1 MD									
5,064.12	0.00	0.00	5,050.00	170.99	-313.07	356.72	2.00	-2.00	0.00
5,100.00	0.00	0.00	5,085.88	170.99	-313.07	356.72	0.00	0.00	0.00
TOG									
5,172.12	0.00	0.00	5,158.00	170.99	-313.07	356.72	0.00	0.00	0.00
5,200.00	0.00	0.00	5,185.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,300.00	0.00	0.00	5,285.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,400.00	0.00	0.00	5,385.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,500.00	0.00	0.00	5,485.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,600.00	0.00	0.00	5,585.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,700.00	0.00	0.00	5,685.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,800.00	0.00	0.00	5,785.88	170.99	-313.07	356.72	0.00	0.00	0.00
5,900.00	0.00	0.00	5,885.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,000.00	0.00	0.00	5,985.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,100.00	0.00	0.00	6,085.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,200.00	0.00	0.00	6,185.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,300.00	0.00	0.00	6,285.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,400.00	0.00	0.00	6,385.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,500.00	0.00	0.00	6,485.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,600.00	0.00	0.00	6,585.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,700.00	0.00	0.00	6,685.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,800.00	0.00	0.00	6,785.88	170.99	-313.07	356.72	0.00	0.00	0.00
6,900.00	0.00	0.00	6,885.88	170.99	-313.07	356.72	0.00	0.00	0.00
Cameo									
6,972.12	0.00	0.00	6,958.00	170.99	-313.07	356.72	0.00	0.00	0.00
7,000.00	0.00	0.00	6,985.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,100.00	0.00	0.00	7,085.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,200.00	0.00	0.00	7,185.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,300.00	0.00	0.00	7,285.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,400.00	0.00	0.00	7,385.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,500.00	0.00	0.00	7,485.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,600.00	0.00	0.00	7,585.88	170.99	-313.07	356.72	0.00	0.00	0.00
Base Cameo Coal									
7,630.12	0.00	0.00	7,616.00	170.99	-313.07	356.72	0.00	0.00	0.00
Rollins									
7,672.12	0.00	0.00	7,658.00	170.99	-313.07	356.72	0.00	0.00	0.00
7,700.00	0.00	0.00	7,685.88	170.99	-313.07	356.72	0.00	0.00	0.00
7,800.00	0.00	0.00	7,785.88	170.99	-313.07	356.72	0.00	0.00	0.00
TD at 7872.1									
7,872.12	0.00	0.00	7,858.00	170.99	-313.07	356.72	0.00	0.00	0.00

Database:	EDMDBBW	**Local Co-ordinate Reference:**	Well Piceance 28-06W
Company:	Piceance Energy, LLC	**TVD Reference:**	Well @ 7578.00usft
Project:	Mesa County, CO	**MD Reference:**	Well @ 7578.00usft
Site:	Piceance 28-05	**North Reference:**	True
Well:	Piceance 28-06W	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Slot B-3		
Design:	Design #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Piceance Federal 28-06 - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,858.00	171.00	-313.07	1,524,628.153	2,354,215.881	39° 15' 5.680 N	107° 46' 50.550 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,525.15	1,522.00	8-5/8	8-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,815.33	2,808.00	G Sand		0.00	
4,671.35	4,658.00	Williams Fork		0.00	
5,172.12	5,158.00	TOG		0.00	
6,972.12	6,958.00	Cameo		0.00	
7,630.12	7,616.00	Base Cameo Coal		0.00	
7,672.12	7,658.00	Rollins		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
400.00	400.00	0.00	0.00	Start Build 2.00
630.75	630.50	4.45	-8.15	Start 4202.6 hold at 630.8 MD
4,833.37	4,819.50	166.54	-304.92	Start Drop -2.00
5,064.12	5,050.00	170.99	-313.07	Start 2808.0 hold at 5064.1 MD
7,872.12	7,858.00	170.99	-313.07	TD at 7872.1

Piceance Energy, LLC

Mesa County, CO
Piceance 28-05
Piceance Federal 28-06W

Slot B-3
Design #1

Anticollision Report

28 April, 2015

Archer

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Reference Design #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 1,000.0 usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 2015/04/28

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	7,872.1	Design #1 (Slot B-3)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Piceance 28-05						
Piceance Federal 28-01M - Slot A-4 - Design #1	100.0	100.0	14.3	14.1	81.583	CC, ES
Piceance Federal 28-01M - Slot A-4 - Design #1	400.0	398.0	26.8	25.3	17.182	SF
Piceance Federal 28-01W - Slot A-3 - Design #1	100.0	100.0	9.9	9.8	56.675	CC, ES
Piceance Federal 28-01W - Slot A-3 - Design #1	300.0	299.4	14.3	13.2	13.203	SF
Piceance Federal 28-02W - Slot A-2 - Design #1	200.0	200.0	21.8	21.1	34.831	CC, ES
Piceance Federal 28-02W - Slot A-2 - Design #1	500.0	496.8	36.2	34.2	18.172	SF
Piceance Federal 28-04W - Slot B-2 - Design #1	100.0	100.0	19.7	19.5	112.457	CC, ES
Piceance Federal 28-04W - Slot B-2 - Design #1	7,872.1	7,913.2	499.8	462.8	13.520	SF
Piceance Federal 28-07W - Slot B-4 - Design #1	400.0	400.0	10.3	8.7	6.728	CC, ES
Piceance Federal 28-07W - Slot B-4 - Design #1	500.0	500.0	11.9	9.9	5.987	SF

Offset Design Piceance 28-05 - Piceance Federal 28-01M - Slot A-4 - Design #1

Offset Site Error: 0.0 usft
Survey Program: 0-MWD
Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	98.13	-2.0	14.2	14.3				
100.0	100.0	100.0	100.0	0.1	0.1	98.13	-2.0	14.2	14.3	14.1	0.18	81.583	CC, ES
200.0	200.0	199.7	199.6	0.3	0.3	93.00	-0.8	15.4	15.4	14.8	0.62	24.742	
300.0	300.0	299.1	298.9	0.5	0.6	81.57	2.8	19.1	19.3	18.2	1.08	17.877	
400.0	400.0	398.0	397.5	0.8	0.8	70.65	8.8	25.2	26.8	25.3	1.56	17.182	SF
500.0	500.0	496.2	494.9	1.0	1.1	126.22	17.2	33.6	39.1	37.1	2.03	19.224	
600.0	599.8	593.1	590.6	1.2	1.4	125.00	27.7	44.3	56.8	54.2	2.52	22.480	
700.0	699.5	688.4	684.3	1.4	1.8	125.24	40.2	57.1	79.0	76.0	3.02	26.195	
800.0	799.2	782.3	775.9	1.7	2.2	124.94	54.7	71.8	104.4	100.9	3.51	29.712	
900.0	898.9	874.6	865.2	1.9	2.6	124.32	71.0	88.3	132.8	128.7	4.02	33.014	
1,000.0	998.6	965.1	952.0	2.2	3.1	123.60	88.9	106.5	164.0	159.5	4.54	36.158	
1,100.0	1,098.2	1,053.7	1,036.2	2.5	3.7	122.87	108.4	126.2	198.2	193.1	5.06	39.183	
1,200.0	1,197.9	1,140.3	1,117.6	2.7	4.2	122.15	129.1	147.2	235.1	229.5	5.58	42.120	
1,300.0	1,297.6	1,224.8	1,196.2	3.0	4.8	121.48	151.0	169.5	274.6	268.5	6.11	44.959	
1,400.0	1,397.3	1,307.2	1,271.8	3.2	5.4	120.86	173.9	192.7	316.8	310.2	6.63	47.753	
1,500.0	1,496.9	1,387.4	1,344.5	3.5	6.1	120.28	197.6	216.8	361.5	354.3	7.16	50.473	
1,600.0	1,596.6	1,465.4	1,414.3	3.8	6.8	119.75	222.0	241.6	408.6	400.9	7.69	53.140	

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

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-01M - Slot A-4 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,700.0	1,696.3	1,541.1	1,481.1	4.0	7.5	119.27	247.0	267.0	458.0	449.8	8.21	55.769	
1,800.0	1,796.0	1,622.1	1,551.7	4.3	8.2	118.79	274.9	295.2	509.3	500.5	8.76	58.151	
1,900.0	1,895.6	1,707.8	1,626.4	4.6	9.1	118.37	304.4	325.2	560.7	551.4	9.31	60.238	
2,000.0	1,995.3	1,793.5	1,701.0	4.8	9.9	118.02	333.9	355.2	612.2	602.3	9.86	62.069	
2,100.0	2,095.0	1,879.2	1,775.6	5.1	10.7	117.72	363.5	385.2	663.7	653.3	10.42	63.686	
2,200.0	2,194.7	1,964.8	1,850.3	5.4	11.6	117.47	393.0	415.2	715.2	704.2	10.98	65.127	
2,300.0	2,294.3	2,050.5	1,924.9	5.6	12.4	117.25	422.5	445.1	766.7	755.2	11.54	66.419	
2,400.0	2,394.0	2,136.2	1,999.5	5.9	13.2	117.06	452.1	475.1	818.2	806.1	12.11	67.581	
2,500.0	2,493.7	2,221.9	2,074.2	6.2	14.1	116.89	481.6	505.1	869.7	857.1	12.67	68.633	
2,600.0	2,593.4	2,307.6	2,148.8	6.5	14.9	116.74	511.2	535.1	921.3	908.0	13.24	69.588	
2,700.0	2,693.0	2,393.2	2,223.4	6.7	15.7	116.61	540.7	565.1	972.8	959.0	13.81	70.459	

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-01W - Slot A-3 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	52.34	6.1	7.9	9.9				
100.0	100.0	100.0	100.0	0.1	0.1	52.34	6.1	7.9	9.9	9.8	0.18	56.675	CC, ES
200.0	200.0	199.8	199.8	0.3	0.3	43.91	7.8	7.5	10.8	10.2	0.63	17.228	
300.0	300.0	299.4	299.2	0.5	0.6	26.16	12.8	6.3	14.3	13.2	1.08	13.203	SF
400.0	400.0	398.5	397.9	0.8	0.8	11.62	21.2	4.4	21.7	20.2	1.57	13.895	
500.0	500.0	497.0	495.7	1.0	1.1	66.84	32.8	1.7	32.4	30.4	2.03	15.995	
600.0	599.8	594.9	592.5	1.2	1.4	66.43	47.6	-1.8	45.1	42.6	2.51	17.990	
700.0	699.5	692.2	687.9	1.4	1.8	67.56	65.5	-5.9	59.9	56.9	3.01	19.883	
800.0	799.2	788.4	781.8	1.7	2.2	67.55	86.2	-10.7	77.8	74.3	3.54	21.994	
900.0	898.9	883.4	873.6	1.9	2.7	66.91	109.8	-16.2	98.8	94.8	4.08	24.251	
1,000.0	998.6	977.0	963.3	2.2	3.2	66.03	135.8	-22.2	122.9	118.3	4.62	26.600	
1,100.0	1,098.2	1,069.0	1,050.7	2.5	3.7	65.07	164.2	-28.8	150.0	144.8	5.17	29.008	
1,200.0	1,197.9	1,159.4	1,135.4	2.7	4.3	64.14	194.7	-35.9	180.0	174.3	5.72	31.449	
1,300.0	1,297.6	1,248.0	1,217.5	3.0	4.9	63.26	227.1	-43.4	212.9	206.6	6.28	33.918	
1,400.0	1,397.3	1,338.2	1,300.2	3.2	5.6	62.44	262.4	-51.5	248.3	241.4	6.84	36.278	
1,500.0	1,496.9	1,431.6	1,385.6	3.5	6.3	61.78	299.1	-60.0	284.0	276.6	7.41	38.326	
1,600.0	1,596.6	1,524.9	1,471.0	3.8	7.1	61.27	335.8	-68.5	319.8	311.8	7.98	40.065	
1,700.0	1,696.3	1,618.3	1,556.4	4.0	7.8	60.87	372.5	-77.1	355.6	347.0	8.56	41.557	
1,800.0	1,796.0	1,711.6	1,641.8	4.3	8.5	60.53	409.3	-85.6	391.4	382.3	9.13	42.849	
1,900.0	1,895.6	1,805.0	1,727.2	4.6	9.2	60.26	446.0	-94.1	427.2	417.5	9.71	43.979	
2,000.0	1,995.3	1,898.3	1,812.6	4.8	10.0	60.02	482.7	-102.6	463.0	452.7	10.30	44.973	
2,100.0	2,095.0	1,991.7	1,898.0	5.1	10.7	59.82	519.4	-111.1	498.8	488.0	10.88	45.855	
2,200.0	2,194.7	2,085.0	1,983.4	5.4	11.4	59.65	556.1	-119.6	534.7	523.2	11.46	46.642	
2,300.0	2,294.3	2,178.4	2,068.8	5.6	12.2	59.50	592.9	-128.1	570.5	558.5	12.05	47.349	
2,400.0	2,394.0	2,271.7	2,154.2	5.9	12.9	59.36	629.6	-136.6	606.3	593.7	12.64	47.987	
2,500.0	2,493.7	2,365.1	2,239.6	6.2	13.6	59.24	666.3	-145.1	642.2	629.0	13.22	48.565	
2,600.0	2,593.4	2,458.4	2,325.0	6.5	14.4	59.14	703.0	-153.6	678.0	664.2	13.81	49.092	
2,700.0	2,693.0	2,551.8	2,410.4	6.7	15.1	59.04	739.7	-162.2	713.9	699.5	14.40	49.574	
2,800.0	2,792.7	2,645.1	2,495.8	7.0	15.8	58.96	776.5	-170.7	749.7	734.7	14.99	50.016	
2,900.0	2,892.4	2,738.5	2,581.2	7.3	16.6	58.88	813.2	-179.2	785.6	770.0	15.58	50.423	
3,000.0	2,992.1	2,831.8	2,666.6	7.5	17.3	58.81	849.9	-187.7	821.4	805.2	16.17	50.800	
3,100.0	3,091.7	2,925.2	2,752.0	7.8	18.0	58.74	886.6	-196.2	857.3	840.5	16.76	51.148	
3,200.0	3,191.4	3,018.5	2,837.4	8.1	18.8	58.68	923.3	-204.7	893.1	875.8	17.35	51.472	
3,300.0	3,291.1	3,111.9	2,922.8	8.3	19.5	58.62	960.1	-213.2	929.0	911.0	17.94	51.774	
3,400.0	3,390.8	3,205.2	3,008.2	8.6	20.3	58.57	996.8	-221.7	964.8	946.3	18.53	52.056	

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

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-02W - Slot A-2 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-12.52	21.2	-4.7	21.8				
100.0	100.0	100.0	100.0	0.1	0.1	-12.52	21.2	-4.7	21.8	21.6	0.18	124.141	
200.0	200.0	200.0	200.0	0.3	0.3	-12.52	21.2	-4.7	21.8	21.1	0.62	34.831	CC, ES
300.0	300.0	299.2	299.2	0.5	0.5	-12.73	22.9	-5.2	23.5	22.4	1.07	21.894	
400.0	400.0	398.2	398.0	0.8	0.8	-13.19	27.9	-6.5	28.7	27.1	1.53	18.762	
500.0	500.0	496.8	496.2	1.0	1.0	49.60	36.1	-8.8	36.2	34.2	1.99	18.172	SF
600.0	599.8	595.0	593.7	1.2	1.3	53.54	47.5	-11.9	44.9	42.5	2.46	18.287	
700.0	699.5	692.6	690.2	1.4	1.6	57.83	62.0	-15.9	55.7	52.8	2.94	18.966	
800.0	799.2	789.5	785.4	1.7	2.0	60.16	79.5	-20.7	70.0	66.5	3.44	20.333	
900.0	898.9	885.4	878.9	1.9	2.4	61.10	100.0	-26.2	87.4	83.5	3.96	22.094	
1,000.0	998.6	980.2	970.6	2.2	2.8	61.26	123.1	-32.6	108.1	103.6	4.49	24.094	
1,100.0	1,098.2	1,073.5	1,060.1	2.5	3.3	60.99	148.7	-39.6	131.8	126.8	5.02	26.246	
1,200.0	1,197.9	1,165.4	1,147.2	2.7	3.8	60.51	176.7	-47.2	158.6	153.0	5.56	28.497	
1,300.0	1,297.6	1,255.6	1,231.9	3.0	4.4	59.94	206.7	-55.4	188.3	182.2	6.11	30.815	
1,400.0	1,397.3	1,348.6	1,318.3	3.2	5.1	59.36	239.7	-64.5	220.2	213.5	6.67	33.023	
1,500.0	1,496.9	1,443.3	1,406.4	3.5	5.7	58.91	273.4	-73.7	252.3	245.1	7.23	34.910	
1,600.0	1,596.6	1,538.0	1,494.4	3.8	6.4	58.56	307.1	-82.9	284.4	276.6	7.79	36.507	
1,700.0	1,696.3	1,632.7	1,582.4	4.0	7.1	58.28	340.8	-92.1	316.4	308.1	8.35	37.874	
1,800.0	1,796.0	1,727.4	1,670.4	4.3	7.7	58.06	374.5	-101.3	348.5	339.6	8.92	39.055	
1,900.0	1,895.6	1,822.1	1,758.5	4.6	8.4	57.87	408.2	-110.6	380.6	371.1	9.50	40.084	
2,000.0	1,995.3	1,916.8	1,846.5	4.8	9.1	57.71	441.9	-119.8	412.7	402.6	10.07	40.989	
2,100.0	2,095.0	2,011.5	1,934.5	5.1	9.8	57.57	475.6	-129.0	444.8	434.2	10.64	41.790	
2,200.0	2,194.7	2,106.2	2,022.5	5.4	10.5	57.45	509.3	-138.2	476.9	465.7	11.22	42.504	
2,300.0	2,294.3	2,200.9	2,110.5	5.6	11.1	57.35	543.0	-147.4	509.0	497.2	11.80	43.144	
2,400.0	2,394.0	2,295.6	2,198.6	5.9	11.8	57.26	576.7	-156.6	541.1	528.7	12.38	43.720	
2,500.0	2,493.7	2,390.3	2,286.6	6.2	12.5	57.18	610.4	-165.9	573.2	560.3	12.96	44.242	
2,600.0	2,593.4	2,485.0	2,374.6	6.5	13.2	57.11	644.1	-175.1	605.3	591.8	13.54	44.717	
2,700.0	2,693.0	2,579.7	2,462.6	6.7	13.9	57.04	677.8	-184.3	637.4	623.3	14.12	45.151	
2,800.0	2,792.7	2,674.4	2,550.7	7.0	14.6	56.98	711.5	-193.5	669.5	654.8	14.70	45.549	
2,900.0	2,892.4	2,769.1	2,638.7	7.3	15.2	56.93	745.2	-202.7	701.6	686.4	15.28	45.915	
3,000.0	2,992.1	2,863.8	2,726.7	7.5	15.9	56.88	778.9	-212.0	733.7	717.9	15.86	46.253	
3,100.0	3,091.7	2,958.5	2,814.7	7.8	16.6	56.84	812.6	-221.2	765.9	749.4	16.45	46.566	
3,200.0	3,191.4	3,053.2	2,902.7	8.1	17.3	56.80	846.3	-230.4	798.0	780.9	17.03	46.857	
3,300.0	3,291.1	3,147.9	2,990.8	8.3	18.0	56.76	880.0	-239.6	830.1	812.5	17.61	47.127	
3,400.0	3,390.8	3,242.7	3,078.8	8.6	18.7	56.73	913.7	-248.8	862.2	844.0	18.20	47.380	
3,500.0	3,490.4	3,337.4	3,166.8	8.9	19.4	56.69	947.4	-258.0	894.3	875.5	18.78	47.616	
3,600.0	3,590.1	3,437.9	3,260.3	9.1	20.1	56.66	983.2	-267.8	926.4	907.0	19.38	47.800	
3,700.0	3,689.8	3,579.1	3,393.0	9.4	20.9	56.67	1,029.4	-280.5	955.6	935.5	20.06	47.643	
3,800.0	3,789.5	3,724.1	3,531.7	9.7	21.6	56.77	1,070.3	-291.7	980.1	959.3	20.71	47.317	
3,900.0	3,889.2	3,872.4	3,675.5	9.9	22.2	56.95	1,105.1	-301.2	999.7	978.3	21.36	46.805	

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-04W - Slot B-2 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-39.67	15.2	-12.6	19.7				
100.0	100.0	100.0	100.0	0.1	0.1	-39.67	15.2	-12.6	19.7	19.5	0.18	112.457	CC, ES
200.0	200.0	199.3	199.3	0.3	0.3	-38.49	16.7	-13.3	21.4	20.8	0.63	34.194	
300.0	300.0	298.4	298.2	0.5	0.6	-35.86	21.4	-15.5	26.5	25.4	1.09	24.357	
400.0	400.0	396.9	396.4	0.8	0.8	-33.18	29.1	-19.0	35.0	33.4	1.56	22.396	
500.0	500.0	495.0	493.8	1.0	1.1	31.28	39.8	-24.0	45.5	43.4	2.01	22.559	
600.0	599.8	593.4	591.0	1.2	1.4	35.29	53.4	-30.3	56.2	53.7	2.49	22.557	
700.0	699.5	692.8	689.2	1.4	1.8	39.49	67.5	-36.8	65.7	62.8	2.96	22.185	
800.0	799.2	792.3	787.5	1.7	2.1	42.73	81.7	-43.4	75.4	71.9	3.44	21.894	
900.0	898.9	891.8	885.7	1.9	2.5	45.23	95.8	-49.9	85.2	81.2	3.93	21.649	
1,000.0	998.6	991.2	983.9	2.2	2.8	47.21	110.0	-56.5	95.1	90.7	4.44	21.440	
1,100.0	1,098.2	1,090.7	1,082.1	2.5	3.2	48.82	124.2	-63.1	105.2	100.2	4.95	21.260	
1,200.0	1,197.9	1,190.1	1,180.4	2.7	3.5	50.14	138.3	-69.6	115.3	109.8	5.46	21.106	
1,300.0	1,297.6	1,289.6	1,278.6	3.0	3.9	51.25	152.5	-76.2	125.4	119.4	5.98	20.971	
1,400.0	1,397.3	1,389.0	1,376.8	3.2	4.3	52.20	166.6	-82.7	135.6	129.1	6.50	20.853	
1,500.0	1,496.9	1,488.5	1,475.0	3.5	4.6	53.01	180.8	-89.3	145.8	138.8	7.03	20.749	
1,600.0	1,596.6	1,588.0	1,573.2	3.8	5.0	53.72	195.0	-95.8	156.1	148.5	7.56	20.656	
1,700.0	1,696.3	1,687.4	1,671.5	4.0	5.3	54.34	209.1	-102.4	166.4	158.3	8.09	20.574	
1,800.0	1,796.0	1,786.9	1,769.7	4.3	5.7	54.88	223.3	-109.0	176.7	168.0	8.62	20.501	
1,900.0	1,895.6	1,886.3	1,867.9	4.6	6.1	55.37	237.4	-115.5	187.0	177.8	9.15	20.434	
2,000.0	1,995.3	1,985.8	1,966.1	4.8	6.4	55.80	251.6	-122.1	197.3	187.6	9.68	20.374	
2,100.0	2,095.0	2,085.2	2,064.4	5.1	6.8	56.20	265.8	-128.6	207.6	197.4	10.22	20.320	
2,200.0	2,194.7	2,184.7	2,162.6	5.4	7.2	56.55	279.9	-135.2	217.9	207.2	10.75	20.270	
2,300.0	2,294.3	2,284.1	2,260.8	5.6	7.5	56.87	294.1	-141.8	228.3	217.0	11.29	20.225	
2,400.0	2,394.0	2,383.6	2,359.0	5.9	7.9	57.17	308.2	-148.3	238.6	226.8	11.82	20.183	
2,500.0	2,493.7	2,483.1	2,457.3	6.2	8.2	57.44	322.4	-154.9	249.0	236.6	12.36	20.145	
2,600.0	2,593.4	2,582.5	2,555.5	6.5	8.6	57.69	336.6	-161.4	259.3	246.4	12.90	20.109	
2,700.0	2,693.0	2,682.0	2,653.7	6.7	9.0	57.92	350.7	-168.0	269.7	256.3	13.43	20.076	
2,800.0	2,792.7	2,781.4	2,751.9	7.0	9.3	58.13	364.9	-174.5	280.1	266.1	13.97	20.046	
2,900.0	2,892.4	2,880.9	2,850.2	7.3	9.7	58.33	379.0	-181.1	290.4	275.9	14.51	20.017	
3,000.0	2,992.1	2,980.3	2,948.4	7.5	10.1	58.51	393.2	-187.7	300.8	285.8	15.05	19.990	
3,100.0	3,091.7	3,079.8	3,046.6	7.8	10.4	58.68	407.4	-194.2	311.2	295.6	15.59	19.966	
3,200.0	3,191.4	3,179.2	3,144.8	8.1	10.8	58.84	421.5	-200.8	321.6	305.4	16.12	19.942	
3,300.0	3,291.1	3,278.7	3,243.1	8.3	11.1	59.00	435.7	-207.3	331.9	315.3	16.66	19.920	
3,400.0	3,390.8	3,378.2	3,341.3	8.6	11.5	59.14	449.8	-213.9	342.3	325.1	17.20	19.900	
3,500.0	3,490.4	3,477.6	3,439.5	8.9	11.9	59.27	464.0	-220.4	352.7	335.0	17.74	19.880	
3,600.0	3,590.1	3,577.1	3,537.7	9.1	12.2	59.40	478.2	-227.0	363.1	344.8	18.28	19.862	
3,700.0	3,689.8	3,676.5	3,636.0	9.4	12.6	59.51	492.3	-233.6	373.5	354.7	18.82	19.844	
3,800.0	3,789.5	3,776.0	3,734.2	9.7	13.0	59.63	506.5	-240.1	383.9	364.5	19.36	19.828	
3,900.0	3,889.2	3,875.4	3,832.4	9.9	13.3	59.73	520.6	-246.7	394.3	374.4	19.90	19.812	
4,000.0	3,988.8	3,974.9	3,930.6	10.2	13.7	59.83	534.8	-253.2	404.7	384.2	20.44	19.797	
4,100.0	4,088.5	4,074.4	4,028.8	10.5	14.1	59.93	549.0	-259.8	415.1	394.1	20.98	19.783	
4,200.0	4,188.2	4,173.8	4,127.1	10.7	14.4	60.02	563.1	-266.4	425.5	403.9	21.52	19.770	
4,300.0	4,287.9	4,273.3	4,225.3	11.0	14.8	60.11	577.3	-272.9	435.9	413.8	22.06	19.757	
4,400.0	4,387.5	4,372.7	4,323.5	11.3	15.1	60.19	591.4	-279.5	446.3	423.7	22.60	19.745	
4,500.0	4,487.2	4,472.2	4,421.7	11.6	15.5	60.27	605.6	-286.0	456.7	433.5	23.14	19.733	
4,600.0	4,586.9	4,571.6	4,520.0	11.8	15.9	60.34	619.8	-292.6	467.1	443.4	23.68	19.722	
4,700.0	4,686.6	4,671.1	4,618.2	12.1	16.2	60.41	633.9	-299.1	477.5	453.2	24.22	19.711	
4,800.0	4,786.2	4,782.8	4,728.7	12.4	16.6	60.54	648.8	-306.1	487.0	462.3	24.77	19.661	
4,900.0	4,886.0	4,901.0	4,846.2	12.6	16.9	60.87	660.6	-311.5	493.4	468.2	25.25	19.540	
5,000.0	4,985.9	5,019.6	4,964.5	12.8	17.1	61.04	667.9	-314.9	497.7	472.1	25.62	19.429	
5,100.0	5,085.9	5,138.4	5,083.2	12.9	17.3	-0.36	670.7	-316.2	499.8	473.8	25.94	19.265	

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

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-04W - Slot B-2 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,185.9	5,241.0	5,185.9	13.1	17.4	-0.36	670.8	-316.2	499.8	473.5	26.31	18.999	
5,300.0	5,285.9	5,341.0	5,285.9	13.3	17.6	-0.36	670.8	-316.2	499.8	473.1	26.69	18.729	
5,400.0	5,385.9	5,441.0	5,385.9	13.5	17.7	-0.36	670.8	-316.2	499.8	472.7	27.07	18.466	
5,500.0	5,485.9	5,541.0	5,485.9	13.7	17.8	-0.36	670.8	-316.2	499.8	472.3	27.45	18.209	
5,600.0	5,585.9	5,641.0	5,585.9	13.9	18.0	-0.36	670.8	-316.2	499.8	472.0	27.83	17.957	
5,700.0	5,685.9	5,741.0	5,685.9	14.1	18.1	-0.36	670.8	-316.2	499.8	471.6	28.22	17.711	
5,800.0	5,785.9	5,841.0	5,785.9	14.3	18.3	-0.36	670.8	-316.2	499.8	471.2	28.61	17.471	
5,900.0	5,885.9	5,941.0	5,885.9	14.5	18.4	-0.36	670.8	-316.2	499.8	470.8	29.00	17.236	
6,000.0	5,985.9	6,041.0	5,985.9	14.7	18.6	-0.36	670.8	-316.2	499.8	470.4	29.39	17.006	
6,100.0	6,085.9	6,141.0	6,085.9	14.8	18.8	-0.36	670.8	-316.2	499.8	470.0	29.78	16.781	
6,200.0	6,185.9	6,241.0	6,185.9	15.0	18.9	-0.36	670.8	-316.2	499.8	469.6	30.18	16.562	
6,300.0	6,285.9	6,341.0	6,285.9	15.2	19.1	-0.36	670.8	-316.2	499.8	469.2	30.57	16.347	
6,400.0	6,385.9	6,441.0	6,385.9	15.4	19.2	-0.36	670.8	-316.2	499.8	468.8	30.97	16.137	
6,500.0	6,485.9	6,541.0	6,485.9	15.6	19.4	-0.36	670.8	-316.2	499.8	468.4	31.37	15.932	
6,600.0	6,585.9	6,641.0	6,585.9	15.8	19.5	-0.36	670.8	-316.2	499.8	468.0	31.77	15.731	
6,700.0	6,685.9	6,741.0	6,685.9	16.0	19.7	-0.36	670.8	-316.2	499.8	467.6	32.17	15.534	
6,800.0	6,785.9	6,841.0	6,785.9	16.2	19.9	-0.36	670.8	-316.2	499.8	467.2	32.58	15.342	
6,900.0	6,885.9	6,941.0	6,885.9	16.4	20.0	-0.36	670.8	-316.2	499.8	466.8	32.98	15.154	
7,000.0	6,985.9	7,041.0	6,985.9	16.6	20.2	-0.36	670.8	-316.2	499.8	466.4	33.39	14.970	
7,100.0	7,085.9	7,141.0	7,085.9	16.8	20.4	-0.36	670.8	-316.2	499.8	466.0	33.79	14.790	
7,200.0	7,185.9	7,241.0	7,185.9	17.0	20.5	-0.36	670.8	-316.2	499.8	465.6	34.20	14.613	
7,300.0	7,285.9	7,341.0	7,285.9	17.2	20.7	-0.36	670.8	-316.2	499.8	465.2	34.61	14.441	
7,400.0	7,385.9	7,441.0	7,385.9	17.4	20.9	-0.36	670.8	-316.2	499.8	464.8	35.02	14.272	
7,500.0	7,485.9	7,541.0	7,485.9	17.7	21.1	-0.36	670.8	-316.2	499.8	464.4	35.43	14.106	
7,600.0	7,585.9	7,641.0	7,585.9	17.9	21.2	-0.36	670.8	-316.2	499.8	464.0	35.84	13.944	
7,700.0	7,685.9	7,741.0	7,685.9	18.1	21.4	-0.36	670.8	-316.2	499.8	463.5	36.25	13.786	
7,800.0	7,785.9	7,841.0	7,785.9	18.3	21.6	-0.36	670.8	-316.2	499.8	463.1	36.67	13.630	
7,872.1	7,858.0	7,913.2	7,858.0	18.4	21.7	-0.36	670.8	-316.2	499.8	462.8	36.97	13.520 SF	

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-07W - Slot B-4 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	142.13	-8.1	6.3	10.3				
100.0	100.0	100.0	100.0	0.1	0.1	142.13	-8.1	6.3	10.3	10.1	0.18	58.478	
200.0	200.0	200.0	200.0	0.3	0.3	142.13	-8.1	6.3	10.3	9.6	0.62	16.407	
300.0	300.0	300.0	300.0	0.5	0.5	142.13	-8.1	6.3	10.3	9.2	1.07	9.542	
400.0	400.0	400.0	400.0	0.8	0.8	142.13	-8.1	6.3	10.3	8.7	1.52	6.728	CC, ES
500.0	500.0	500.0	500.0	1.0	1.0	-159.86	-8.1	6.3	11.9	9.9	1.98	5.987	SF
600.0	599.8	599.8	599.8	1.2	1.2	-165.96	-8.1	6.3	16.9	14.4	2.46	6.862	
700.0	699.5	699.5	699.5	1.4	1.4	-170.41	-8.1	6.3	24.6	21.7	2.91	8.452	
800.0	799.2	799.9	799.9	1.7	1.6	-170.40	-8.5	4.6	31.4	28.1	3.33	9.432	
900.0	898.9	900.5	900.3	1.9	1.8	-166.06	-9.6	-0.6	36.2	32.4	3.76	9.629	
1,000.0	998.6	1,000.6	1,000.1	2.2	2.1	-159.47	-11.3	-8.3	39.7	35.5	4.20	9.447	
1,100.0	1,098.2	1,100.4	1,099.6	2.5	2.3	-153.83	-13.1	-16.1	43.6	39.0	4.67	9.335	
1,200.0	1,197.9	1,200.2	1,199.1	2.7	2.5	-149.15	-14.8	-24.0	47.9	42.7	5.16	9.284	
1,300.0	1,297.6	1,300.1	1,298.6	3.0	2.8	-145.26	-16.6	-31.9	52.4	46.8	5.66	9.270	
1,400.0	1,397.3	1,399.9	1,398.1	3.2	3.0	-142.00	-18.4	-39.8	57.2	51.0	6.16	9.278	
1,500.0	1,496.9	1,499.7	1,497.6	3.5	3.3	-139.25	-20.1	-47.6	62.1	55.4	6.68	9.300	
1,600.0	1,596.6	1,599.6	1,597.2	3.8	3.5	-136.90	-21.9	-55.5	67.1	59.9	7.19	9.330	
1,700.0	1,696.3	1,699.4	1,696.7	4.0	3.8	-134.88	-23.6	-63.4	72.2	64.5	7.71	9.365	
1,800.0	1,796.0	1,799.3	1,796.2	4.3	4.1	-133.13	-25.4	-71.2	77.4	69.2	8.23	9.402	
1,900.0	1,895.6	1,899.1	1,895.7	4.6	4.3	-131.61	-27.1	-79.1	82.7	73.9	8.76	9.440	
2,000.0	1,995.3	1,998.9	1,995.2	4.8	4.6	-130.26	-28.9	-87.0	88.0	78.7	9.28	9.478	
2,100.0	2,095.0	2,098.8	2,094.7	5.1	4.9	-129.07	-30.6	-94.8	93.3	83.5	9.81	9.515	
2,200.0	2,194.7	2,198.6	2,194.2	5.4	5.1	-128.01	-32.4	-102.7	98.7	88.4	10.34	9.550	
2,300.0	2,294.3	2,298.5	2,293.7	5.6	5.4	-127.06	-34.1	-110.6	104.1	93.3	10.86	9.585	
2,400.0	2,394.0	2,398.3	2,393.3	5.9	5.6	-126.20	-35.9	-118.5	109.6	98.2	11.39	9.618	
2,500.0	2,493.7	2,498.1	2,492.8	6.2	5.9	-125.42	-37.6	-126.3	115.0	103.1	11.92	9.650	
2,600.0	2,593.4	2,598.0	2,592.3	6.5	6.2	-124.72	-39.4	-134.2	120.5	108.1	12.45	9.680	
2,700.0	2,693.0	2,697.8	2,691.8	6.7	6.5	-124.08	-41.2	-142.1	126.0	113.0	12.98	9.709	
2,800.0	2,792.7	2,797.7	2,791.3	7.0	6.7	-123.49	-42.9	-149.9	131.5	118.0	13.51	9.736	
2,900.0	2,892.4	2,897.5	2,890.8	7.3	7.0	-122.94	-44.7	-157.8	137.0	123.0	14.04	9.762	
3,000.0	2,992.1	2,997.3	2,990.3	7.5	7.3	-122.44	-46.4	-165.7	142.6	128.0	14.57	9.787	
3,100.0	3,091.7	3,097.2	3,089.8	7.8	7.5	-121.98	-48.2	-173.6	148.1	133.0	15.10	9.811	
3,200.0	3,191.4	3,197.0	3,189.4	8.1	7.8	-121.55	-49.9	-181.4	153.7	138.1	15.63	9.834	
3,300.0	3,291.1	3,296.9	3,288.9	8.3	8.1	-121.15	-51.7	-189.3	159.3	143.1	16.16	9.855	
3,400.0	3,390.8	3,396.7	3,388.4	8.6	8.3	-120.78	-53.4	-197.2	164.8	148.1	16.69	9.876	
3,500.0	3,490.4	3,496.5	3,487.9	8.9	8.6	-120.43	-55.2	-205.0	170.4	153.2	17.22	9.895	
3,600.0	3,590.1	3,596.4	3,587.4	9.1	8.9	-120.10	-56.9	-212.9	176.0	158.2	17.75	9.914	
3,700.0	3,689.8	3,696.2	3,686.9	9.4	9.1	-119.80	-58.7	-220.8	181.6	163.3	18.28	9.932	
3,800.0	3,789.5	3,796.0	3,786.4	9.7	9.4	-119.51	-60.4	-228.6	187.2	168.4	18.81	9.949	
3,900.0	3,889.2	3,895.9	3,886.0	9.9	9.7	-119.24	-62.2	-236.5	192.8	173.4	19.35	9.965	
4,000.0	3,988.8	3,995.7	3,985.5	10.2	10.0	-118.98	-63.9	-244.4	198.4	178.5	19.88	9.981	
4,100.0	4,088.5	4,095.6	4,085.0	10.5	10.2	-118.74	-65.7	-252.3	204.0	183.6	20.41	9.996	
4,200.0	4,188.2	4,195.4	4,184.5	10.7	10.5	-118.51	-67.5	-260.1	209.6	188.7	20.94	10.010	
4,300.0	4,287.9	4,295.2	4,284.0	11.0	10.8	-118.30	-69.2	-268.0	215.2	193.7	21.47	10.024	
4,400.0	4,387.5	4,395.1	4,383.5	11.3	11.0	-118.09	-71.0	-275.9	220.8	198.8	22.00	10.037	
4,500.0	4,487.2	4,494.9	4,483.0	11.6	11.3	-117.89	-72.7	-283.7	226.4	203.9	22.53	10.050	
4,600.0	4,586.9	4,594.8	4,582.5	11.8	11.6	-117.71	-74.5	-291.6	232.1	209.0	23.06	10.062	
4,700.0	4,686.6	4,694.6	4,682.1	12.1	11.9	-117.53	-76.2	-299.5	237.7	214.1	23.60	10.074	
4,800.0	4,786.2	4,795.7	4,782.9	12.4	12.1	-117.53	-77.8	-306.7	243.2	219.0	24.10	10.088	
4,900.0	4,886.0	4,897.6	4,884.7	12.6	12.3	-118.16	-78.7	-310.8	247.5	223.0	24.52	10.092	
5,000.0	4,985.9	4,998.8	4,985.9	12.8	12.5	-118.85	-78.9	-311.5	249.6	224.7	24.87	10.036	
5,100.0	5,085.9	5,098.8	5,085.9	12.9	12.6	179.64	-78.9	-311.5	249.9	224.7	25.21	9.914	

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

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Offset Design Piceance 28-05 - Piceance Federal 28-07W - Slot B-4 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

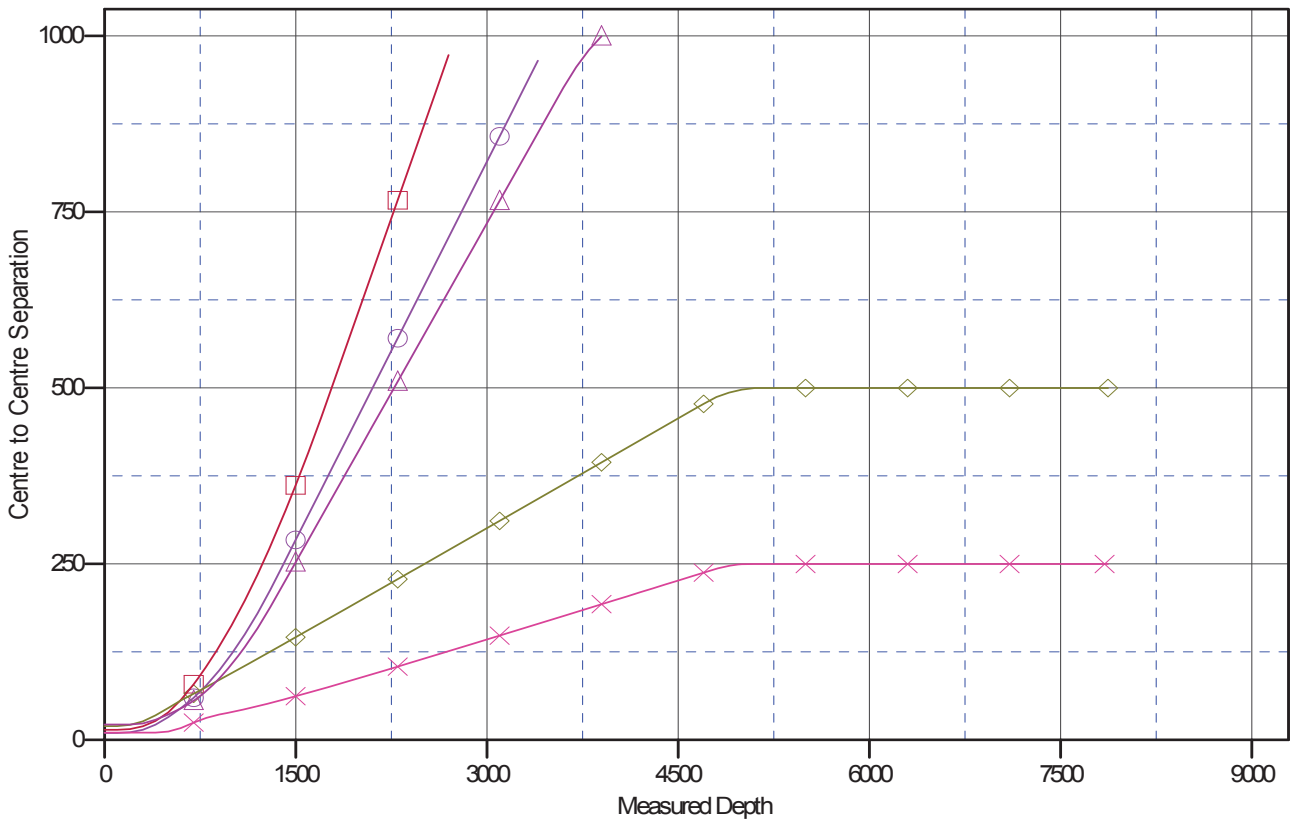
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,185.9	5,198.8	5,185.9	13.1	12.8	179.64	-78.9	-311.5	249.9	224.3	25.58	9.771	
5,300.0	5,285.9	5,298.8	5,285.9	13.3	13.0	179.64	-78.9	-311.5	249.9	224.0	25.95	9.631	
5,400.0	5,385.9	5,398.8	5,385.9	13.5	13.2	179.64	-78.9	-311.5	249.9	223.6	26.32	9.494	
5,500.0	5,485.9	5,498.8	5,485.9	13.7	13.3	179.64	-78.9	-311.5	249.9	223.2	26.70	9.360	
5,600.0	5,585.9	5,598.8	5,585.9	13.9	13.5	179.64	-78.9	-311.5	249.9	222.8	27.08	9.229	
5,700.0	5,685.9	5,698.8	5,685.9	14.1	13.7	179.64	-78.9	-311.5	249.9	222.4	27.46	9.101	
5,800.0	5,785.9	5,798.8	5,785.9	14.3	13.9	179.64	-78.9	-311.5	249.9	222.1	27.84	8.975	
5,900.0	5,885.9	5,898.8	5,885.9	14.5	14.1	179.64	-78.9	-311.5	249.9	221.7	28.23	8.853	
6,000.0	5,985.9	5,998.8	5,985.9	14.7	14.3	179.64	-78.9	-311.5	249.9	221.3	28.62	8.733	
6,100.0	6,085.9	6,098.8	6,085.9	14.8	14.5	179.64	-78.9	-311.5	249.9	220.9	29.00	8.616	
6,200.0	6,185.9	6,198.8	6,185.9	15.0	14.7	179.64	-78.9	-311.5	249.9	220.5	29.39	8.502	
6,300.0	6,285.9	6,298.8	6,285.9	15.2	14.8	179.64	-78.9	-311.5	249.9	220.1	29.79	8.390	
6,400.0	6,385.9	6,398.8	6,385.9	15.4	15.0	179.64	-78.9	-311.5	249.9	219.7	30.18	8.280	
6,500.0	6,485.9	6,498.8	6,485.9	15.6	15.2	179.64	-78.9	-311.5	249.9	219.3	30.58	8.173	
6,600.0	6,585.9	6,598.8	6,585.9	15.8	15.4	179.64	-78.9	-311.5	249.9	218.9	30.97	8.068	
6,700.0	6,685.9	6,698.8	6,685.9	16.0	15.6	179.64	-78.9	-311.5	249.9	218.5	31.37	7.966	
6,800.0	6,785.9	6,798.8	6,785.9	16.2	15.8	179.64	-78.9	-311.5	249.9	218.1	31.77	7.866	
6,900.0	6,885.9	6,898.8	6,885.9	16.4	16.0	179.64	-78.9	-311.5	249.9	217.7	32.17	7.768	
7,000.0	6,985.9	6,998.8	6,985.9	16.6	16.2	179.64	-78.9	-311.5	249.9	217.3	32.57	7.672	
7,100.0	7,085.9	7,098.8	7,085.9	16.8	16.4	179.64	-78.9	-311.5	249.9	216.9	32.98	7.578	
7,200.0	7,185.9	7,198.8	7,185.9	17.0	16.6	179.64	-78.9	-311.5	249.9	216.5	33.38	7.486	
7,300.0	7,285.9	7,298.8	7,285.9	17.2	16.8	179.64	-78.9	-311.5	249.9	216.1	33.79	7.396	
7,400.0	7,385.9	7,398.8	7,385.9	17.4	17.0	179.64	-78.9	-311.5	249.9	215.7	34.19	7.308	
7,500.0	7,485.9	7,498.8	7,485.9	17.7	17.2	179.64	-78.9	-311.5	249.9	215.3	34.60	7.222	
7,600.0	7,585.9	7,598.8	7,585.9	17.9	17.4	179.64	-78.9	-311.5	249.9	214.9	35.01	7.138	
7,700.0	7,685.9	7,698.8	7,685.9	18.1	17.6	179.64	-78.9	-311.5	249.9	214.5	35.42	7.055	
7,800.0	7,785.9	7,798.8	7,785.9	18.3	17.8	179.64	-78.9	-311.5	249.9	214.1	35.83	6.974	
7,845.1	7,831.0	7,843.9	7,831.0	18.4	17.9	179.64	-78.9	-311.5	249.9	213.9	36.02	6.938	
7,872.1	7,858.0	7,862.9	7,850.0	18.4	17.9	179.64	-78.9	-311.5	250.0	213.9	36.11	6.923	

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to Well @ 7578.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Piceance Federal 28-06W
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.44°

Ladder Plot



LEGEND

Piceance Federal 28-01M, Slot A-4, Design #1 V0
Piceance Federal 28-04W, Slot B-2, Design #1 V0
Piceance Federal 28-02W, Slot A-2, Design #1
Piceance Federal 28-01W, Slot A-3, Design #1 V0
Piceance Federal 28-07W, Slot B-4, Design #1 V0

Company:	Piceance Energy, LLC	**Local Co-ordinate Reference:**	Well Piceance Federal 28-06W
Project:	Mesa County, CO	**TVD Reference:**	Well @ 7578.0usft
Reference Site:	Piceance 28-05	**MD Reference:**	Well @ 7578.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Piceance Federal 28-06W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Slot B-3	**Database:**	EDMDBBW
Reference Design:	Design #1	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to Well @ 7578.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Piceance Federal 28-06W
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.44°