



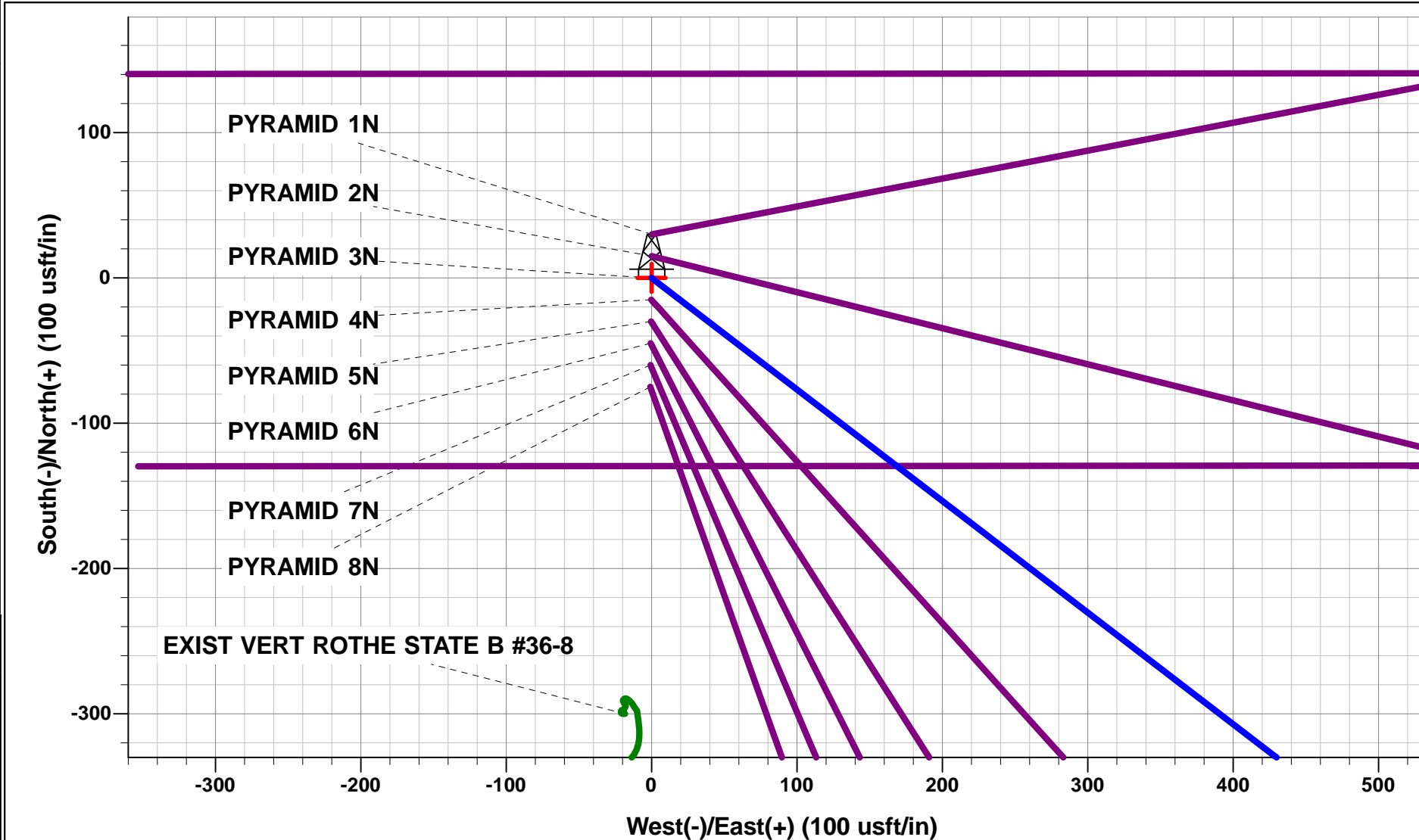
Project: WELD COUNTY, COLORADO (TRUE)
Site: SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)
Well: PYRAMID 3N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 1650ft FNL & 599ft FEL of Sec 36
1600.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2195.62	2200.00	12.00	127.51	-38.12	49.66	-47.85	62.60	EOB TO 12° INC
5077.18	5145.94	12.00	127.51	-411.05	535.53	-515.96	675.10	END OF TANGENT
5672.81	5745.94	0.00	0.00	-449.17	585.19	-563.80	737.70	EOD TO VERTICAL
5871.80	5944.93	0.00	0.00	-449.17	585.19	-563.80	737.70	KOP (8°/100ft BUR)
6588.00	7070.55	90.05	269.97	-449.55	-131.63	152.27	1454.52	EP: 2100ft FNL & 737ft FEL of Sec 36
6580.00	16764.84	90.05	269.97	-454.66	-9825.91	9836.42	11148.80	BHL: 2100ft FNL & 150ft FWL of Sec 35

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - PYRAMID 3N	5871.80	-449.17	585.19	40.357370°N	104.488424°W
EP - PYRAMID 3N	6588.00	-449.55	-131.63	40.357369°N	104.490996°W
BHL - PYRAMID 3N (P2)	6580.00	-454.66	-9825.91	40.357350°N	104.525780°W
SHL - PYRAMID 3N	0.00	0.00	0.00	40.358603°N	104.490523°W

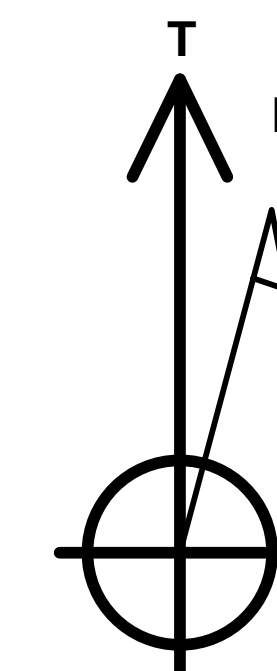


PROPOSED LOCAL COORDINATES:

SHL: 1650ft FNL & 599ft FEL of Sec 36

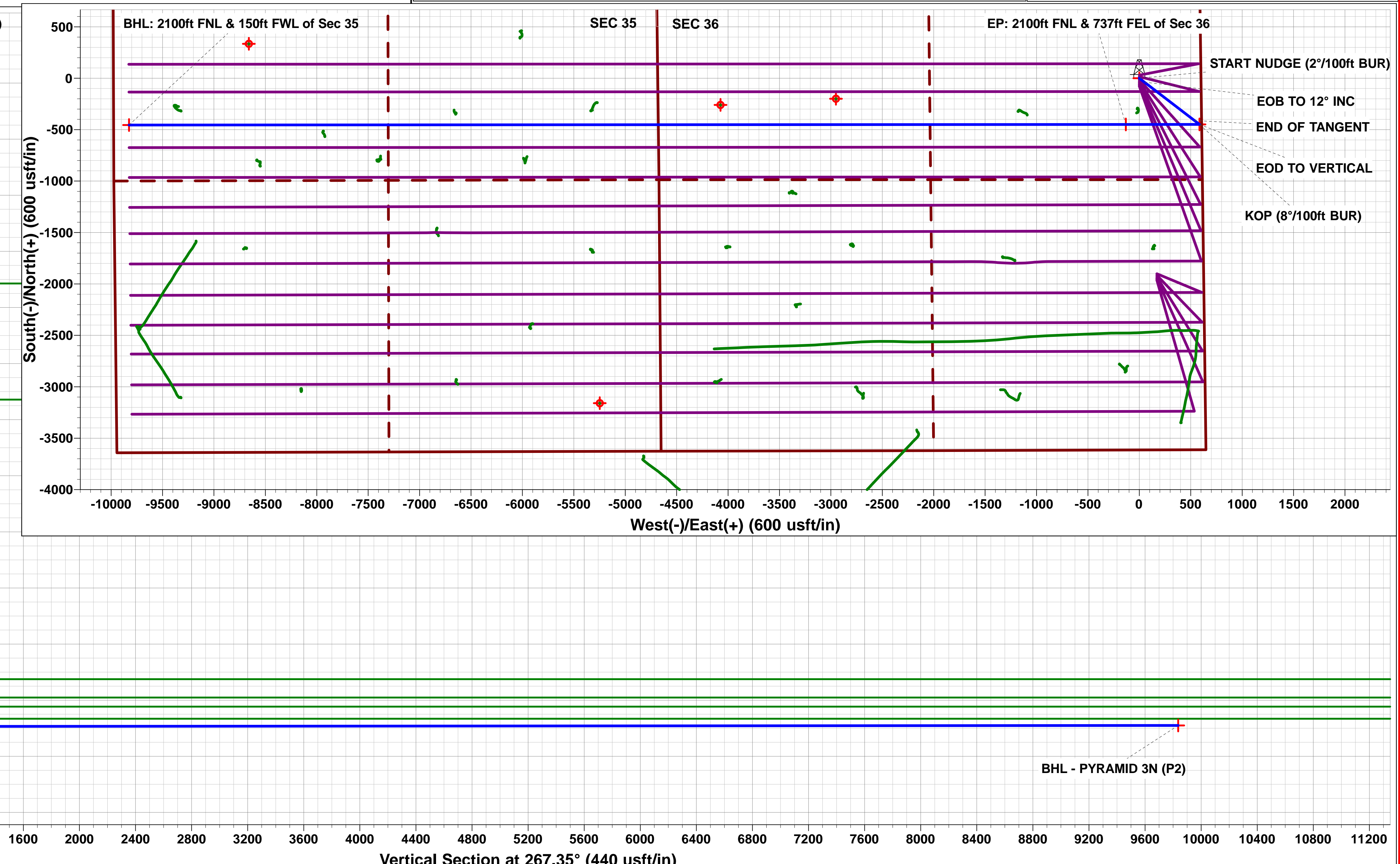
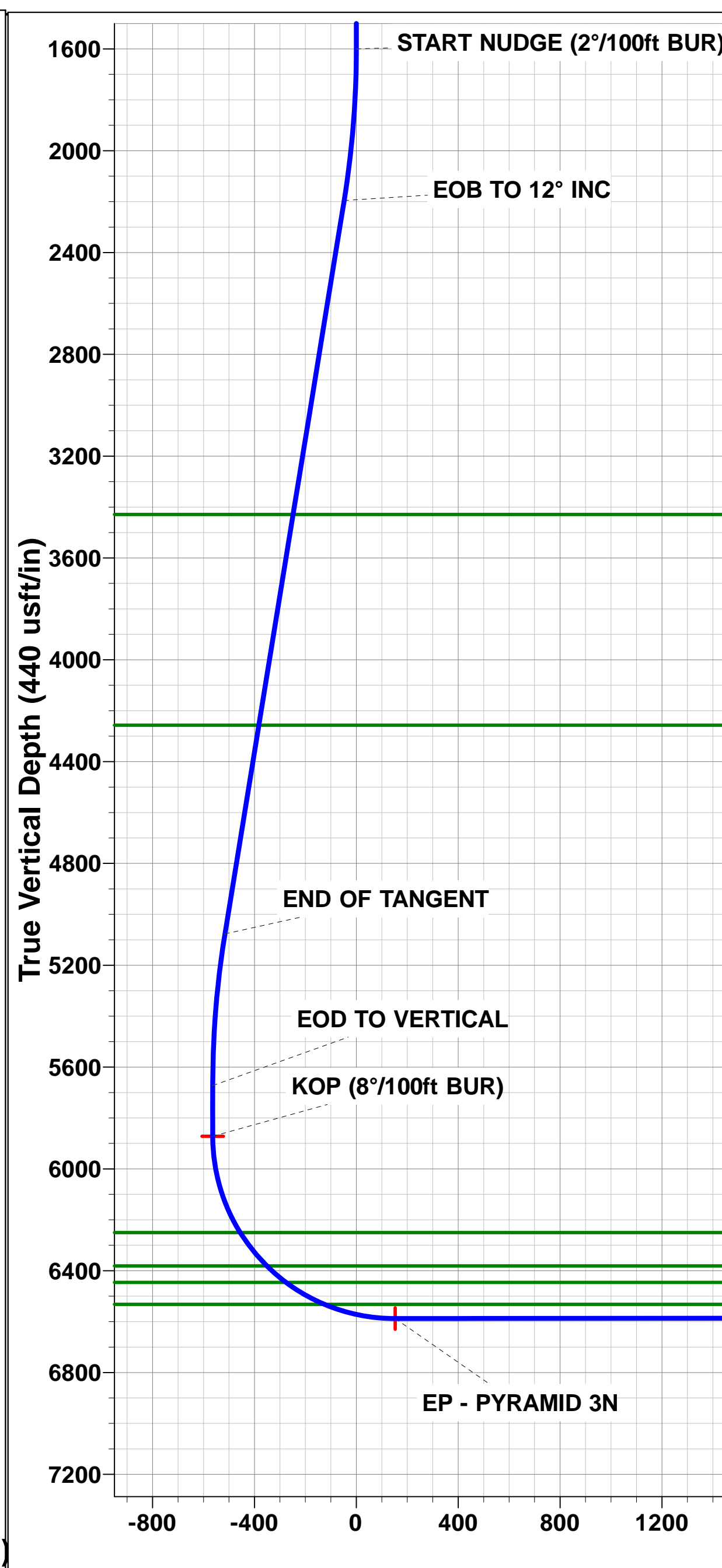
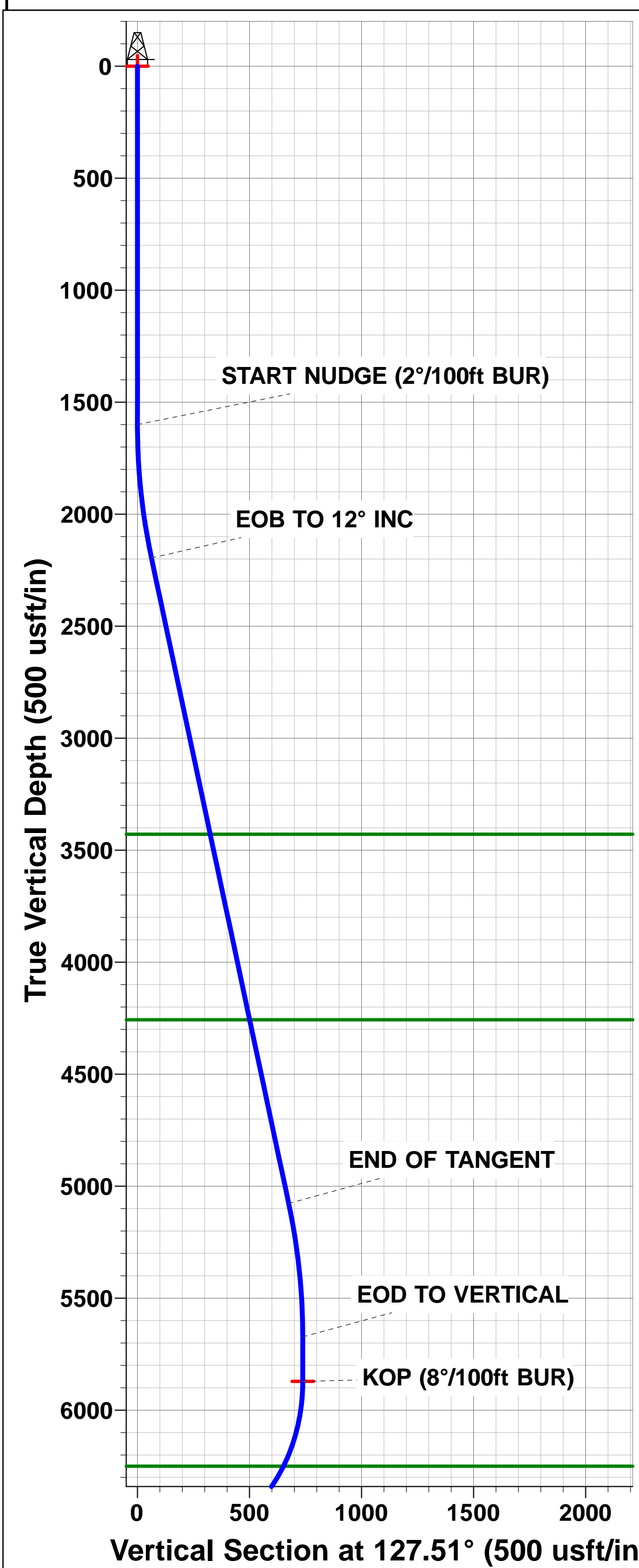
EP: 2100ft FNL & 737ft FEL of Sec 36

BHL: 2100ft FNL & 150ft FWL of Sec 35



Azimuths to True North
Magnetic North: 7.99°

Magnetic Field
Strength: 52324.0snT
Dip Angle: 66.85°
Date: 19/02/2018
Model: IGRF2015



PDC ENERGY

**WELD COUNTY, COLORADO (TRUE)
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)
PYRAMID 3N**

**ORIGINAL WELLBORE
PROPOSAL #2**

Anticollision Report

01 February, 2019



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well PYRAMID 3N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB-EST @ 4611.00usft (Original Well Elev)
Reference Site:	SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)	MD Reference:	KB-EST @ 4611.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	PYRAMID 3N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	01/02/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,764.84	PROPOSAL #2 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)						
PHARAOH 1N - ORIGINAL WELLBORE - PROPOSAL #	5,944.93	5,922.21	1,633.52	1,604.54	56.381	CC
PHARAOH 1N - ORIGINAL WELLBORE - PROPOSAL #	16,764.84	16,760.58	1,656.59	1,083.48	2.891	ES, SF
PHARAOH 2C - ORIGINAL WELLBORE - PROPOSAL #	5,944.93	5,939.08	1,923.55	1,892.37	61.690	CC
PHARAOH 2C - ORIGINAL WELLBORE - PROPOSAL #	16,764.84	16,834.83	1,947.88	1,375.32	3.402	ES, SF
PHARAOH 3N - ORIGINAL WELLBORE - PROPOSAL #	464.91	469.91	1,938.49	1,936.66	1,062.357	CC
PHARAOH 3N - ORIGINAL WELLBORE - PROPOSAL #	16,764.84	16,729.39	2,227.83	1,655.43	3.892	ES, SF
PHARAOH 4N - ORIGINAL WELLBORE - PROPOSAL #	364.91	369.91	1,953.43	1,952.06	1,420.497	CC
PHARAOH 4N - ORIGINAL WELLBORE - PROPOSAL #	400.00	400.00	1,953.44	1,951.92	1,283.749	ES
PHARAOH 4N - ORIGINAL WELLBORE - PROPOSAL #	16,764.84	16,837.62	2,526.61	1,954.13	4.413	SF
PHARAOH 5N - ORIGINAL WELLBORE - PROPOSAL #	264.91	269.91	1,968.37	1,967.44	2,126.491	CC
PHARAOH 5N - ORIGINAL WELLBORE - PROPOSAL #	300.00	300.00	1,968.38	1,967.30	1,835.942	ES
PHARAOH 5N - ORIGINAL WELLBORE - PROPOSAL #	16,764.84	16,732.69	2,812.73	2,242.08	4.929	SF
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)						
ABDN VERT HOSHIKO #1 - Wellbore #1 - Wellbore #1	12,246.94	6,591.03	1,240.35	1,079.57	7.715	CC
ABDN VERT HOSHIKO #1 - Wellbore #1 - Wellbore #1	12,300.00	6,590.88	1,241.49	1,079.22	7.651	ES
ABDN VERT HOSHIKO #1 - Wellbore #1 - Wellbore #1	12,500.00	6,590.34	1,265.90	1,098.05	7.542	SF
ABDN VERT ROTHE STATE B #36-15 - Wellbore #1 - W	8,098.52	6,550.00	2,614.28	2,567.48	55.854	CC
ABDN VERT ROTHE STATE B #36-15 - Wellbore #1 - W	8,200.00	6,550.00	2,616.25	2,566.80	52.906	ES
ABDN VERT ROTHE STATE B #36-15 - Wellbore #1 - W	12,300.00	6,531.62	4,948.34	4,785.94	30.470	SF
ABDN VERT ROTHE STATE B #36-16 - Wellbore #1 - W	7,052.13	6,550.00	2,348.44	2,325.40	101.947	CC
ABDN VERT ROTHE STATE B #36-16 - Wellbore #1 - W	7,100.00	6,550.00	2,348.92	2,325.08	98.547	ES
ABDN VERT ROTHE STATE B #36-16 - Wellbore #1 - W	15,900.00	6,338.10	9,151.09	8,888.74	34.881	SF
ABDN VERT STATE #1-36 - Wellbore #1 - Design #1	11,012.40	6,563.66	192.07	-63.51	0.751	Level 1, CC, ES, SF
EXIST DD ECKHARDT B #35-12 - Wellbore #1 - Wellbor	16,113.72	6,741.43	1,132.43	861.82	4.185	CC, ES
EXIST DD ECKHARDT B #35-12 - Wellbore #1 - Wellbor	16,200.00	6,741.71	1,135.71	862.68	4.160	SF
EXIST DD ECKHARDT B #35-13 - Wellbore #1 - Wellbor	16,261.35	6,655.28	2,648.23	2,373.82	9.651	CC
EXIST DD ECKHARDT B #35-13 - Wellbore #1 - Wellbor	16,300.00	6,655.05	2,648.52	2,373.02	9.614	ES
EXIST DD ECKHARDT B #35-13 - Wellbore #1 - Wellbor	16,764.84	6,652.21	2,695.67	2,407.14	9.343	SF
EXIST DD MARLEY C #1-28D - Wellbore #1 - Wellbore #	9,103.33	6,854.97	2,978.63	2,887.21	32.579	CC
EXIST DD MARLEY C #1-28D - Wellbore #1 - Wellbore #	9,200.00	6,856.90	2,980.20	2,886.13	31.681	ES
EXIST DD MARLEY C #1-28D - Wellbore #1 - Wellbore #	11,800.00	6,901.33	4,017.79	3,851.70	24.191	SF
EXIST DD MARLEY C #1-30D - Wellbore #1 - Wellbore #	11,762.02	6,692.18	3,220.74	3,058.23	19.819	CC
EXIST DD MARLEY C #1-30D - Wellbore #1 - Wellbore #	11,900.00	6,692.25	3,223.69	3,057.33	19.378	ES
EXIST DD MARLEY C #1-30D - Wellbore #1 - Wellbore #	13,600.00	6,693.16	3,708.28	3,494.35	17.335	SF
EXIST HZ SOONER STATE B #36-63HN - Wellbore #1 -	6,147.88	6,194.00	2,001.05	1,970.30	65.086	CC

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

Company:	PDC ENERGY	Local Co-ordinate Reference:	Well PYRAMID 3N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB-EST @ 4611.00usft (Original Well Elev)
Reference Site:	SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)	MD Reference:	KB-EST @ 4611.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	PYRAMID 3N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)						
EXIST HZ SOONER STATE B #36-63HN - Wellbore #1 -	11,200.00	11,055.00	2,183.67	1,925.56	8.460	ES
EXIST HZ SOONER STATE B #36-63HN - Wellbore #1 -	11,600.00	11,055.00	2,242.32	1,973.06	8.328	SF
EXIST VERT BAKER STATE B #36-11 - Wellbore #1 - W	9,723.52	6,567.29	1,185.59	1,095.03	13.091	CC, ES
EXIST VERT BAKER STATE B #36-11 - Wellbore #1 - W	10,200.00	6,564.25	1,277.75	1,174.01	12.317	SF
EXIST VERT BAKER STATE B #36-12 - Wellbore #1 - W	10,920.03	6,561.15	1,188.73	1,064.98	9.606	CC, ES
EXIST VERT BAKER STATE B #36-12 - Wellbore #1 - W	11,200.00	6,560.48	1,221.26	1,089.71	9.284	SF
EXIST VERT BAKER STATE B #36-13 - Wellbore #1 - W	11,005.02	6,600.00	2,476.31	2,350.10	19.620	CC
EXIST VERT BAKER STATE B #36-13 - Wellbore #1 - W	11,100.00	6,600.00	2,478.14	2,349.27	19.231	ES
EXIST VERT BAKER STATE B #36-13 - Wellbore #1 - W	12,400.00	6,558.56	2,841.85	2,676.69	17.207	SF
EXIST VERT BAKER STATE B #36-14 - Wellbore #1 - W	9,621.53	6,600.00	2,611.29	2,523.41	29.716	CC
EXIST VERT BAKER STATE B #36-14 - Wellbore #1 - W	9,700.00	6,600.00	2,612.46	2,522.43	29.015	ES
EXIST VERT BAKER STATE B #36-14 - Wellbore #1 - W	11,800.00	6,600.00	3,400.67	3,252.27	22.916	SF
EXIST VERT CLYNCKE STATE B #36-20 - Wellbore #1	10,278.24	6,550.00	673.13	567.19	6.354	CC
EXIST VERT CLYNCKE STATE B #36-20 - Wellbore #1	10,300.00	6,550.00	673.48	566.94	6.322	ES
EXIST VERT CLYNCKE STATE B #36-20 - Wellbore #1	10,400.00	6,550.00	684.05	574.74	6.258	SF
EXIST VERT CLYNCKE STATE B #36-25 - Wellbore #1	10,234.85	6,550.00	1,744.03	1,639.25	16.646	CC
EXIST VERT CLYNCKE STATE B #36-25 - Wellbore #1	10,300.00	6,550.00	1,745.24	1,638.66	16.375	ES
EXIST VERT CLYNCKE STATE B #36-25 - Wellbore #1	11,000.00	6,550.00	1,904.49	1,778.46	15.111	SF
EXIST VERT CPC-HOSHIKO #35-1 - Wellbore #1 - Well	15,636.60	6,608.48	1,191.89	935.94	4.657	CC
EXIST VERT CPC-HOSHIKO #35-1 - Wellbore #1 - Well	15,700.00	6,608.14	1,193.57	935.85	4.631	ES
EXIST VERT CPC-HOSHIKO #35-1 - Wellbore #1 - Well	15,800.00	6,607.60	1,203.04	942.50	4.618	SF
EXIST VERT ECKHARDT B #35-33 - Wellbore #1 - Well	16,662.35	6,616.26	1,983.72	1,699.20	6.972	CC
EXIST VERT ECKHARDT B #35-33 - Wellbore #1 - Well	16,700.00	6,617.47	1,984.08	1,698.50	6.948	ES
EXIST VERT ECKHARDT B #35-33 - Wellbore #1 - Well	16,764.84	6,619.59	1,986.37	1,698.97	6.912	SF
EXIST VERT HOSHIKO #2 - Wellbore #1 - Wellbore #1	13,582.08	6,603.83	2,477.61	2,279.21	12.488	CC
EXIST VERT HOSHIKO #2 - Wellbore #1 - Wellbore #1	13,700.00	6,604.52	2,480.42	2,278.72	12.297	ES
EXIST VERT HOSHIKO #2 - Wellbore #1 - Wellbore #1	14,400.00	6,608.84	2,609.13	2,387.81	11.789	SF
EXIST VERT HOSHIKO #35-10H4 - Wellbore #1 - Wellb	13,755.78	6,608.20	1,079.18	875.90	5.309	CC
EXIST VERT HOSHIKO #35-10H4 - Wellbore #1 - Wellb	13,800.00	6,608.03	1,080.09	875.57	5.281	ES
EXIST VERT HOSHIKO #35-10H4 - Wellbore #1 - Wellb	13,900.00	6,607.63	1,088.78	881.45	5.252	SF
EXIST VERT HOSHIKO #35-16H4 - Wellbore #1 - Desig	12,187.85	6,607.68	2,706.99	2,419.18	9.406	CC
EXIST VERT HOSHIKO #35-16H4 - Wellbore #1 - Desig	12,300.00	6,607.59	2,709.31	2,418.37	9.312	ES
EXIST VERT HOSHIKO #35-16H4 - Wellbore #1 - Desig	12,900.00	6,607.10	2,799.10	2,491.38	9.096	SF
EXIST VERT HOSHIKO B #35-14 - Wellbore #1 - Wellbo	15,091.23	6,640.78	2,565.25	2,324.77	10.667	CC
EXIST VERT HOSHIKO B #35-14 - Wellbore #1 - Wellbo	15,200.00	6,639.51	2,567.55	2,324.02	10.543	ES
EXIST VERT HOSHIKO B #35-14 - Wellbore #1 - Wellbo	15,900.00	6,630.81	2,689.71	2,426.53	10.220	SF
EXIST VERT HOSHIKO B #35-23 - Wellbore #1 - Wellbo	12,860.22	6,612.19	1,977.15	1,799.02	11.099	CC
EXIST VERT HOSHIKO B #35-23 - Wellbore #1 - Wellbo	12,900.00	6,612.41	1,977.55	1,798.31	11.033	ES
EXIST VERT HOSHIKO B #35-23 - Wellbore #1 - Wellbo	13,500.00	6,615.80	2,078.09	1,882.04	10.600	SF
EXIST VERT LOLOFF #35-6 - Wellbore #1 - Wellbore #1	14,860.55	6,594.90	106.19	-127.97	0.453	Level 1, CC, ES, SF
EXIST VERT LOLOFF #35-8 - Wellbore #1 - Wellbore #1	12,209.76	6,568.00	215.22	55.45	1.347	Level 3, CC, ES, SF
EXIST VERT LOLOFF #4 - Wellbore #1 - Wellbore #1	13,602.93	6,575.32	143.15	-55.88	0.719	Level 1, CC, ES, SF
EXIST VERT LOLOFF B #35-17 - Wellbore #1 - Wellbore	12,962.11	6,582.89	842.09	660.99	4.650	CC
EXIST VERT LOLOFF B #35-17 - Wellbore #1 - Wellbore	13,000.00	6,582.69	842.94	660.78	4.627	ES
EXIST VERT LOLOFF B #35-17 - Wellbore #1 - Wellbore	13,100.00	6,582.17	853.31	668.34	4.613	SF
EXIST VERT LOLOFF B #35-19 - Wellbore #1 - Design #	15,598.91	6,613.92	788.76	405.36	2.057	CC
EXIST VERT LOLOFF B #35-19 - Wellbore #1 - Design #	15,600.00	6,613.92	788.76	405.33	2.057	ES, SF
EXIST VERT LOLOFF B #35-20 - Wellbore #1 - Wellbore	15,487.02	6,603.78	399.21	147.23	1.584	CC
EXIST VERT LOLOFF B #35-20 - Wellbore #1 - Wellbore	15,500.00	6,603.68	399.42	147.08	1.583	ES, SF
EXIST VERT LOLOFF B #35-21 - Wellbore #1 - Wellbore	14,318.64	6,600.00	302.61	83.75	1.383	Level 3, CC, ES, SF
EXIST VERT LOLOFF B #35-22 - Wellbore #1 - Wellbore	12,893.97	6,587.45	309.50	130.54	1.729	CC
EXIST VERT LOLOFF B #35-22 - Wellbore #1 - Wellbore	12,900.00	6,587.35	309.55	130.42	1.728	ES, SF

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well PYRAMID 3N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB-EST @ 4611.00usft (Original Well Elev)
Reference Site:	SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)	MD Reference:	KB-EST @ 4611.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	PYRAMID 3N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)						
EXIST VERT ROTHE STATE B #36-10 - Wellbore #1 - W	8,150.34	6,550.00	1,317.70	1,269.71	27.456	CC
EXIST VERT ROTHE STATE B #36-10 - Wellbore #1 - W	8,200.00	6,550.00	1,318.64	1,269.35	26.754	ES
EXIST VERT ROTHE STATE B #36-10 - Wellbore #1 - W	9,100.00	6,550.00	1,624.25	1,550.81	22.116	SF
EXIST VERT ROTHE STATE B #36-7 - Wellbore #1 - We	8,029.49	6,500.00	114.94	75.27	2.897	CC, ES, SF
EXIST VERT ROTHE STATE B #36-8 - Wellbore #1 - We	6,956.76	6,500.00	125.27	104.48	6.026	CC, ES, SF
EXIST VERT ROTHE STATE B #36-9 - Wellbore #1 - We	6,779.06	6,505.72	1,179.08	1,159.69	60.828	CC, ES
EXIST VERT ROTHE STATE B #36-9 - Wellbore #1 - We	11,300.00	6,550.00	4,662.63	4,528.28	34.704	SF
EXIST VERT STATE #22-36 - Wellbore #1 - Design #1	9,889.45	6,578.60	251.79	28.23	1.126	Level 2, CC
EXIST VERT STATE #22-36 - Wellbore #1 - Design #1	9,900.00	6,578.59	252.01	28.15	1.126	Level 2, ES, SF
EXIST VERT STROH #1 - Wellbore #1 - Wellbore #1	16,282.70	6,400.00	268.75	74.11	1.381	Level 3, CC, ES, SF
PYRAMID 1N - ORIGINAL WELLBORE - PROPOSAL #2	1,600.00	1,600.00	30.03	23.11	4.341	CC
PYRAMID 1N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,746.30	590.19	18.47	1.032	Level 2, ES, SF
PYRAMID 2N - ORIGINAL WELLBORE - PROPOSAL #2	1,600.00	1,600.00	15.01	8.09	2.170	CC
PYRAMID 2N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,672.97	328.89	-228.96	0.590	Level 1, ES, SF
PYRAMID 4N - ORIGINAL WELLBORE - PROPOSAL #2	700.00	700.00	14.97	12.10	5.217	CC
PYRAMID 4N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,705.22	233.80	-306.91	0.432	Level 1, ES, SF
PYRAMID 5N - ORIGINAL WELLBORE - PROPOSAL #2	600.00	600.00	29.98	27.56	12.387	CC
PYRAMID 5N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,821.88	510.05	-61.48	0.892	Level 1, ES, SF
PYRAMID 6N - ORIGINAL WELLBORE - PROPOSAL #2	500.00	500.00	45.00	43.02	22.826	CC, ES
PYRAMID 6N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,812.00	805.19	235.85	1.414	Level 3, SF
PYRAMID 7N - ORIGINAL WELLBORE - PROPOSAL #2	400.00	400.00	59.97	58.45	39.410	CC, ES
PYRAMID 7N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,943.86	1,056.53	484.92	1.848	SF
PYRAMID 8N - ORIGINAL WELLBORE - PROPOSAL #2	300.00	300.00	74.98	73.91	69.935	CC, ES
PYRAMID 8N - ORIGINAL WELLBORE - PROPOSAL #2	16,764.84	16,978.48	1,353.40	782.24	2.370	SF

Offset Design NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH) - PHARAOH 1N - ORIGINAL WELLBORE - PROPO												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	5.00	5.00	0.00	0.00	174.88	-1,901.03	170.41	1,908.65				
100.00	100.00	105.00	105.00	0.09	0.10	174.88	-1,901.03	170.41	1,908.65	1,908.46	0.18	N/A	
200.00	200.00	205.00	205.00	0.31	0.32	174.88	-1,901.03	170.41	1,908.65	1,908.01	0.63	3,011.244	
300.00	300.00	305.00	305.00	0.54	0.55	174.88	-1,901.03	170.41	1,908.65	1,907.56	1.08	1,761.766	
400.00	400.00	405.00	405.00	0.76	0.77	174.88	-1,901.03	170.41	1,908.65	1,907.12	1.53	1,245.119	
500.00	500.00	505.00	505.00	0.99	1.00	174.88	-1,901.03	170.41	1,908.65	1,906.67	1.98	962.779	
600.00	600.00	605.00	605.00	1.21	1.22	174.88	-1,901.03	170.41	1,908.65	1,906.22	2.43	784.816	
700.00	700.00	705.00	705.00	1.44	1.45	174.88	-1,901.03	170.41	1,908.65	1,905.77	2.88	662.380	
800.00	800.00	805.00	805.00	1.66	1.67	174.88	-1,901.03	170.41	1,908.65	1,905.32	3.33	572.990	
900.00	900.00	905.00	905.00	1.88	1.90	174.88	-1,901.03	170.41	1,908.65	1,904.87	3.78	504.858	
1,000.00	1,000.00	1,005.00	1,005.00	2.11	2.12	174.88	-1,901.03	170.41	1,908.65	1,904.42	4.23	451.207	
1,100.00	1,100.00	1,105.00	1,105.00	2.33	2.35	174.88	-1,901.03	170.41	1,908.65	1,903.97	4.68	407.863	
1,200.00	1,200.00	1,205.00	1,205.00	2.56	2.57	174.88	-1,901.03	170.41	1,908.65	1,903.52	5.13	372.117	
1,300.00	1,300.00	1,305.00	1,305.00	2.78	2.79	174.88	-1,901.03	170.41	1,908.65	1,903.07	5.58	342.132	
1,400.00	1,400.00	1,405.00	1,405.00	3.01	3.02	174.88	-1,901.03	170.41	1,908.65	1,902.62	6.03	316.619	
1,500.00	1,500.00	1,505.00	1,505.00	3.23	3.24	174.88	-1,901.03	170.41	1,908.65	1,902.17	6.48	294.646	
1,564.91	1,564.91	1,569.91	1,569.91	3.38	3.39	174.88	-1,901.03	170.41	1,908.65	1,901.88	6.77	281.946	
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	174.88	-1,901.03	170.41	1,908.65	1,901.74	6.92	275.975	
1,700.00	1,699.98	1,680.21	1,680.20	3.66	3.62	47.38	-1,901.46	171.44	1,908.15	1,900.87	7.28	262.026	

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