

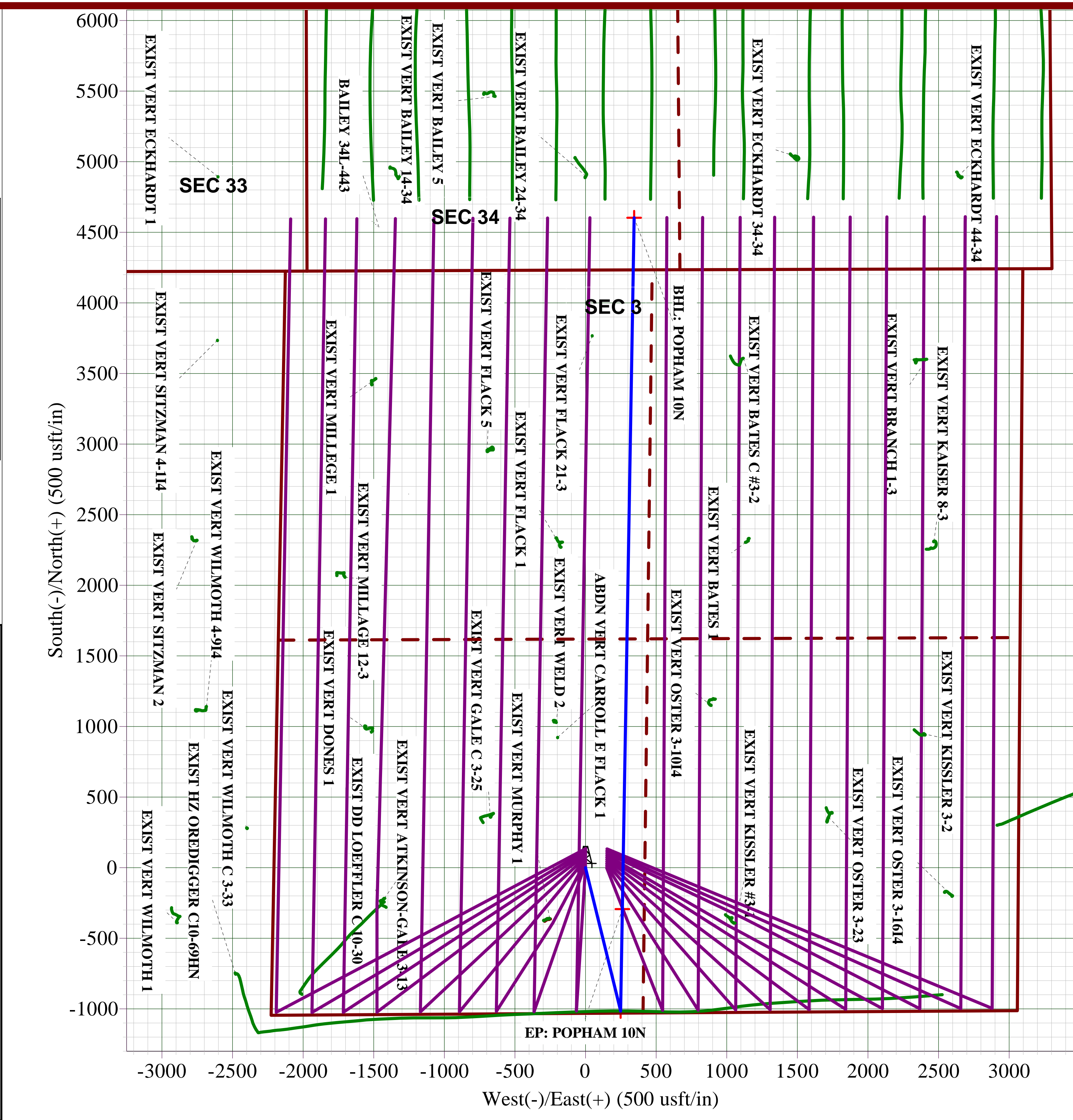
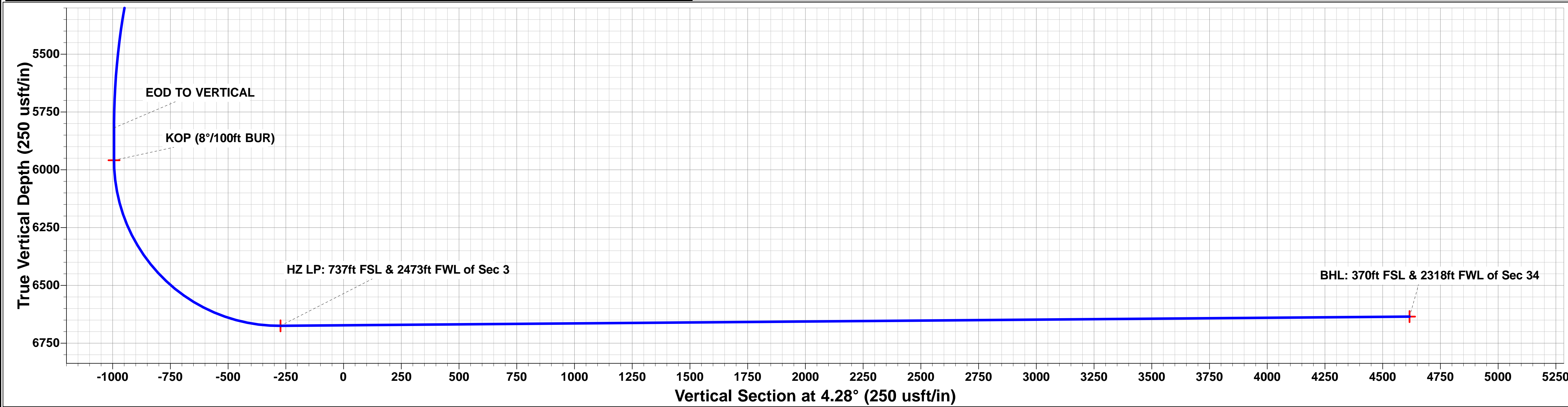
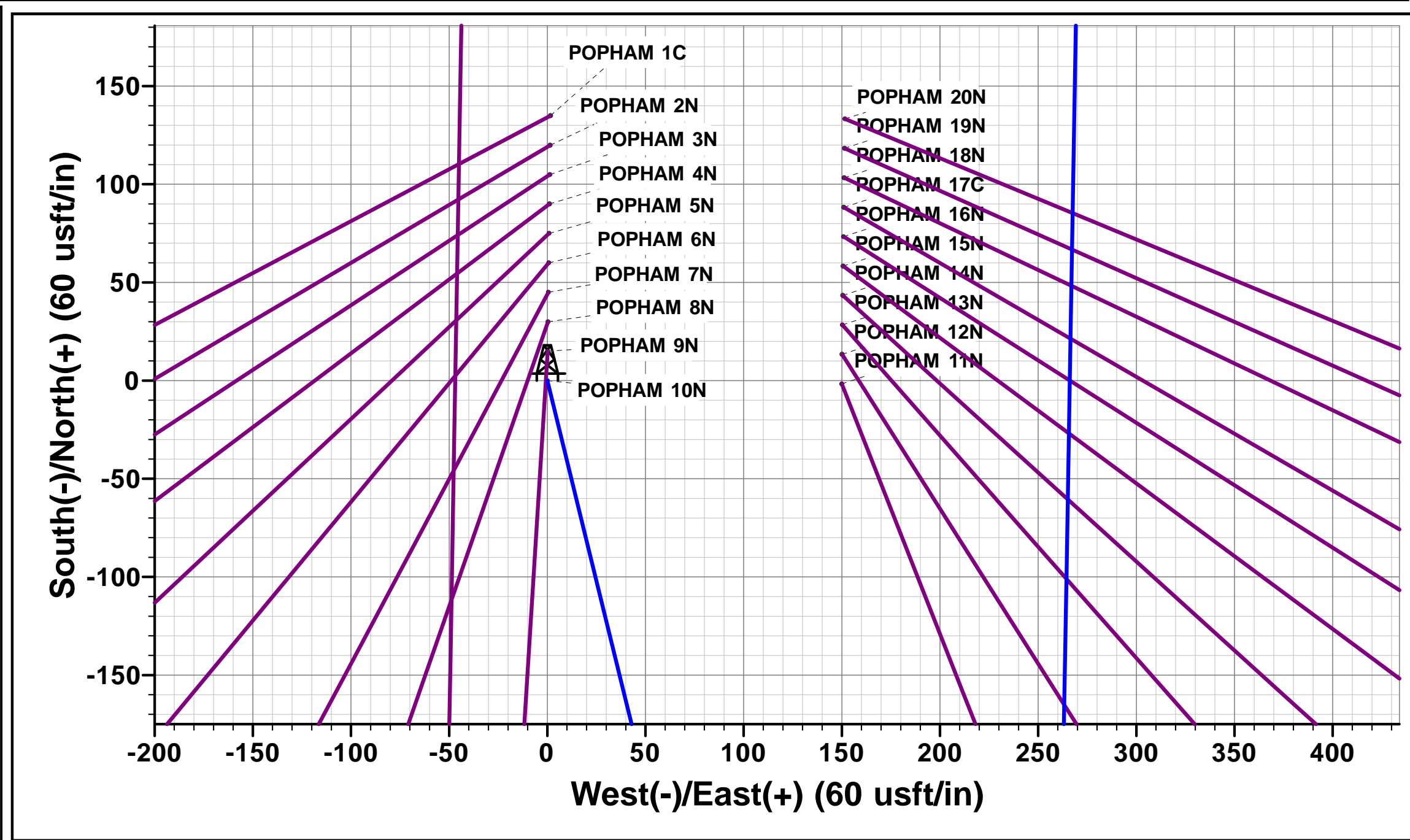
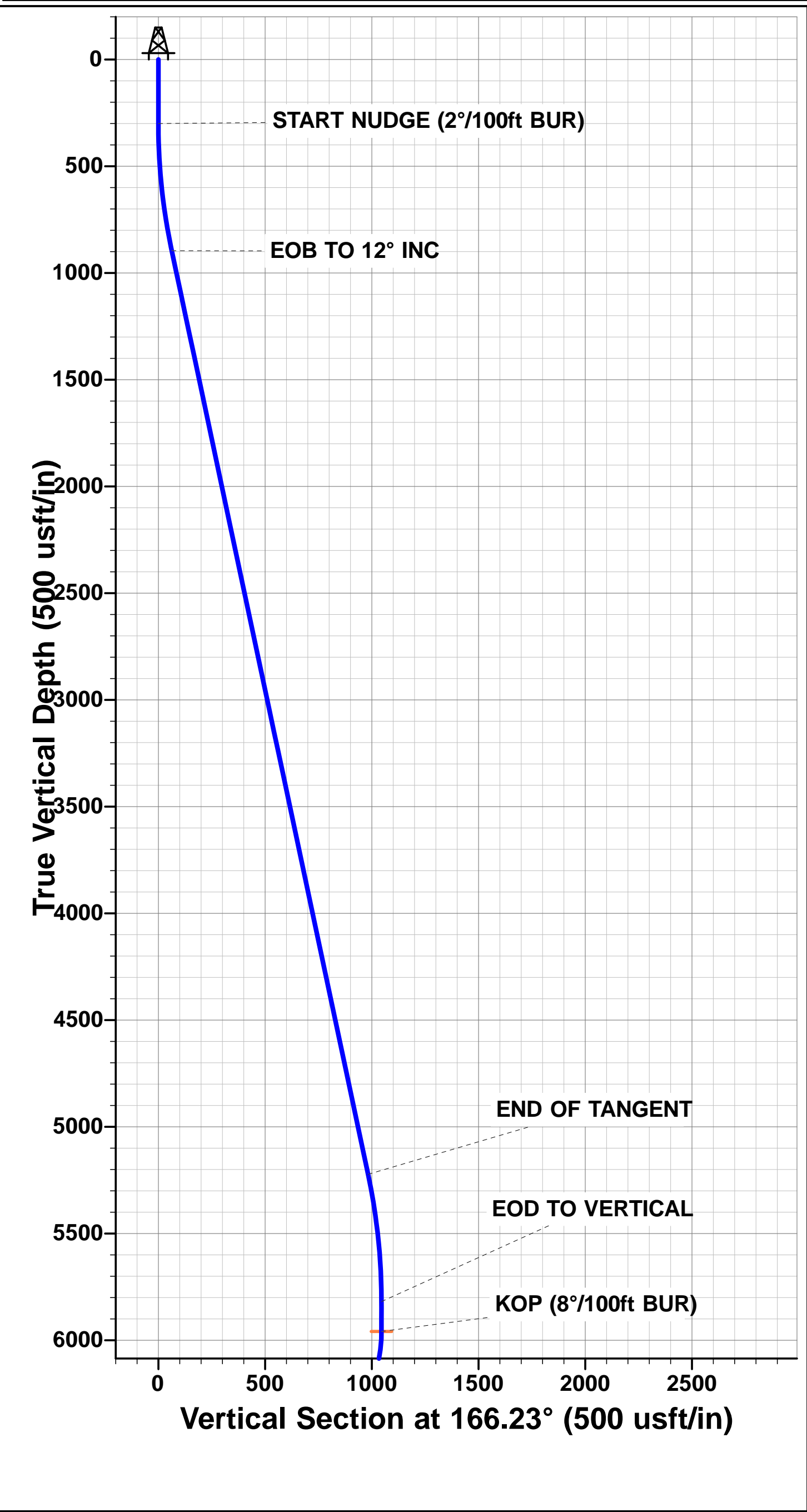


Project: WELD COUNTY, COLORADO  
Site: SE SW SEC. 3 T4N R64W 6th P.M.  
Well: POPHAM 10N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

ANNOTATIONS								
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1032ft FSL & 2206ft FWL of Sec 3
300.0	300.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
895.8	900.2	12.00	166.23	-60.8	14.9	-59.6	62.6	EOB TO 12° INC
5223.0	5324.1	12.00	166.23	-954.5	234.0	-934.3	982.7	END OF TANGENT
5818.8	5924.3	0.00	0.00	-1015.3	248.9	-993.9	1045.4	EOD TO VERTICAL
5958.8	6064.3	0.00	0.00	-1015.3	248.9	-993.9	1045.4	KOP (8°/100ft BUR)
6675.0	7195.2	90.47	0.97	-293.3	261.1	-273.0	1767.4	HZ LP: 737ft FSL & 2473ft FWL of Sec 3
6635.0	12092.8	90.47	0.98	4603.4	344.3	4616.3	6664.9	BHL: 370ft FSL & 2318ft FWL of Sec 34

PROPOSED LOCAL COORDINATES:	
SHL: 1032ft FSL & 2206ft FWL of Sec 3	
HZ LP: 737ft FSL & 2473ft FWL of Sec 3	
BHL: 370ft FSL & 2318ft FWL of Sec 34	

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP: POPHAM 10N	5958.8	-1015.3	248.9	40.334169	-104.537158
EP: POPHAM 10N	6675.0	-293.3	261.1	40.336151	-104.537114
BHL: POPHAM 10N	6635.0	4603.4	344.3	40.349592	-104.536815



# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SE SW SEC. 3 T4N R64W 6th P.M.  
POPHAM 10N**

**ORIGINAL WELLBORE  
PROPOSAL #1**

## **Anticollision Report**

**19 September, 2017**



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well POPHAM 10N
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4685.0usft (Original Well Elev)
<b>Reference Site:</b>	SE SW SEC. 3 T4N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4685.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	POPHAM 10N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.0usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	19/09/2017		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,092.8	PROPOSAL #1 (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
Offset Well - Wellbore - Design						
SE SW SEC. 3 T4N R64W 6th P.M.						
POPHAM 11N - ORIGINAL WELLBORE - PROPOSAL #	300.0	297.0	150.0	148.9	140.761	CC
POPHAM 11N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,139.5	242.3	57.5	1.311	Level 3, ES, SF
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	445.9	442.9	150.4	148.7	89.857	CC
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	500.0	495.7	150.5	148.7	79.794	ES
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,100.8	485.1	296.5	2.572	SF
POPHAM 13N - ORIGINAL WELLBORE - PROPOSAL #	505.8	502.5	152.7	150.8	78.791	CC, ES
POPHAM 13N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,214.0	754.3	567.1	4.029	SF
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	300.0	297.0	156.6	155.6	147.019	CC
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	500.0	496.8	157.1	155.2	82.110	ES
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,207.3	995.0	810.9	5.406	SF
POPHAM 15N - ORIGINAL WELLBORE - PROPOSAL #	300.0	298.0	161.6	160.5	151.339	CC
POPHAM 15N - ORIGINAL WELLBORE - PROPOSAL #	400.0	398.0	161.8	160.3	108.450	ES
POPHAM 15N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,351.7	1,272.3	1,085.0	6.793	SF
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	300.0	298.0	167.7	166.7	157.103	CC
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	400.0	398.0	168.1	166.6	112.654	ES
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,406.1	1,529.8	1,341.6	8.126	SF
POPHAM 17C - ORIGINAL WELLBORE - PROPOSAL #	300.0	298.0	174.9	173.9	163.862	CC, ES
POPHAM 17C - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,632.8	1,798.8	1,611.5	9.602	SF
POPHAM 18N - ORIGINAL WELLBORE - PROPOSAL #	300.0	298.0	183.2	182.1	171.556	CC, ES
POPHAM 18N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,640.5	2,054.7	1,862.2	10.670	SF
POPHAM 19N - ORIGINAL WELLBORE - PROPOSAL #	300.0	298.0	192.1	191.1	179.964	CC, ES
POPHAM 19N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,814.8	2,345.2	2,156.3	12.415	SF
POPHAM 1C - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	135.0	133.9	125.878	CC, ES
POPHAM 1C - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,832.6	2,439.9	2,264.1	13.881	SF
POPHAM 20N - ORIGINAL WELLBORE - PROPOSAL #	300.0	298.0	201.8	200.8	188.863	CC, ES
POPHAM 20N - ORIGINAL WELLBORE - PROPOSAL #	12,092.8	12,918.5	2,566.6	2,377.3	13.558	SF
POPHAM 2N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	119.9	118.8	111.832	CC, ES
POPHAM 2N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,551.9	2,185.5	2,001.6	11.885	SF
POPHAM 3N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	105.0	103.9	97.902	CC, ES
POPHAM 3N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,502.5	1,964.8	1,780.6	10.667	SF
POPHAM 4N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	90.0	88.9	83.936	CC, ES
POPHAM 4N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,369.5	1,690.6	1,506.6	9.188	SF
POPHAM 5N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	75.0	73.9	69.931	CC, ES
POPHAM 5N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,319.8	1,419.4	1,234.6	7.679	SF
POPHAM 6N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	60.0	58.9	55.935	CC, ES
POPHAM 6N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,189.4	1,141.7	959.3	6.259	SF
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	45.0	43.9	41.968	CC, ES

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



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well POPHAM 10N
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4685.0usft (Original Well Elev)
<b>Reference Site:</b>	SE SW SEC. 3 T4N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4685.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	POPHAM 10N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

## 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
SE SW SEC. 3 T4N R64W 6th P.M.						
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,204.0	882.6	696.9	4.754	SF
POPHAM 8N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	300.0	29.9	28.9	27.933	CC, ES
POPHAM 8N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,123.9	612.8	423.9	3.243	SF
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	300.0	299.0	15.0	13.9	13.996	CC, ES
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	12,092.8	12,138.8	320.6	134.3	1.721	SF
SE SW SEC. 3 T4N R64W 6th P.M. (OFFSETS FOR POPHAM)						
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	6,064.3	5,923.7	1,006.3	985.8	49.050	ES, SF
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	6,068.9	5,928.3	1,006.3	985.9	49.438	CC
EXIST DD HOFFMAN C 02-33D - Wellbore #1 - Wellbore	7,834.9	7,507.0	2,649.4	2,598.6	52.148	CC, ES
EXIST DD HOFFMAN C 02-33D - Wellbore #1 - Wellbore	11,100.0	7,450.5	4,204.3	4,100.2	40.415	SF
EXIST HZ SUDEN 34M-223 - Wellbore #1 - Wellbore #1	12,092.8	11,092.0	785.6	611.9	4.522	CC, ES, SF
EXIST HZ SUDEN 34M-423 - Wellbore #1 - Wellbore #1	12,092.8	11,065.0	669.3	506.3	4.106	CC, ES, SF
EXIST HZ SUDEN 34R-203 - Wellbore #1 - Wellbore #1	12,092.8	11,081.0	1,487.1	1,313.8	8.582	CC, ES, SF
EXIST HZ SUDEN 34R-323 - Wellbore #1 - Wellbore #1	12,092.8	11,162.0	2,052.0	1,876.6	11.696	CC, ES, SF
EXIST HZ SUDEN 34R-343 - Wellbore #1 - Wellbore #1	12,092.8	11,135.0	1,238.4	1,065.2	7.151	CC, ES, SF
EXIST HZ SUDEN 34R-423 - Wellbore #1 - Wellbore #1	12,092.8	11,245.0	1,890.9	1,716.0	10.815	CC, ES, SF
EXIST HZ SUDEN 34U-243 - Wellbore #1 - Wellbore #1	12,092.8	11,118.0	2,547.7	2,372.1	14.510	CC, ES, SF
EXIST HZ SUDEN 34U-403 - Wellbore #1 - Wellbore #1	12,092.8	11,309.0	2,892.7	2,717.4	16.496	CC, ES, SF
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	9,835.1	6,622.1	853.0	802.1	16.749	CC, ES
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	10,100.0	6,620.1	893.2	837.4	15.998	SF
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	11,115.9	6,635.1	702.7	627.3	9.314	CC, ES
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	11,200.0	6,638.4	707.7	630.7	9.185	SF
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	11,109.5	6,590.2	2,015.0	1,940.0	26.861	CC, ES
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	12,092.8	6,544.3	2,241.8	2,147.7	23.838	SF
EXIST VERT ECKHARDT 34-34 - Wellbore #1 - Wellbor	12,092.8	6,475.0	1,200.0	1,106.2	12.793	CC, ES, SF
EXIST VERT ECKHARDT 44-34 - Wellbore #1 - Wellbor	12,092.8	6,300.0	2,322.9	2,229.2	24.791	CC, ES, SF
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	9,815.4	6,650.0	516.1	465.5	10.206	CC, ES
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	9,900.0	6,650.0	523.0	470.8	10.034	SF
EXIST VERT FLACK 5 - Wellbore #1 - Wellbore #1	10,418.7	6,625.5	1,012.4	950.6	16.406	CC, ES
EXIST VERT FLACK 5 - Wellbore #1 - Wellbore #1	10,700.0	6,624.4	1,050.7	983.7	15.674	SF
EXIST VERT GALE C 3-25 - Wellbore #1 - Wellbore #1	313.2	300.5	763.0	762.1	867.529	CC, ES
EXIST VERT GALE C 3-25 - Wellbore #1 - Wellbore #1	8,600.0	6,649.0	1,283.5	1,253.8	43.221	SF
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	9,779.5	6,750.0	2,112.2	2,062.3	42.389	CC
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	9,800.0	6,750.0	2,112.3	2,062.1	42.076	ES
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	11,500.0	6,750.0	2,724.2	2,641.8	33.066	SF
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	7,150.0	6,648.4	730.9	709.1	33.660	SF
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	7,167.6	6,649.4	730.6	708.9	33.662	CC, ES
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	8,496.2	6,747.0	2,051.2	2,022.7	72.087	CC
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	8,500.0	6,747.3	2,051.2	2,022.7	71.957	ES
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	11,800.0	6,800.0	3,886.8	3,798.6	44.050	SF
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	1,948.2	1,898.1	350.8	343.0	44.817	CC
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	2,000.0	1,949.0	350.9	342.9	43.444	ES
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	7,082.9	6,500.0	575.4	554.0	26.885	SF
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	8,692.8	6,622.3	631.8	600.7	20.307	CC
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	8,700.0	6,622.3	631.9	600.6	20.238	ES
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	8,900.0	6,622.6	664.9	630.5	19.336	SF
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	7,352.4	6,595.6	2,280.3	2,259.2	108.208	CC, ES
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	12,092.8	6,548.4	5,260.0	5,165.9	55.914	SF
EXIST VERT OSTER 3-23 - Wellbore #1 - Wellbore #1	7,938.5	6,500.0	1,437.1	1,414.9	64.596	CC, ES
EXIST VERT OSTER 3-23 - Wellbore #1 - Wellbore #1	10,500.0	6,500.0	2,937.0	2,873.7	46.405	SF
EXIST VERT WELD 2 - Wellbore #1 - Wellbore #1	8,523.3	6,681.3	503.6	474.9	17.569	CC, ES
EXIST VERT WELD 2 - Wellbore #1 - Wellbore #1	8,700.0	6,679.9	533.7	502.4	17.065	SF

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

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well POPHAM 10N
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4685.0usft (Original Well Elev)
<b>Reference Site:</b>	SE SW SEC. 3 T4N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4685.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	POPHAM 10N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
SW SW SEC. 34 T5N R64W 6th P.M.						
ABDN VERT CARROLL E FLACK 1 - Wellbore #1 - Desi	8,403.6	6,659.1	479.5	321.3	3.031	CC, ES, SF
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	345.5	355.1	1,470.8	1,469.8	1,511.796	CC
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	500.0	510.2	1,471.1	1,469.6	1,027.674	ES
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	12,092.8	6,693.1	5,980.7	5,870.6	54.316	SF
EXIST HZ CHESNUT 27G-203 - Wellbore #1 - Wellbore	12,092.8	13,769.0	2,217.9	1,985.9	9.559	CC, ES, SF
EXIST HZ CHESNUT 27G-423 - Wellbore #1 - Wellbore	12,092.8	13,972.0	1,861.9	1,629.8	8.022	CC, ES, SF
EXIST HZ CHESNUT 27K-203 - Wellbore #1 - Wellbore	12,092.8	13,900.0	1,171.5	940.1	5.062	CC, ES, SF
EXIST HZ CHESNUT 27K-323 - Wellbore #1 - Wellbore	12,092.8	14,120.0	572.9	353.7	2.614	CC, ES, SF
EXIST HZ CHESNUT 27K-343 - Wellbore #1 - Wellbore	12,092.8	13,920.0	1,529.9	1,297.6	6.585	CC, ES, SF
EXIST HZ CHESNUT 27K-403 - Wellbore #1 - Wellbore	12,092.8	14,160.0	891.2	674.6	4.115	CC, ES, SF
EXIST HZ CHESNUT 27O-243 - Wellbore #1 - Wellbore	12,092.8	14,066.0	244.6	24.5	1.111	Level 2, CC, ES, SF
EXIST HZ CHESNUT 27O-303 - Wellbore #1 - Wellbore	12,092.8	14,196.0	182.5	-20.5	0.899	Level 1, CC, ES, SF
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,550.0	8,966.9	272.5	203.6	3.958	SF
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,600.0	8,968.0	265.2	200.0	4.068	ES
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,603.7	8,968.1	265.1	200.2	4.085	CC
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	425.1	420.8	1,438.5	1,437.3	1,227.470	CC, ES
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	12,092.8	6,631.6	5,187.3	5,093.4	55.234	SF
EXIST VERT BAILEY 14-34 - Wellbore #1 - Wellbore #1	12,092.8	6,525.0	1,767.4	1,673.5	18.809	CC, ES, SF
EXIST VERT BAILEY 24-34 - Wellbore #1 - Wellbore #1	12,092.8	6,500.0	606.7	514.6	6.586	CC, ES, SF
EXIST VERT BAILEY 5 - Wellbore #1 - Wellbore #1	12,092.8	6,613.2	1,379.0	1,284.5	14.601	CC, ES, SF
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	0.0	0.0	1,794.5			
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	300.0	292.1	1,795.1	1,794.3	2,169.109	ES
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	11,200.0	6,662.2	3,301.1	3,224.5	43.075	SF
EXIST VERT ECKHARDT 1 - Wellbore #1 - Design #1	12,092.8	6,633.0	2,961.8	2,737.3	13.190	CC, ES, SF
EXIST VERT FLACK 21-3 - Wellbore #1 - Design #1	11,252.7	6,631.8	282.5	74.2	1.356	Level 3, CC, ES, SF
EXIST VERT MILLAGE 12-3 - Wellbore #1 - Wellbore #1	9,523.0	6,660.6	2,062.7	2,017.5	45.602	CC, ES
EXIST VERT MILLAGE 12-3 - Wellbore #1 - Wellbore #1	11,400.0	6,634.8	2,788.8	2,708.3	34.636	SF
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	10,877.9	6,646.0	1,837.0	1,766.6	26.088	CC
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	10,900.0	6,645.8	1,837.2	1,766.3	25.935	ES
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	11,800.0	6,637.4	2,055.4	1,967.2	23.308	SF
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	1,975.7	1,925.1	346.3	338.4	43.570	CC
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	2,000.0	1,949.0	346.4	338.3	42.937	ES
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	7,077.9	6,500.0	569.6	548.2	26.620	SF
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	9,764.6	6,525.0	3,093.9	3,044.5	62.543	CC
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	9,800.0	6,525.0	3,094.1	3,044.0	61.741	ES
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	12,092.8	6,525.0	3,872.1	3,778.3	41.277	SF
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,174.9	6,655.5	2,935.2	2,728.1	14.175	CC
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,200.0	6,655.3	2,935.3	2,727.8	14.143	ES
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	12,000.0	6,648.8	3,049.0	2,826.1	13.679	SF
EXIST VERT WILMOTH 1 - Wellbore #1 - Wellbore #1	0.0	0.0	2,916.9			
EXIST VERT WILMOTH 1 - Wellbore #1 - Wellbore #1	12,092.8	6,760.0	5,884.1	5,790.0	62.540	SF
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	0.0	0.0	2,917.2			
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	12,092.8	6,664.8	4,656.5	4,562.5	49.497	SF
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	323.1	329.9	2,415.8	2,414.9	2,763.786	CC, ES
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	12,092.8	6,651.3	5,119.1	5,025.5	54.726	SF