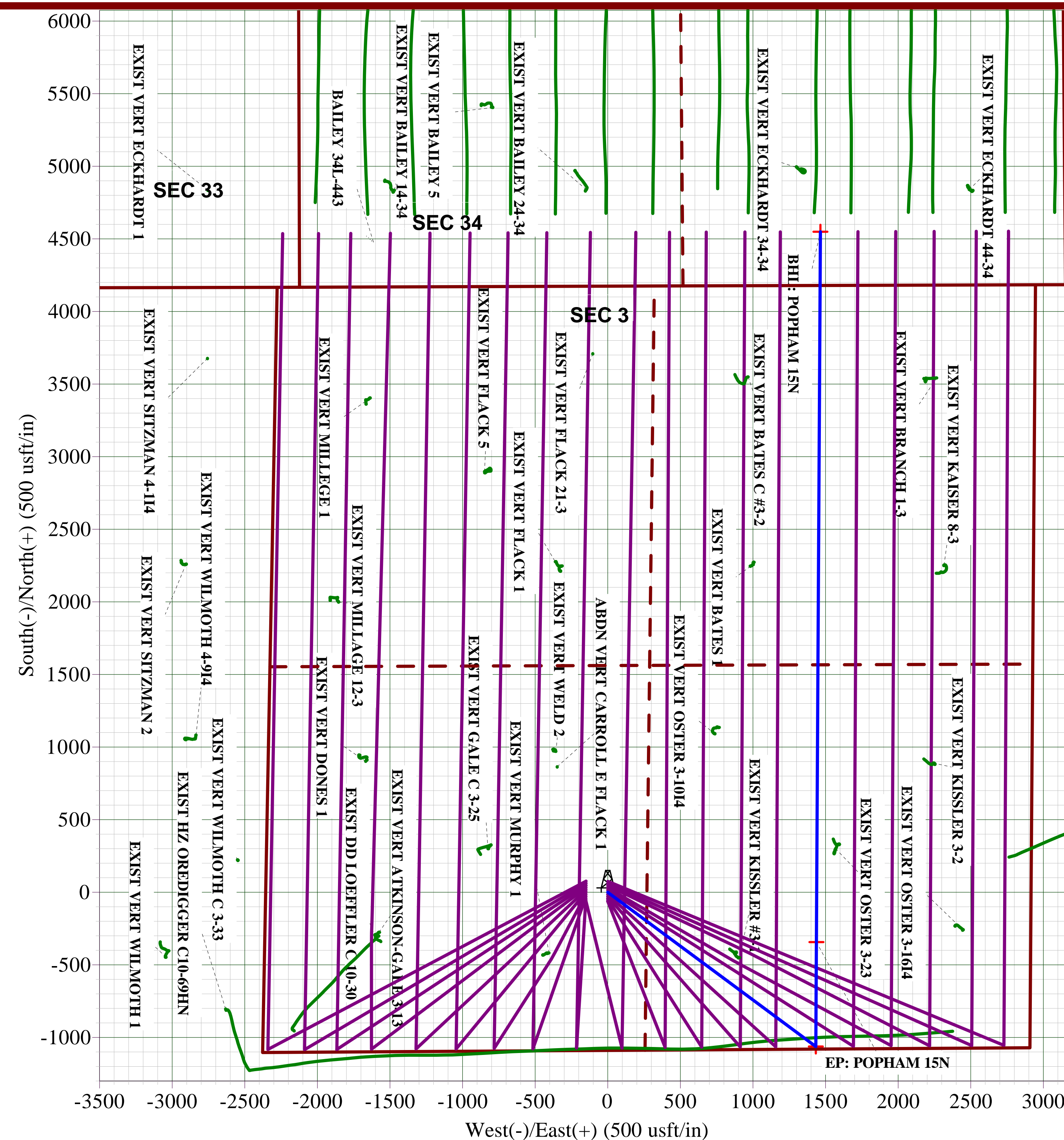
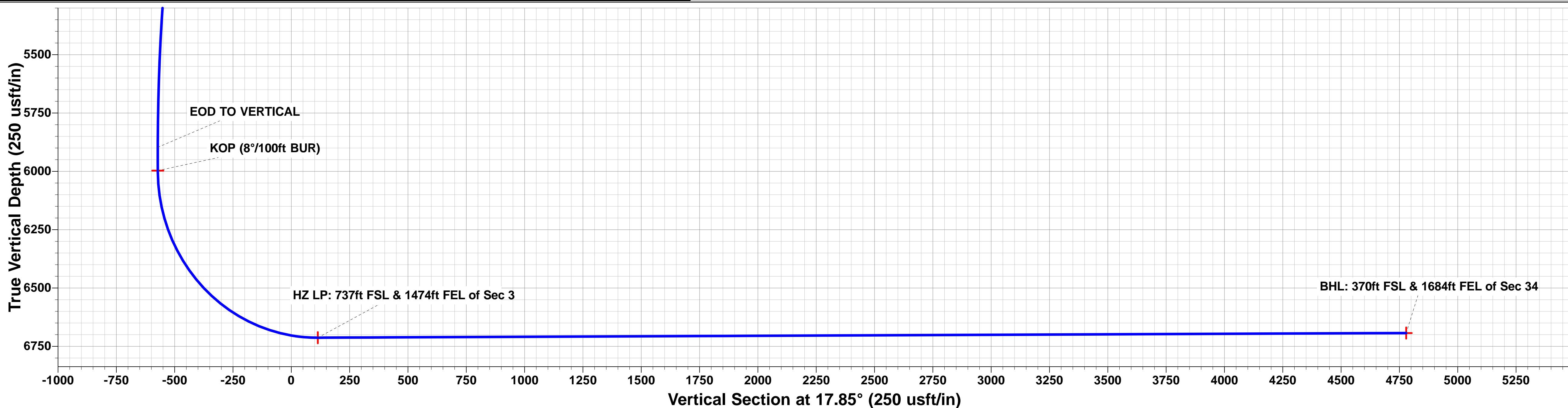
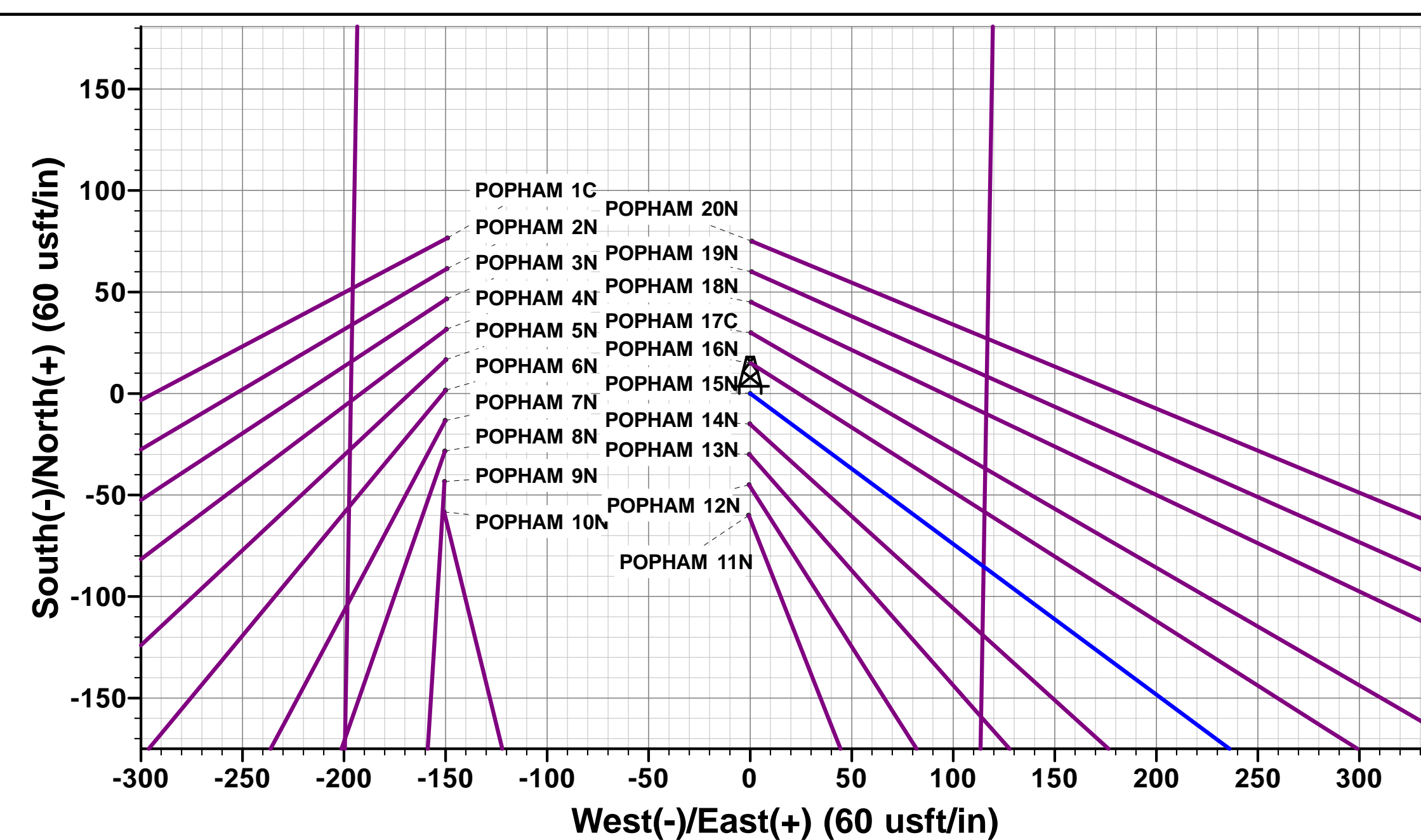


TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1089ft FSL & 2356ft FWL of Sec 3
700.0	700.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1874.7	1910.4	24.21	126.55	-150.0	202.4	-80.8	251.9	EOB TO 24.21° INC
4722.1	5032.3	24.21	126.55	-912.5	1230.7	-491.4	1532.1	END OF TANGENT
5896.8	6242.7	0.00	0.00	-1062.5	1433.1	-572.2	1784.0	EOD TO VERTICAL
5996.8	6342.7	0.00	0.00	-1062.5	1433.1	-572.2	1784.0	KOP (8°/100ft BUR)
6713.0	7470.7	90.23	0.32	-343.4	1437.1	113.6	2503.1	HZ LP: 737ft FSL & 1474ft FEL of Sec 3
6693.0	12363.3	90.23	0.32	4549.2	1464.6	4779.1	7395.8	BHL: 370ft FSL & 1684ft FEL of Sec 34

**BHL: 370ft FSL & 1684ft FEL of Sec 34**

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP: POPHAM 15N	5996.8	-1062.5	1433.1	40.334200	-104.532370
EP: POPHAM 15N	6713.0	-343.4	1437.1	40.336174	-104.532355
BHL: POPHAM 15N	6693.0	4549.2	1464.6	40.349603	-104.532255



# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SE SW SEC. 3 T4N R64W 6th P.M.  
POPHAM 15N**

**ORIGINAL WELLBORE  
PROPOSAL #1**

## **Anticollision Report**

**19 September, 2017**



## Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well POPHAM 15N
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4683.0usft (Original Well Elev)
<b>Reference Site:</b>	SE SW SEC. 3 T4N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4683.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	POPHAM 15N	<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	12,363.3	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 10N - ORIGINAL WELLBORE - PROPOSAL #	266.0	268.0	161.6	160.7	174.917	CC
POPHAM 10N - ORIGINAL WELLBORE - PROPOSAL #	400.0	401.2	161.8	160.3	107.903	ES
POPHAM 10N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,092.8	1,272.4	1,085.1	6.794	SF
POPHAM 11N - ORIGINAL WELLBORE - PROPOSAL #	300.0	299.0	60.0	58.9	56.086	CC, ES
POPHAM 11N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,141.3	1,039.0	843.6	5.316	SF
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	400.0	400.0	45.0	43.4	29.546	CC, ES
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,105.2	788.1	597.3	4.129	SF
POPHAM 13N - ORIGINAL WELLBORE - PROPOSAL #	500.0	499.0	30.0	28.0	15.229	CC, ES
POPHAM 13N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,220.4	520.0	328.3	2.713	SF
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	600.0	599.0	15.0	12.6	6.191	CC, ES
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,216.2	282.4	100.3	1.551	SF
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	700.0	700.0	15.0	12.1	5.230	CC, ES
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,417.0	265.8	75.6	1.397	Level 3, SF
POPHAM 17C - ORIGINAL WELLBORE - PROPOSAL #	700.0	700.0	29.9	27.1	10.434	CC, ES
POPHAM 17C - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,643.6	532.6	347.0	2.869	SF
POPHAM 18N - ORIGINAL WELLBORE - PROPOSAL #	700.0	700.0	45.0	42.1	15.676	CC, ES
POPHAM 18N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,651.3	786.9	590.6	4.007	SF
POPHAM 19N - ORIGINAL WELLBORE - PROPOSAL #	700.0	700.0	60.0	57.1	20.893	CC, ES
POPHAM 19N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,825.8	1,073.8	881.4	5.580	SF
POPHAM 1C - ORIGINAL WELLBORE - PROPOSAL #1	700.0	702.0	167.6	164.7	58.293	CC, ES
POPHAM 1C - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,832.6	3,705.7	3,525.4	20.554	SF
POPHAM 20N - ORIGINAL WELLBORE - PROPOSAL #	700.0	700.0	75.0	72.1	26.113	CC, ES
POPHAM 20N - ORIGINAL WELLBORE - PROPOSAL #	12,363.3	12,929.5	1,297.5	1,104.5	6.722	SF
POPHAM 2N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	702.0	161.4	158.5	56.146	CC, ES
POPHAM 2N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,551.9	3,457.0	3,269.5	18.438	SF
POPHAM 3N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	702.0	156.5	153.7	54.451	CC, ES
POPHAM 3N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,502.5	3,234.5	3,046.5	17.202	SF
POPHAM 4N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	702.0	152.9	150.0	53.180	CC, ES
POPHAM 4N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,369.5	2,962.2	2,774.7	15.799	SF
POPHAM 5N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	702.0	150.7	147.8	52.426	CC, ES
POPHAM 5N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,319.8	2,688.7	2,500.0	14.251	SF
POPHAM 6N - ORIGINAL WELLBORE - PROPOSAL #1	666.0	668.0	150.0	147.2	55.097	CC
POPHAM 6N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	701.9	150.0	147.1	52.177	ES
POPHAM 6N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,189.4	2,413.4	2,227.6	12.990	SF
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	566.0	568.0	150.7	148.4	66.326	CC
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	600.0	601.9	150.7	148.3	62.160	ES
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,204.0	2,150.8	1,961.2	11.343	SF

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



## Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well POPHAM 15N
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4683.0usft (Original Well Elev)
<b>Reference Site:</b>	SE SW SEC. 3 T4N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4683.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	POPHAM 15N	<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 8N - ORIGINAL WELLBORE - PROPOSAL #1	466.0	468.0	153.0	151.2	83.923	CC
POPHAM 8N - ORIGINAL WELLBORE - PROPOSAL #1	500.0	501.9	153.0	151.0	77.453	ES
POPHAM 8N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,123.9	1,884.8	1,692.6	9.810	SF
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	366.3	367.3	156.6	155.3	114.118	CC
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	400.0	401.0	156.6	155.1	102.803	ES
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	12,363.3	12,138.8	1,583.9	1,390.8	8.203	SF
SE SW SEC. 3 T4N R64W 6th P.M. (OFFSETS FOR POPHAM)						
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	5,389.7	4,995.9	885.1	847.9	23.837	CC
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	6,350.5	5,974.6	885.5	845.7	22.256	ES, SF
EXIST DD HOFFMAN C 02-33D - Wellbore #1 - Wellbore	8,065.1	7,511.4	1,329.2	1,273.5	23.893	CC, ES
EXIST DD HOFFMAN C 02-33D - Wellbore #1 - Wellbore	8,400.0	7,506.9	1,370.7	1,311.8	23.285	SF
EXIST HZ SUDEN 34M-223 - Wellbore #1 - Wellbore #1	12,363.3	11,092.0	516.9	341.3	2.944	CC, ES, SF
EXIST HZ SUDEN 34M-423 - Wellbore #1 - Wellbore #1	12,363.3	11,065.0	780.4	608.3	4.534	CC, ES, SF
EXIST HZ SUDEN 34U-203 - Wellbore #1 - Wellbore #1	12,363.3	11,081.0	251.9	77.6	1.445	Level 3, CC, ES, SF
EXIST HZ SUDEN 34R-323 - Wellbore #1 - Wellbore #1	12,363.3	11,162.0	786.6	607.8	4.398	CC, ES, SF
EXIST HZ SUDEN 34R-343 - Wellbore #1 - Wellbore #1	12,363.3	11,135.0	138.4	-31.3	0.815	Level 1, CC, ES, SF
EXIST HZ SUDEN 34R-423 - Wellbore #1 - Wellbore #1	12,363.3	11,245.0	632.7	457.8	3.616	CC, ES, SF
EXIST HZ SUDEN 34U-243 - Wellbore #1 - Wellbore #1	12,363.3	11,118.0	1,281.2	1,102.0	7.148	CC, ES, SF
EXIST HZ SUDEN 34U-403 - Wellbore #1 - Wellbore #1	12,363.3	11,309.0	1,622.8	1,444.3	9.093	CC, ES, SF
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	10,084.9	6,683.2	443.2	387.3	7.925	CC
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	10,100.0	6,683.1	443.5	387.3	7.893	ES, SF
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	11,368.8	6,663.4	580.3	501.1	7.330	CC, ES
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	11,400.0	6,664.7	581.1	501.4	7.286	SF
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	11,344.0	6,658.4	733.2	654.6	9.336	CC, ES
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	11,500.0	6,654.2	749.6	668.1	9.206	SF
EXIST VERT ECKHARDT 34-34 - Wellbore #1 - Wellbor	12,363.3	6,475.0	507.5	431.4	6.667	CC, ES, SF
EXIST VERT ECKHARDT 44-34 - Wellbore #1 - Wellbor	12,363.3	6,300.0	1,114.6	1,018.7	11.615	CC, ES, SF
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	10,081.0	6,650.0	1,813.7	1,758.1	32.611	CC
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	10,100.0	6,650.0	1,813.8	1,757.9	32.420	ES
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	11,200.0	6,650.0	2,131.1	2,055.5	28.172	SF
EXIST VERT FLACK 5 - Wellbore #1 - Wellbore #1	10,689.9	6,658.8	2,302.9	2,236.5	34.676	CC
EXIST VERT FLACK 5 - Wellbore #1 - Wellbore #1	10,700.0	6,658.9	2,302.9	2,236.3	34.582	ES
EXIST VERT FLACK 5 - Wellbore #1 - Wellbore #1	12,200.0	6,661.1	2,753.8	2,659.7	29.261	SF
EXIST VERT GALE C 3-25 - Wellbore #1 - Wellbore #1	714.6	705.9	875.5	873.5	438.779	CC, ES
EXIST VERT GALE C 3-25 - Wellbore #1 - Wellbore #1	12,363.3	6,572.7	4,884.2	4,787.4	50.462	SF
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	10,015.8	6,739.9	814.3	760.1	15.025	CC, ES
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	10,200.0	6,738.2	834.8	777.4	14.540	SF
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	3,583.3	3,364.5	187.0	165.0	8.515	CC
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	3,600.0	3,379.6	187.1	165.0	8.459	ES, SF
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	8,731.7	6,710.9	738.7	704.6	21.700	CC, ES
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	9,000.0	6,724.1	785.8	748.0	20.809	SF
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	100.0	76.6	581.5	581.3	3,459.710	CC, ES
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	12,363.3	6,500.0	5,338.6	5,242.0	55.275	SF
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	8,946.0	6,688.5	677.0	639.8	18.183	CC, ES
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	9,100.0	6,690.4	694.3	654.8	17.552	SF
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	6,500.0	6,135.4	1,260.2	1,221.4	32.542	SF
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	7,585.9	6,651.9	955.7	931.0	38.677	CC, ES
EXIST VERT OSTER 3-23 - Wellbore #1 - Wellbore #1	8,181.6	6,500.0	211.4	182.3	7.272	CC, ES
EXIST VERT OSTER 3-23 - Wellbore #1 - Wellbore #1	8,200.0	6,500.0	212.2	183.0	7.265	SF
EXIST VERT WELD 2 - Wellbore #1 - Wellbore #1	100.0	113.9	1,033.9	1,033.7	4,950.186	CC, ES
EXIST VERT WELD 2 - Wellbore #1 - Wellbore #1	10,600.0	6,700.0	2,564.2	2,499.4	39.575	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 15N
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4683.0usft (Original Well Elev)
<b>Reference Site:</b>	SE SW SEC. 3 T4N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4683.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	POPHAM 15N	<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
Offset Well - Wellbore - Design						
SW SW SEC. 34 T5N R64W 6th P.M.						
ABDN VERT CARROLL E FLACK 1 - Wellbore #1 - Desi	700.0	696.0	932.3	917.9	64.944	CC
ABDN VERT CARROLL E FLACK 1 - Wellbore #1 - Desi	800.0	796.0	933.8	917.2	56.363	ES
ABDN VERT CARROLL E FLACK 1 - Wellbore #1 - Desi	9,000.0	6,702.8	1,822.7	1,652.7	10.720	SF
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	712.3	726.9	1,629.0	1,626.7	716.185	CC
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	800.0	834.0	1,629.4	1,626.7	608.805	ES
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	12,363.3	6,757.6	6,589.2	6,475.7	58.082	SF
EXIST HZ CHESNUT 27G-203 - Wellbore #1 - Wellbore	12,363.3	13,769.0	3,485.5	3,250.3	14.818	CC, ES, SF
EXIST HZ CHESNUT 27G-423 - Wellbore #1 - Wellbore	12,363.3	13,972.0	3,122.6	2,886.0	13.200	CC, ES, SF
EXIST HZ CHESNUT 27K-203 - Wellbore #1 - Wellbore	12,363.3	13,900.0	2,439.4	2,204.8	10.396	CC, ES, SF
EXIST HZ CHESNUT 27K-323 - Wellbore #1 - Wellbore	12,363.3	14,120.0	1,829.6	1,605.9	8.180	CC, ES, SF
EXIST HZ CHESNUT 27K-343 - Wellbore #1 - Wellbore	12,363.3	13,920.0	2,797.0	2,561.2	11.860	CC, ES, SF
EXIST HZ CHESNUT 27K-403 - Wellbore #1 - Wellbore	12,363.3	14,160.0	2,140.7	1,917.2	9.577	CC, ES, SF
EXIST HZ CHESNUT 27O-243 - Wellbore #1 - Wellbore	12,363.3	14,066.0	1,484.3	1,260.7	6.640	CC, ES, SF
EXIST HZ CHESNUT 27O-303 - Wellbore #1 - Wellbore	12,363.3	14,196.0	1,161.3	936.2	5.160	CC, ES, SF
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,850.0	10,316.5	196.7	88.3	1.814	SF
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,890.5	10,317.9	191.4	88.0	1.851	CC, ES
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	508.0	500.0	1,596.2	1,594.8	1,121.968	CC
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	600.0	584.9	1,596.4	1,594.8	969.055	ES
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	12,363.3	6,700.0	5,748.3	5,651.1	59.114	SF
EXIST VERT BAILEY 14-34 - Wellbore #1 - Wellbore #1	12,363.3	6,525.0	3,024.6	2,927.5	31.159	CC, ES, SF
EXIST VERT BAILEY 24-34 - Wellbore #1 - Wellbore #1	12,363.3	6,500.0	1,750.6	1,654.2	18.145	CC, ES, SF
EXIST VERT BAILEY 5 - Wellbore #1 - Wellbore #1	12,363.3	6,675.7	2,493.3	2,395.5	25.500	CC, ES, SF
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	707.8	708.0	1,895.0	1,893.1	963.238	CC, ES
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	12,363.3	6,724.4	4,802.7	4,705.5	49.377	SF
EXIST VERT ECKHARDT 1 - Wellbore #1 - Design #1	12,363.3	6,693.0	4,228.2	3,999.1	18.459	CC, ES, SF
EXIST VERT FLACK 21-3 - Wellbore #1 - Design #1	11,515.3	6,688.5	1,563.0	1,349.7	7.327	CC, ES
EXIST VERT FLACK 21-3 - Wellbore #1 - Design #1	11,700.0	6,687.7	1,573.9	1,357.2	7.262	SF
EXIST VERT MILLAGE 12-3 - Wellbore #1 - Wellbore #1	0.0	12.6	2,725.4			
EXIST VERT MILLAGE 12-3 - Wellbore #1 - Wellbore #1	12,363.3	6,698.7	4,224.9	4,127.7	43.438	SF
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	11,158.3	6,682.6	3,122.0	3,047.1	41.678	CC
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	11,200.0	6,682.4	3,122.2	3,046.6	41.264	ES
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	12,363.3	6,677.8	3,346.5	3,249.3	34.447	SF
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	700.2	708.5	3,679.4	3,677.5	1,900.098	CC, ES
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	12,363.3	6,525.0	4,960.0	4,863.0	51.163	SF
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,467.8	6,711.7	4,216.4	4,003.7	19.823	CC
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,500.0	6,711.6	4,216.5	4,003.2	19.769	ES
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	12,363.3	6,708.0	4,310.5	4,081.3	18.806	SF
EXIST VERT WILMOTH 1 - Wellbore #1 - Wellbore #1	0.0	6.9	3,074.2			
EXIST VERT WILMOTH 1 - Wellbore #1 - Wellbore #1	12,363.3	6,760.0	6,677.8	6,580.4	68.551	SF
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	0.0	0.0	3,035.1			
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	705.6	719.3	3,036.0	3,034.0	1,548.594	ES
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	12,363.3	6,724.4	5,582.9	5,485.5	57.321	SF
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	579.2	581.2	2,559.4	2,557.8	1,598.876	CC
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	700.0	701.4	2,559.4	2,557.5	1,323.321	ES
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	12,363.3	6,700.0	5,900.7	5,803.8	60.929	SF