

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SE SE SEC. 7 T6N R64W 6th P.M.  
ELVERA 7D-212**

**ORIGINAL WELLBORE**

**03 March, 2016**

**Plan: PROPOSAL #1**





Project: WELD COUNTY, COLORADO  
 Site: SE SE SEC. 7 T6N R64W 6th P.M.  
 Well: ELVERA 7D-212  
 Wellbore: ORIGINAL WELLBORE  
 Design: PROPOSAL #1

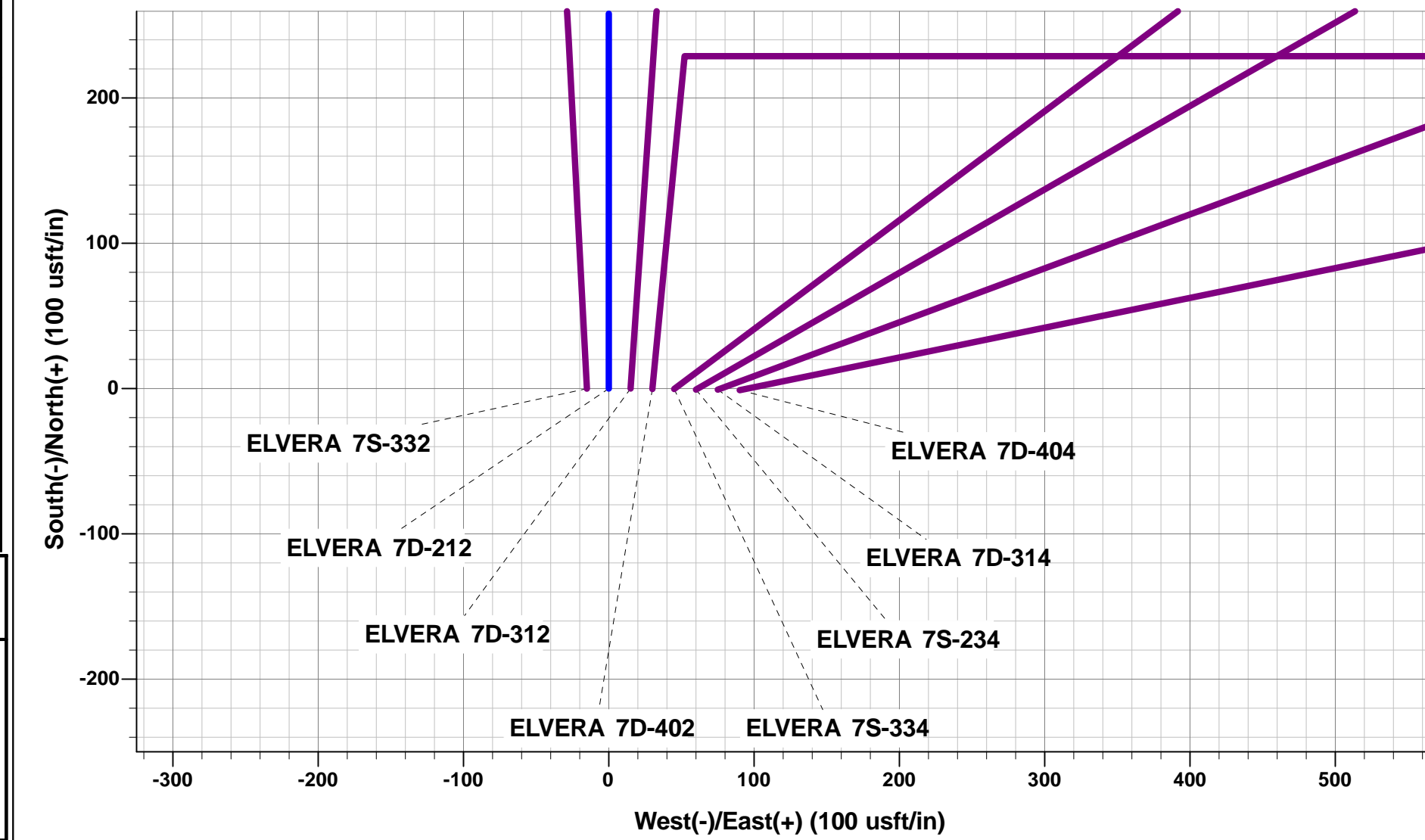


ANNOTATIONS

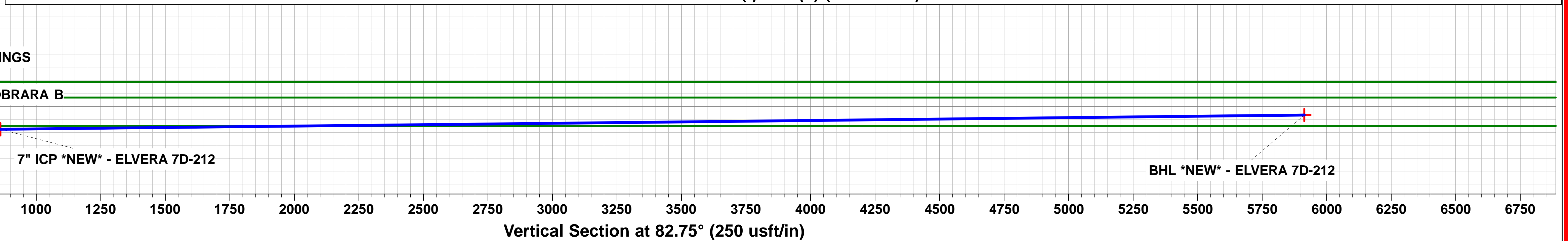
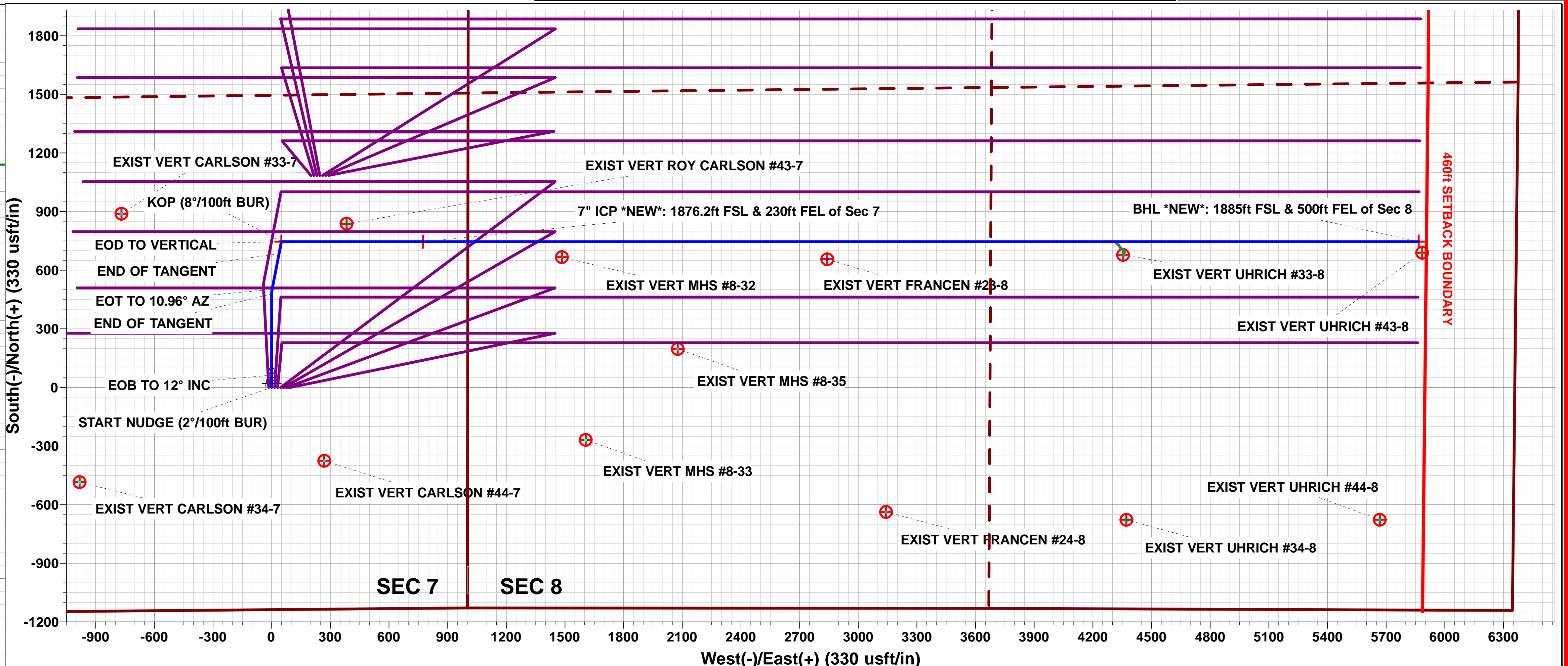
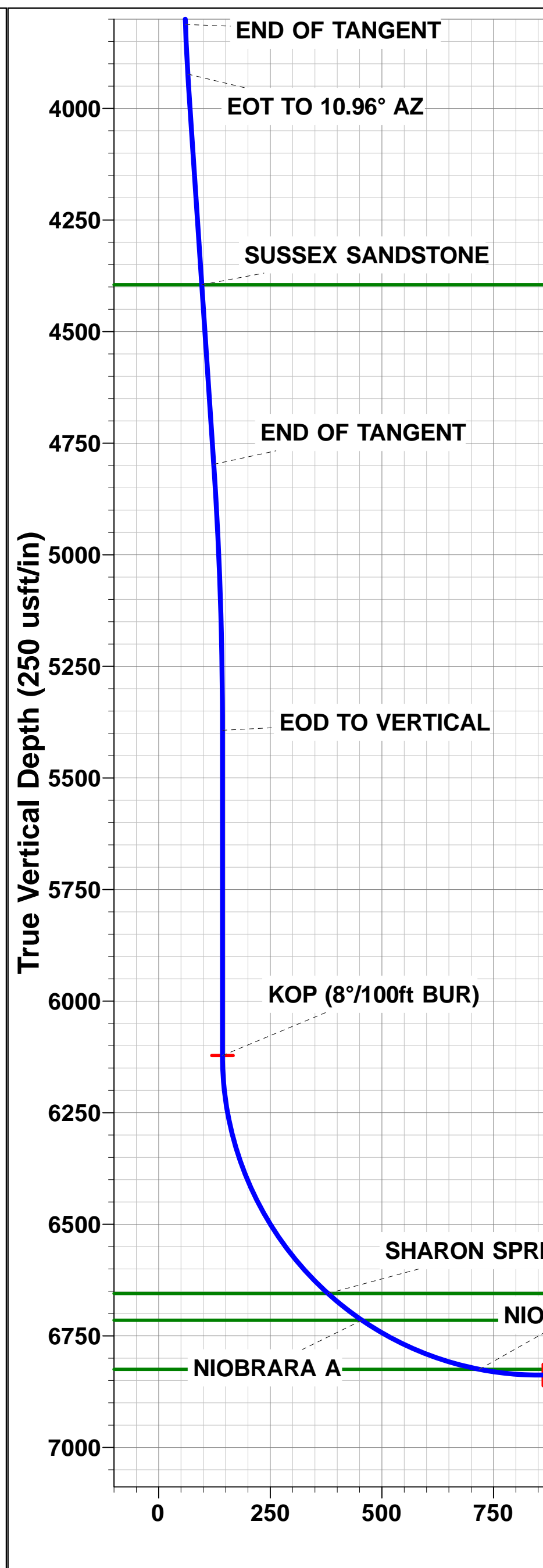
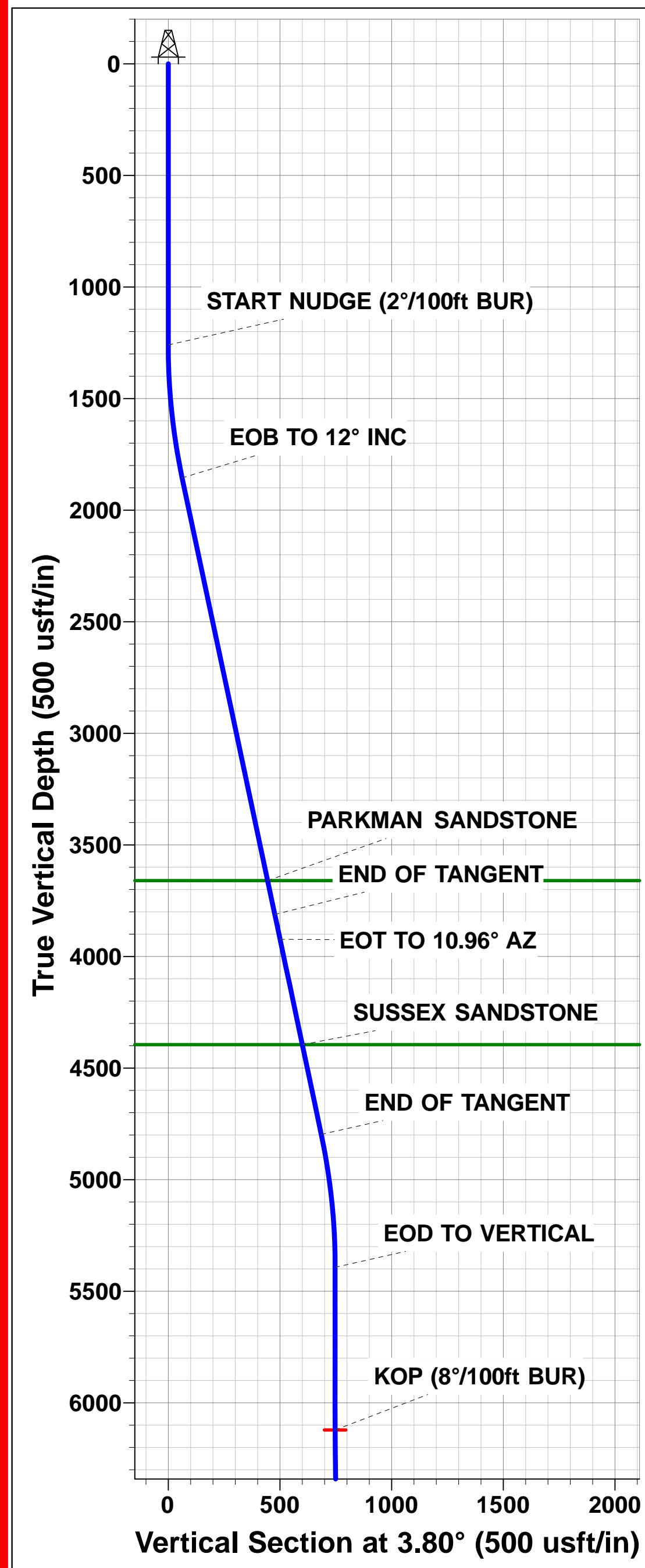
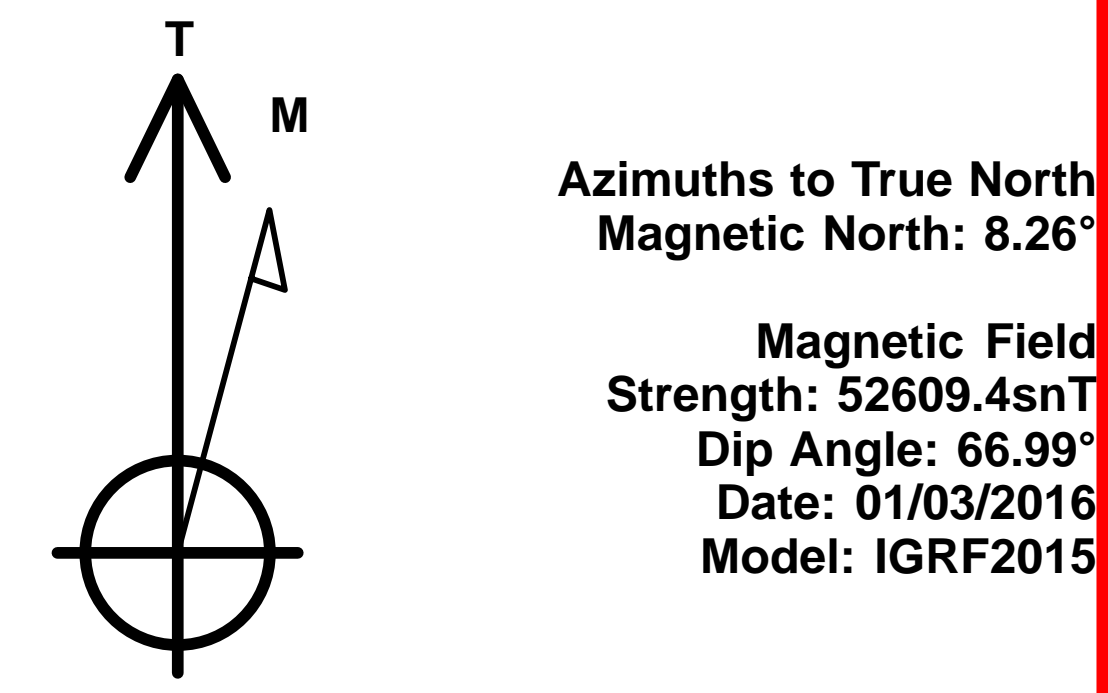
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1137ft FSL & 1002ft FEL of Sec 7
1260.0	1260.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDDGE (2°/100ft BUR)
1855.6	1860.0	12.00	0.00	62.6	0.0	7.9	62.6	EOB TO 12° INC
3811.9	3860.0	12.00	0.00	478.4	0.0	60.3	478.4	END OF TANGENT
3923.2	3973.8	12.00	10.96	501.9	2.2	65.5	502.0	EOT TO 10.96° AZ
4797.5	4867.6	12.00	10.96	684.4	37.6	123.6	687.9	END OF TANGENT
5393.2	5467.7	0.00	0.00	745.8	49.5	143.2	750.5	EOD TO VERTICAL
6121.8	6196.3	0.00	0.00	745.8	49.5	143.2	750.5	KOP (8°/100ft BUR)
6838.0	7329.0	90.61	90.00	745.8	773.4	861.3	1474.4	7" ICP *NEW*: 1876.2ft FSL & 230ft FEL of Sec 7
6783.0	12422.2	90.62	90.00	745.8	5866.3	5913.5	6567.3	BHL *NEW*: 1885ft FSL & 500ft FEL of Sec 8

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - ELVERA 7D-212	6121.8	745.8	49.5	40.498437	-104.587119
7" ICP *NEW* - ELVERA 7D-212	6838.0	745.8	773.4	40.498437	-104.584516
BHL *NEW* - ELVERA 7D-212	6783.0	745.8	5866.3	40.498435	-104.566204



PROPOSED LOCAL COORDINATES:  
 SHL: 1137ft FSL & 1002ft FEL of Sec 7  
 7" ICP \*NEW\*: 1873.2ft FSL & 230ft FEL of Sec 7  
 BHL: 1885ft FSL & 500ft FEL of Sec 8



Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-212
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4747.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4747.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	WELD COUNTY, COLORADO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	SE SE SEC. 7 T6N R64W 6th P.M.				
<b>Site Position:</b>		<b>Northing:</b>	1,424,981.51 usft	<b>Latitude:</b>	40.496387
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,253,921.44 usft	<b>Longitude:</b>	-104.586973
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft	<b>Grid Convergence:</b>	0.59 °

<b>Well</b>	ELVERA 7D-212					
<b>Well Position</b>	<b>+N-S</b>	1.1 usft	<b>Northing:</b>	1,424,981.65 usft	<b>Latitude:</b>	40.496390
	<b>+E-W</b>	-90.1 usft	<b>Easting:</b>	3,253,831.33 usft	<b>Longitude:</b>	-104.587297
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	4,724.0 usft

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	01/03/2016	8.26	66.99	52,609

<b>Design</b>	PROPOSAL #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N-S (usft)</b>	<b>+E-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	82.75

<b>Plan Sections</b>											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,747.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,260.0	0.00	0.00	1,260.0	-3,487.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,860.0	12.00	0.00	1,855.6	-2,891.4	62.6	0.0	2.00	2.00	0.00	0.00	
3,860.0	12.00	0.00	3,811.9	-935.1	478.4	0.0	0.00	0.00	0.00	0.00	
3,973.8	12.00	10.96	3,923.2	-823.8	501.9	2.2	2.00	0.00	9.63	95.30	
4,867.6	12.00	10.96	4,797.5	50.5	684.4	37.6	0.00	0.00	0.00	0.00	
5,467.7	0.00	0.00	5,393.2	646.2	745.8	49.5	2.00	-2.00	0.00	180.00	
6,196.3	0.00	0.00	6,121.8	1,374.8	745.8	49.5	0.00	0.00	0.00	0.00	KOP - ELVERA 7D-
7,329.0	90.61	90.00	6,838.0	2,091.0	745.8	773.4	8.00	8.00	7.95	90.00	7" ICP *NEW* - EL
12,422.2	90.62	90.00	6,783.0	2,036.0	745.8	5,866.3	0.00	0.00	0.00	-24.09	BHL *NEW* - ELVE

Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-212
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4747.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4747.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>SHL: 1137ft FSL &amp; 1002ft FEL of Sec 7</b>										
0.0	0.00	0.00	0.0	4,747.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,647.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,547.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,447.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,347.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,247.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,147.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,047.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,947.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,847.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,747.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,647.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,547.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
1,260.0	0.00	0.00	1,260.0	3,487.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.80	0.00	1,300.0	3,447.00	0.3	0.0	0.0	2.00	2.00	0.00
1,400.0	2.80	0.00	1,399.9	3,347.06	3.4	0.0	0.4	2.00	2.00	0.00
1,500.0	4.80	0.00	1,499.7	3,247.28	10.0	0.0	1.3	2.00	2.00	0.00
1,600.0	6.80	0.00	1,599.2	3,147.80	20.2	0.0	2.5	2.00	2.00	0.00
1,700.0	8.80	0.00	1,698.3	3,048.73	33.7	0.0	4.3	2.00	2.00	0.00
1,800.0	10.80	0.00	1,796.8	2,950.19	50.7	0.0	6.4	2.00	2.00	0.00
<b>EOB TO 12° INC</b>										
1,860.0	12.00	0.00	1,855.6	2,891.38	62.6	0.0	7.9	2.00	2.00	0.00
1,900.0	12.00	0.00	1,894.7	2,852.25	70.9	0.0	8.9	0.00	0.00	0.00
2,000.0	12.00	0.00	1,992.6	2,754.44	91.7	0.0	11.6	0.00	0.00	0.00
2,100.0	12.00	0.00	2,090.4	2,656.62	112.5	0.0	14.2	0.00	0.00	0.00
2,200.0	12.00	0.00	2,188.2	2,558.81	133.3	0.0	16.8	0.00	0.00	0.00
2,300.0	12.00	0.00	2,286.0	2,460.99	154.1	0.0	19.4	0.00	0.00	0.00
2,400.0	12.00	0.00	2,383.8	2,363.18	174.9	0.0	22.1	0.00	0.00	0.00
2,500.0	12.00	0.00	2,481.6	2,265.36	195.7	0.0	24.7	0.00	0.00	0.00
2,600.0	12.00	0.00	2,579.5	2,167.55	216.5	0.0	27.3	0.00	0.00	0.00
2,700.0	12.00	0.00	2,677.3	2,069.73	237.2	0.0	29.9	0.00	0.00	0.00
2,800.0	12.00	0.00	2,775.1	1,971.92	258.0	0.0	32.5	0.00	0.00	0.00
2,900.0	12.00	0.00	2,872.9	1,874.10	278.8	0.0	35.2	0.00	0.00	0.00
3,000.0	12.00	0.00	2,970.7	1,776.29	299.6	0.0	37.8	0.00	0.00	0.00
3,100.0	12.00	0.00	3,068.5	1,678.47	320.4	0.0	40.4	0.00	0.00	0.00
3,200.0	12.00	0.00	3,166.3	1,580.66	341.2	0.0	43.0	0.00	0.00	0.00
3,300.0	12.00	0.00	3,264.2	1,482.84	362.0	0.0	45.7	0.00	0.00	0.00
3,400.0	12.00	0.00	3,362.0	1,385.03	382.8	0.0	48.3	0.00	0.00	0.00
3,500.0	12.00	0.00	3,459.8	1,287.21	403.6	0.0	50.9	0.00	0.00	0.00
3,600.0	12.00	0.00	3,557.6	1,189.40	424.4	0.0	53.5	0.00	0.00	0.00
3,700.0	12.00	0.00	3,655.4	1,091.59	445.2	0.0	56.1	0.00	0.00	0.00
<b>PARKMAN SANDSTONE</b>										
3,704.7	12.00	0.00	3,660.0	1,087.00	446.1	0.0	56.3	0.00	0.00	0.00
3,800.0	12.00	0.00	3,753.2	993.77	466.0	0.0	58.8	0.00	0.00	0.00
<b>END OF TANGENT</b>										
3,860.0	12.00	0.00	3,811.9	935.08	478.4	0.0	60.3	0.00	0.00	0.00
3,900.0	11.95	3.85	3,851.0	895.95	486.7	0.3	61.7	2.00	-0.12	9.62
<b>EOT TO 10.96° AZ</b>										
3,973.8	12.00	10.96	3,923.2	823.77	501.9	2.2	65.5	2.00	0.07	9.64
4,000.0	12.00	10.96	3,948.9	798.13	507.2	3.3	67.2	0.00	0.00	0.00
4,100.0	12.00	10.96	4,046.7	700.31	527.6	7.2	73.7	0.00	0.00	0.00

Planning Report



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<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4747.0usft
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<b>Well:</b>	ELVERA 7D-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,200.0	12.00	10.96	4,144.5	602.50	548.1	11.2	80.2	0.00	0.00	0.00
4,300.0	12.00	10.96	4,242.3	504.69	568.5	15.1	86.7	0.00	0.00	0.00
4,400.0	12.00	10.96	4,340.1	406.87	588.9	19.1	93.2	0.00	0.00	0.00
<b>SUSSEX SANDSTONE</b>										
<b>4,456.1</b>	<b>12.00</b>	<b>10.96</b>	<b>4,395.0</b>	<b>352.00</b>	<b>600.3</b>	<b>21.3</b>	<b>96.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,500.0	12.00	10.96	4,437.9	309.06	609.3	23.1	99.7	0.00	0.00	0.00
4,600.0	12.00	10.96	4,535.8	211.24	629.7	27.0	106.2	0.00	0.00	0.00
4,700.0	12.00	10.96	4,633.6	113.43	650.1	31.0	112.7	0.00	0.00	0.00
4,800.0	12.00	10.96	4,731.4	15.62	670.6	34.9	119.2	0.00	0.00	0.00
<b>END OF TANGENT</b>										
<b>4,867.6</b>	<b>12.00</b>	<b>10.96</b>	<b>4,797.5</b>	<b>-50.49</b>	<b>684.4</b>	<b>37.6</b>	<b>123.6</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,900.0	11.35	10.96	4,829.2	-82.24	690.8	38.8	125.6	2.00	-2.00	0.00
5,000.0	9.35	10.96	4,927.6	-180.60	708.4	42.3	131.3	2.00	-2.00	0.00
5,100.0	7.35	10.96	5,026.5	-279.54	722.7	45.0	135.8	2.00	-2.00	0.00
5,200.0	5.35	10.96	5,125.9	-378.92	733.6	47.1	139.3	2.00	-2.00	0.00
5,300.0	3.35	10.96	5,225.6	-478.62	741.0	48.6	141.6	2.00	-2.00	0.00
5,400.0	1.35	10.96	5,325.5	-578.53	745.1	49.3	142.9	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
<b>5,467.7</b>	<b>0.00</b>	<b>0.00</b>	<b>5,393.2</b>	<b>-646.23</b>	<b>745.8</b>	<b>49.5</b>	<b>143.2</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
5,500.0	0.00	0.00	5,425.5	-678.53	745.8	49.5	143.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,525.5	-778.53	745.8	49.5	143.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,625.5	-878.53	745.8	49.5	143.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,725.5	-978.53	745.8	49.5	143.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,825.5	-1,078.53	745.8	49.5	143.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,925.5	-1,178.53	745.8	49.5	143.2	0.00	0.00	0.00
6,100.0	0.00	0.00	6,025.5	-1,278.53	745.8	49.5	143.2	0.00	0.00	0.00
<b>KOP (8°/100ft BUR)</b>										
<b>6,196.3</b>	<b>0.00</b>	<b>0.00</b>	<b>6,121.8</b>	<b>-1,374.80</b>	<b>745.8</b>	<b>49.5</b>	<b>143.2</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,200.0	0.30	90.00	6,125.5	-1,378.53	745.8	49.5	143.2	8.00	8.00	0.00
6,300.0	8.30	90.00	6,225.2	-1,478.16	745.8	57.0	150.6	8.00	8.00	0.00
6,400.0	16.30	90.00	6,322.8	-1,575.79	745.8	78.3	171.7	8.00	8.00	0.00
6,500.0	24.30	90.00	6,416.5	-1,669.51	745.8	112.9	206.1	8.00	8.00	0.00
6,600.0	32.30	90.00	6,504.5	-1,757.48	745.8	160.3	253.1	8.00	8.00	0.00
6,700.0	40.30	90.00	6,585.0	-1,838.02	745.8	219.4	311.8	8.00	8.00	0.00
<b>SHARON SPRINGS</b>										
<b>6,797.7</b>	<b>48.11</b>	<b>90.00</b>	<b>6,655.0</b>	<b>-1,908.00</b>	<b>745.8</b>	<b>287.5</b>	<b>379.3</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
6,800.0	48.30	90.00	6,656.5	-1,909.53	745.8	289.2	381.0	8.00	8.00	0.00
<b>NIORRARA A</b>										
<b>6,895.3</b>	<b>55.92</b>	<b>90.00</b>	<b>6,715.0</b>	<b>-1,968.00</b>	<b>745.8</b>	<b>364.3</b>	<b>455.5</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
6,900.0	56.29	90.00	6,717.6	-1,970.64	745.8	368.3	459.4	8.00	8.00	0.00
7,000.0	64.29	90.00	6,767.2	-2,020.16	745.8	455.1	545.5	8.00	8.00	0.00
7,100.0	72.29	90.00	6,804.1	-2,057.11	745.8	547.9	637.6	8.00	8.00	0.00
<b>NIORRARA B</b>										
<b>7,184.5</b>	<b>79.05</b>	<b>90.00</b>	<b>6,825.0</b>	<b>-2,078.00</b>	<b>745.8</b>	<b>629.7</b>	<b>718.7</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,200.0	80.29	90.00	6,827.8	-2,080.79	745.8	645.0	733.9	8.00	8.00	0.00
7,300.0	88.29	90.00	6,837.7	-2,090.72	745.8	744.4	832.5	8.00	8.00	0.00
<b>7" ICP *NEW*: 1876.2ft FSL &amp; 230ft FEL of Sec 7</b>										
<b>7,329.0</b>	<b>90.61</b>	<b>90.00</b>	<b>6,838.0</b>	<b>-2,091.00</b>	<b>745.8</b>	<b>773.4</b>	<b>861.3</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,400.0	90.61	90.00	6,837.2	-2,090.24	745.8	844.4	931.7	0.00	0.00	0.00
7,500.0	90.61	90.00	6,836.2	-2,089.17	745.8	944.4	1,030.9	0.00	0.00	0.00
7,600.0	90.61	90.00	6,835.1	-2,088.10	745.8	1,044.4	1,130.1	0.00	0.00	0.00
7,700.0	90.61	90.00	6,834.0	-2,087.03	745.8	1,144.4	1,229.3	0.00	0.00	0.00
7,800.0	90.61	90.00	6,833.0	-2,085.96	745.8	1,244.4	1,328.5	0.00	0.00	0.00

Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-212
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4747.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4747.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,900.0	90.61	90.00	6,831.9	-2,084.88	745.8	1,344.4	1,427.7	0.00	0.00	0.00
8,000.0	90.61	90.00	6,830.8	-2,083.81	745.8	1,444.4	1,526.9	0.00	0.00	0.00
8,100.0	90.61	90.00	6,829.7	-2,082.74	745.8	1,544.3	1,626.1	0.00	0.00	0.00
8,200.0	90.62	90.00	6,828.7	-2,081.67	745.8	1,644.3	1,725.3	0.00	0.00	0.00
8,300.0	90.62	90.00	6,827.6	-2,080.59	745.8	1,744.3	1,824.5	0.00	0.00	0.00
8,400.0	90.62	90.00	6,826.5	-2,079.52	745.8	1,844.3	1,923.7	0.00	0.00	0.00
8,500.0	90.62	90.00	6,825.4	-2,078.44	745.8	1,944.3	2,022.9	0.00	0.00	0.00
8,600.0	90.62	90.00	6,824.4	-2,077.37	745.8	2,044.3	2,122.1	0.00	0.00	0.00
8,700.0	90.62	90.00	6,823.3	-2,076.29	745.8	2,144.3	2,221.2	0.00	0.00	0.00
8,800.0	90.62	90.00	6,822.2	-2,075.22	745.8	2,244.3	2,320.4	0.00	0.00	0.00
8,900.0	90.62	90.00	6,821.1	-2,074.14	745.8	2,344.3	2,419.6	0.00	0.00	0.00
9,000.0	90.62	90.00	6,820.1	-2,073.07	745.8	2,444.3	2,518.8	0.00	0.00	0.00
9,100.0	90.62	90.00	6,819.0	-2,071.99	745.8	2,544.3	2,618.0	0.00	0.00	0.00
9,200.0	90.62	90.00	6,817.9	-2,070.91	745.8	2,644.3	2,717.2	0.00	0.00	0.00
9,300.0	90.62	90.00	6,816.8	-2,069.83	745.8	2,744.3	2,816.4	0.00	0.00	0.00
9,400.0	90.62	90.00	6,815.8	-2,068.76	745.8	2,844.3	2,915.6	0.00	0.00	0.00
9,500.0	90.62	90.00	6,814.7	-2,067.68	745.7	2,944.3	3,014.8	0.00	0.00	0.00
9,600.0	90.62	90.00	6,813.6	-2,066.60	745.7	3,044.3	3,114.0	0.00	0.00	0.00
9,700.0	90.62	90.00	6,812.5	-2,065.52	745.7	3,144.3	3,213.2	0.00	0.00	0.00
9,800.0	90.62	90.00	6,811.4	-2,064.44	745.7	3,244.3	3,312.4	0.00	0.00	0.00
9,900.0	90.62	90.00	6,810.4	-2,063.36	745.7	3,344.2	3,411.6	0.00	0.00	0.00
10,000.0	90.62	90.00	6,809.3	-2,062.28	745.7	3,444.2	3,510.8	0.00	0.00	0.00
10,100.0	90.62	90.00	6,808.2	-2,061.20	745.7	3,544.2	3,610.0	0.00	0.00	0.00
10,200.0	90.62	90.00	6,807.1	-2,060.12	745.7	3,644.2	3,709.2	0.00	0.00	0.00
10,300.0	90.62	90.00	6,806.0	-2,059.04	745.7	3,744.2	3,808.4	0.00	0.00	0.00
10,400.0	90.62	90.00	6,805.0	-2,057.96	745.8	3,844.2	3,907.6	0.00	0.00	0.00
10,500.0	90.62	90.00	6,803.9	-2,056.87	745.8	3,944.2	4,006.8	0.00	0.00	0.00
10,600.0	90.62	90.00	6,802.8	-2,055.79	745.8	4,044.2	4,106.0	0.00	0.00	0.00
10,700.0	90.62	90.00	6,801.7	-2,054.71	745.8	4,144.2	4,205.2	0.00	0.00	0.00
10,800.0	90.62	90.00	6,800.6	-2,053.63	745.8	4,244.2	4,304.4	0.00	0.00	0.00
10,900.0	90.62	90.00	6,799.5	-2,052.54	745.8	4,344.2	4,403.6	0.00	0.00	0.00
11,000.0	90.62	90.00	6,798.5	-2,051.46	745.8	4,444.2	4,502.7	0.00	0.00	0.00
11,100.0	90.62	90.00	6,797.4	-2,050.37	745.8	4,544.2	4,601.9	0.00	0.00	0.00
11,200.0	90.62	90.00	6,796.3	-2,049.29	745.8	4,644.2	4,701.1	0.00	0.00	0.00
11,300.0	90.62	90.00	6,795.2	-2,048.20	745.8	4,744.2	4,800.3	0.00	0.00	0.00
11,400.0	90.62	90.00	6,794.1	-2,047.12	745.8	4,844.2	4,899.5	0.00	0.00	0.00
11,500.0	90.62	90.00	6,793.0	-2,046.03	745.8	4,944.2	4,998.7	0.00	0.00	0.00
11,600.0	90.62	90.00	6,791.9	-2,044.95	745.8	5,044.1	5,097.9	0.00	0.00	0.00
11,700.0	90.62	90.00	6,790.9	-2,043.86	745.8	5,144.1	5,197.1	0.00	0.00	0.00
11,800.0	90.62	90.00	6,789.8	-2,042.77	745.8	5,244.1	5,296.3	0.00	0.00	0.00
11,900.0	90.62	90.00	6,788.7	-2,041.68	745.8	5,344.1	5,395.5	0.00	0.00	0.00
12,000.0	90.62	90.00	6,787.6	-2,040.60	745.8	5,444.1	5,494.7	0.00	0.00	0.00
12,100.0	90.62	90.00	6,786.5	-2,039.51	745.8	5,544.1	5,593.9	0.00	0.00	0.00
12,200.0	90.62	90.00	6,785.4	-2,038.42	745.8	5,644.1	5,693.1	0.00	0.00	0.00
12,300.0	90.62	90.00	6,784.3	-2,037.33	745.8	5,744.1	5,792.3	0.00	0.00	0.00
12,400.0	90.62	90.00	6,783.2	-2,036.24	745.8	5,844.1	5,891.5	0.00	0.00	0.00
<b>BHL *NEW*: 1885ft FSL &amp; 500ft FEL of Sec 8</b>										
<b>12,422.2</b>	<b>90.62</b>	<b>90.00</b>	<b>6,783.0</b>	<b>-2,036.00</b>	<b>745.8</b>	<b>5,866.3</b>	<b>5,913.5</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-212
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4747.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4747.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,704.7	3,660.0	PARKMAN SANDSTONE			
4,456.1	4,395.0	SUSSEX SANDSTONE			
6,797.7	6,655.0	SHARON SPRINGS			
6,895.3	6,715.0	NIOBRARA A			
7,184.5	6,825.0	NIOBRARA B			

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
0.0	0.0	0.0	0.0	SHL: 1137ft FSL & 1002ft FEL of Sec 7
1,260.0	1,260.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,860.0	1,855.6	62.6	0.0	EOB TO 12° INC
3,860.0	3,811.9	478.4	0.0	END OF TANGENT
3,973.8	3,923.2	501.9	2.2	EOT TO 10.96° AZ
4,867.6	4,797.5	684.4	37.6	END OF TANGENT
5,467.7	5,393.2	745.8	49.5	EOD TO VERTICAL
6,196.3	6,121.8	745.8	49.5	KOP (8°/100ft BUR)
7,329.0	6,838.0	745.8	773.4	7" ICP *NEW*: 1876.2ft FSL & 230ft FEL of Sec 7
12,422.2	6,783.0	745.8	5,866.3	BHL *NEW*: 1885ft FSL & 500ft FEL of Sec 8