

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
NW SW SEC. 17 T5N R64W 6th P.M.  
CECIL'S KERSEY FARM 17K-404**

## **ORIGINAL WELLBORE**

**16 September, 2015**

**Plan: PROPOSAL #2**





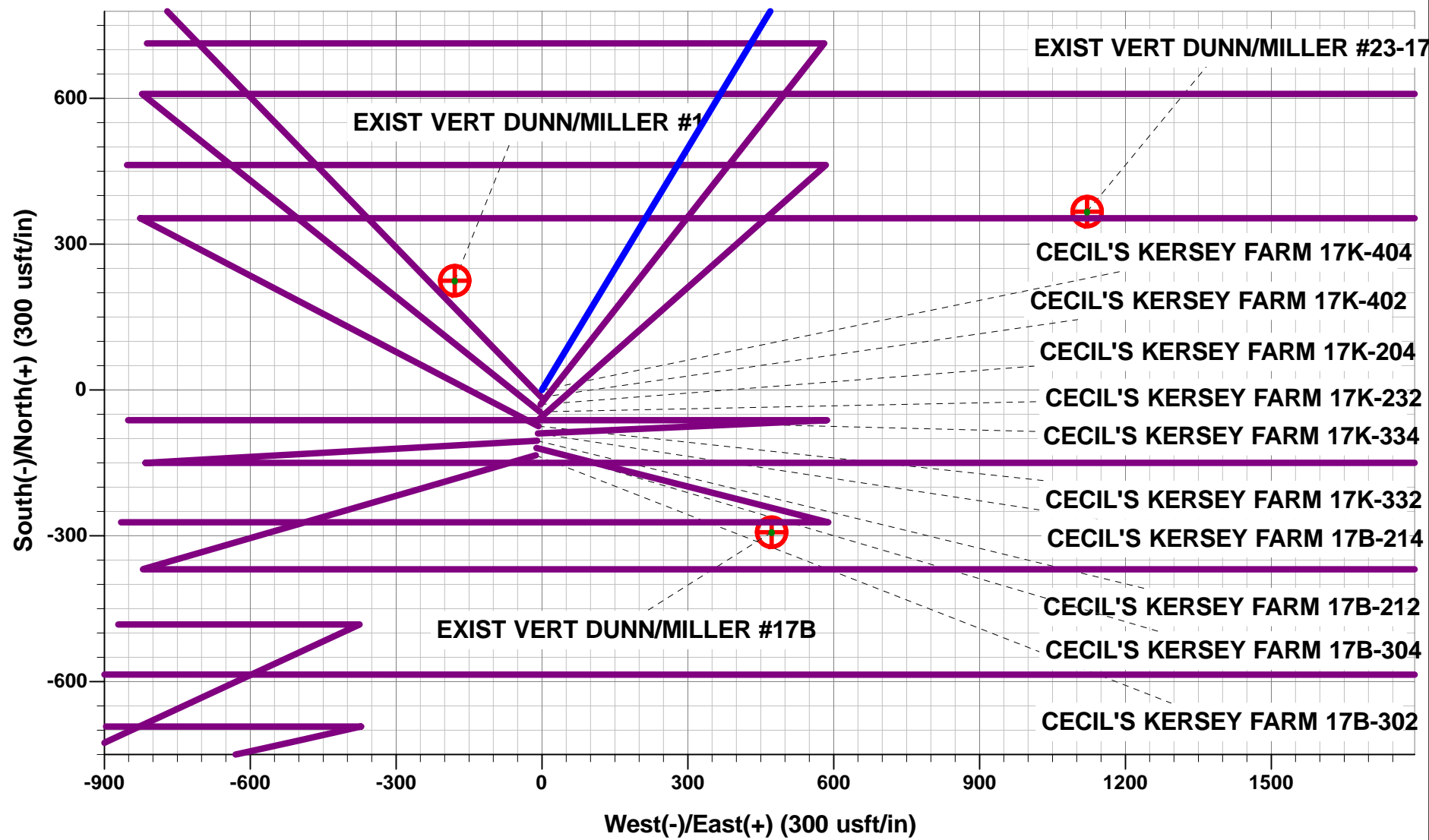
Project: WELD COUNTY, COLORADO  
Site: NW SW SEC. 17 T5N R64W 6th P.M.  
Well: CECIL'S KERSEY FARM 17K-404  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #2

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation
1050.0	1050.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1761.9	1769.4	14.39	31.07	77.0	46.4	-33.3	89.9	EOB TO 14.39° INC
5397.0	5522.2	14.39	31.07	875.6	527.6	-379.4	1022.3	END OF TANGENT
6108.8	6241.6	0.00	0.00	952.6	574.0	-412.7	1112.2	EOD TO VERTICAL
6138.8	6271.6	0.00	0.00	952.6	574.0	-412.7	1112.2	KOP (8°/100ft BUR)
6855.0	7392.6	89.68	270.00	952.6	-138.2	290.1	1824.4	7" ICP *NEW* - CECIL'S KERSEY FARM 17K-404 (P2)
6887.0	13080.1	89.68	270.00	952.6	-5825.6	5903.0	7511.8	BHL - CECIL'S KERSEY FARM 17K-404 (P2)

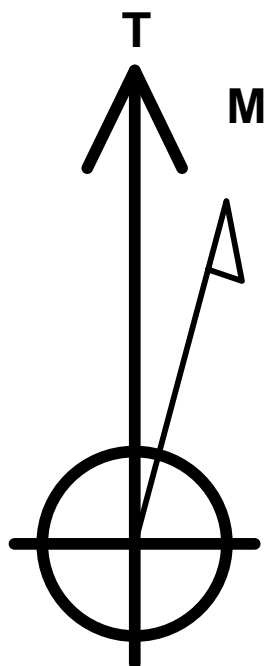
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - CECIL'S KERSEY FARM 17K-404 (P2)	6138.8	952.6	574.0	40.399358	-104.578325
7" ICP *NEW* - CECIL'S KERSEY FARM 17K-404 (P2)	6855.0	952.6	-138.2	40.399358	-104.580882
BHL - CECIL'S KERSEY FARM 17K-404 (P2)	6887.0	952.6	-5825.6	40.399356	-104.601302



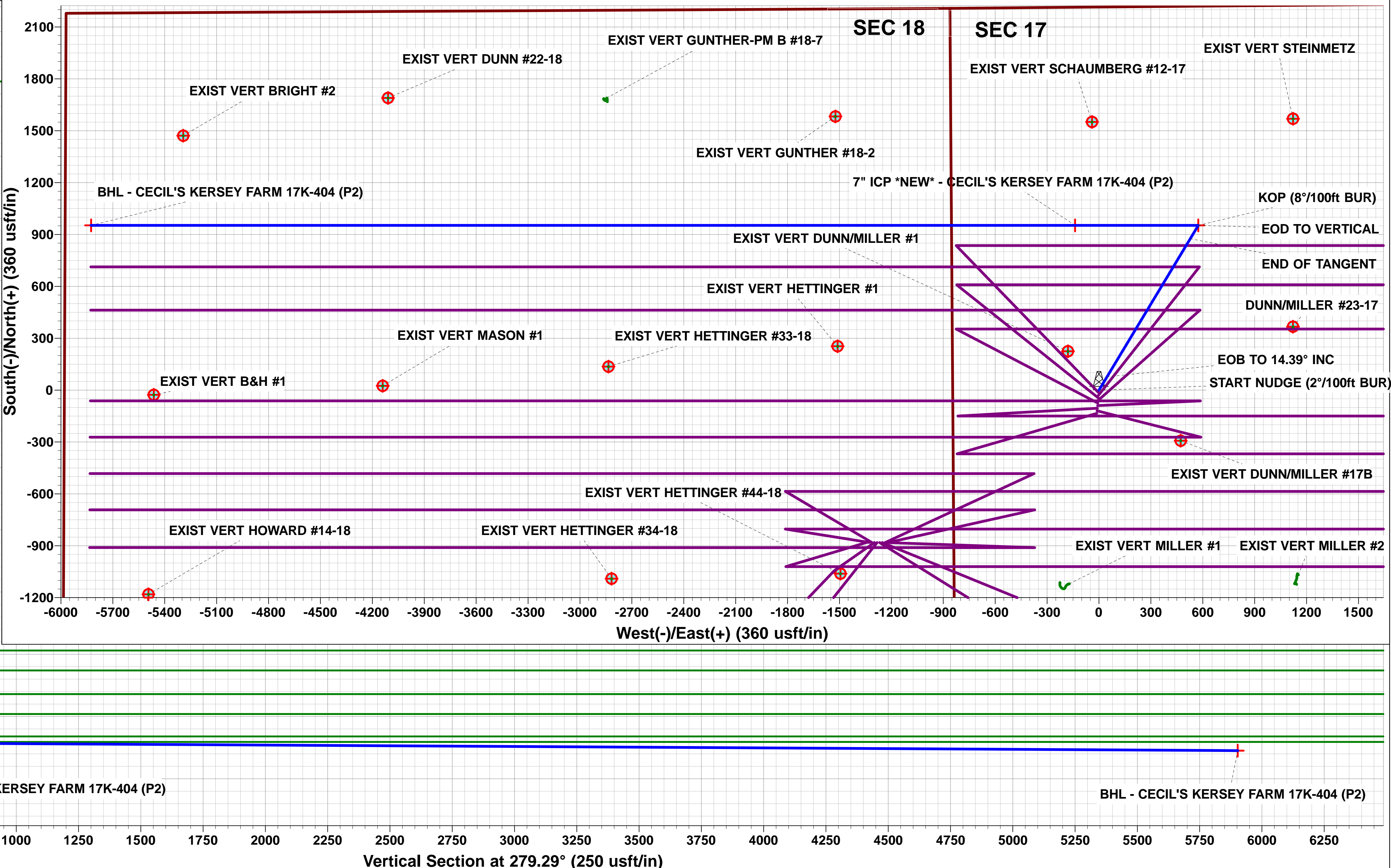
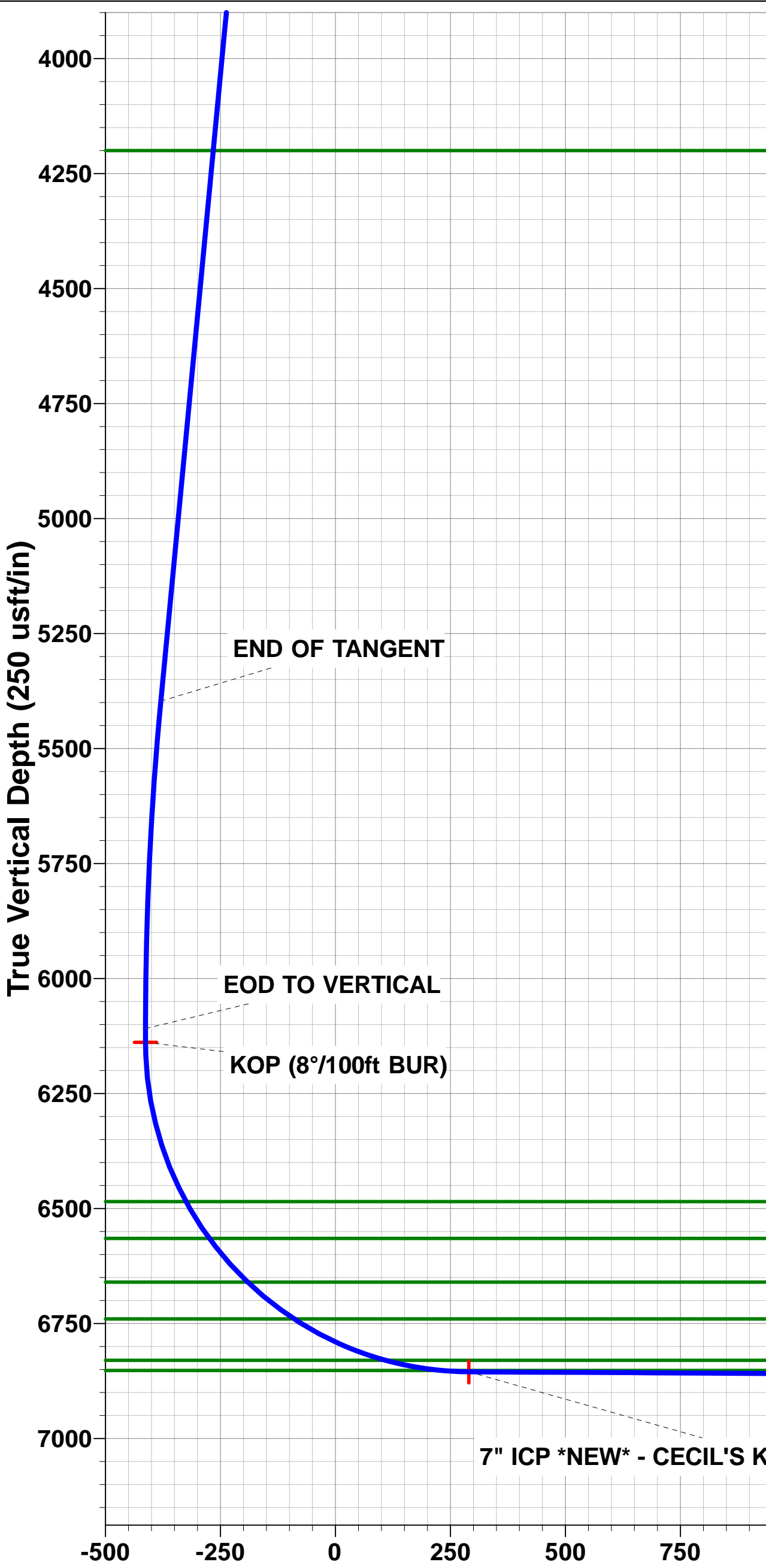
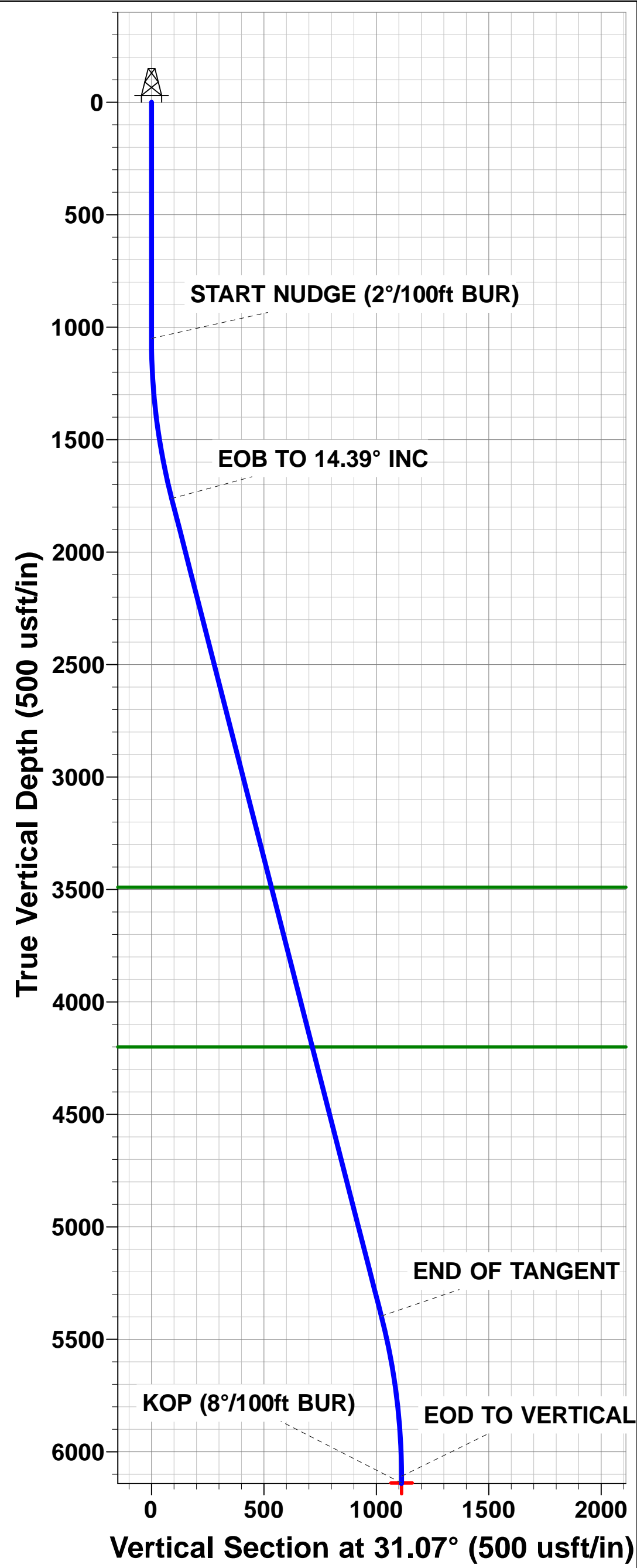
PROPOSED LOCAL COORDINATES:

SHL: 1754ft FSL & 845ft FWL of Sec 17  
7" ICP \*NEW\*: 2584.5ft FNL & 714.5ft FWL of Sec 17  
BHL: 2548ft FNL & 150ft FWL of Sec 18



Azimuths to True North  
Magnetic North: 8.30°

Magnetic Field  
Strength: 52614.7snT  
Dip Angle: 66.93°  
Date: 06/09/2015  
Model: IGRF2015



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well CECIL'S KERSEY FARM 17K-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 17 T5N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CECIL'S KERSEY FARM 17K-404	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

<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>	NW SW SEC. 17 T5N R64W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,388,702.00 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,256,129.74 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	40.396743
		<b>Longitude:</b>	-104.580386
		<b>Grid Convergence:</b>	0.59 °

<b>Well</b>	CECIL'S KERSEY FARM 17K-404		
<b>Well Position</b>	<b>+N-S</b>	0.0 usft	<b>Northing:</b> 1,388,702.00 usft
	<b>+E-W</b>	0.0 usft	<b>Easting:</b> 3,256,129.74 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	40.396743
		<b>Longitude:</b>	-104.580386
		<b>Ground Level:</b>	4,623.0 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	06/09/2015	8.30	66.93	52,615

<b>Design</b>	PROPOSAL #2			
<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>
	6,887.0	0.0	0.0	279.29

<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	-4,636.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	0.00	0.00	1,050.0	-3,586.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,769.4	14.39	31.07	1,761.8	-2,874.2	77.0	46.4	2.00	2.00	0.00	31.07	
5,522.2	14.39	31.07	5,397.0	761.0	875.6	527.6	0.00	0.00	0.00	0.00	
6,241.6	0.00	0.00	6,108.8	1,472.8	952.6	574.0	2.00	-2.00	0.00	180.00	
6,271.6	0.00	0.00	6,138.8	1,502.8	952.6	574.0	0.00	0.00	0.00	0.00	KOP - CECIL'S KEI
7,392.6	89.68	270.00	6,855.0	2,219.0	952.6	-138.2	8.00	8.00	-8.03	270.00	7" ICP *NEW* - CEI
13,080.1	89.68	270.00	6,887.0	2,251.0	952.6	-5,825.6	0.00	0.00	0.00	167.52	BHL - CECIL'S KEF

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well CECIL'S KERSEY FARM 17K-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 17 T5N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CECIL'S KERSEY FARM 17K-404	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

## 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)
0.0	0.00	0.00	0.0	4,636.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,536.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,436.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,336.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,236.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,136.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,036.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,936.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,836.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,736.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,636.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
1,050.0	0.00	0.00	1,050.0	3,586.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	1.00	31.07	1,100.0	3,536.00	0.4	0.2	-0.2	2.00	2.00	0.00
1,200.0	3.00	31.07	1,199.9	3,436.07	3.4	2.0	-1.5	2.00	2.00	0.00
1,300.0	5.00	31.07	1,299.7	3,336.32	9.3	5.6	-4.0	2.00	2.00	0.00
1,400.0	7.00	31.07	1,399.1	3,236.87	18.3	11.0	-7.9	2.00	2.00	0.00
1,500.0	9.00	31.07	1,498.2	3,137.85	30.2	18.2	-13.1	2.00	2.00	0.00
1,600.0	11.00	31.07	1,596.6	3,039.37	45.1	27.2	-19.5	2.00	2.00	0.00
1,700.0	13.00	31.07	1,694.4	2,941.56	62.9	37.9	-27.2	2.00	2.00	0.00
<b>EOB TO 14.39° INC</b>										
1,769.4	14.39	31.07	1,761.9	2,874.14	77.0	46.4	-33.3	2.00	2.00	0.00
1,800.0	14.39	31.07	1,791.5	2,844.50	83.5	50.3	-36.2	0.00	0.00	0.00
1,900.0	14.39	31.07	1,888.4	2,747.63	104.8	63.1	-45.4	0.00	0.00	0.00
2,000.0	14.39	31.07	1,985.2	2,650.77	126.0	75.9	-54.6	0.00	0.00	0.00
2,100.0	14.39	31.07	2,082.1	2,553.91	147.3	88.8	-63.8	0.00	0.00	0.00
2,200.0	14.39	31.07	2,179.0	2,457.04	168.6	101.6	-73.1	0.00	0.00	0.00
2,300.0	14.39	31.07	2,275.8	2,360.18	189.9	114.4	-82.3	0.00	0.00	0.00
2,400.0	14.39	31.07	2,372.7	2,263.31	211.2	127.2	-91.5	0.00	0.00	0.00
2,500.0	14.39	31.07	2,469.6	2,166.45	232.5	140.1	-100.7	0.00	0.00	0.00
2,600.0	14.39	31.07	2,566.4	2,069.59	253.7	152.9	-109.9	0.00	0.00	0.00
2,700.0	14.39	31.07	2,663.3	1,972.72	275.0	165.7	-119.2	0.00	0.00	0.00
2,800.0	14.39	31.07	2,760.1	1,875.86	296.3	178.5	-128.4	0.00	0.00	0.00
2,900.0	14.39	31.07	2,857.0	1,778.99	317.6	191.4	-137.6	0.00	0.00	0.00
3,000.0	14.39	31.07	2,953.9	1,682.13	338.9	204.2	-146.8	0.00	0.00	0.00
3,100.0	14.39	31.07	3,050.7	1,585.27	360.1	217.0	-156.0	0.00	0.00	0.00
3,200.0	14.39	31.07	3,147.6	1,488.40	381.4	229.8	-165.3	0.00	0.00	0.00
3,300.0	14.39	31.07	3,244.5	1,391.54	402.7	242.7	-174.5	0.00	0.00	0.00
3,400.0	14.39	31.07	3,341.3	1,294.67	424.0	255.5	-183.7	0.00	0.00	0.00
3,500.0	14.39	31.07	3,438.2	1,197.81	445.3	268.3	-192.9	0.00	0.00	0.00
<b>PARKMAN SANDSTONE</b>										
3,553.5	14.39	31.07	3,490.0	1,146.00	456.7	275.2	-197.9	0.00	0.00	0.00
3,600.0	14.39	31.07	3,535.1	1,100.95	466.6	281.1	-202.2	0.00	0.00	0.00
3,700.0	14.39	31.07	3,631.9	1,004.08	487.8	294.0	-211.4	0.00	0.00	0.00
3,800.0	14.39	31.07	3,728.8	907.22	509.1	306.8	-220.6	0.00	0.00	0.00
3,900.0	14.39	31.07	3,825.6	810.36	530.4	319.6	-229.8	0.00	0.00	0.00
4,000.0	14.39	31.07	3,922.5	713.49	551.7	332.4	-239.0	0.00	0.00	0.00
4,100.0	14.39	31.07	4,019.4	616.63	573.0	345.2	-248.3	0.00	0.00	0.00
4,200.0	14.39	31.07	4,116.2	519.76	594.3	358.1	-257.5	0.00	0.00	0.00
<b>SUSSEX SANDSTONE</b>										
4,286.5	14.39	31.07	4,200.0	436.00	612.7	369.2	-265.5	0.00	0.00	0.00
4,300.0	14.39	31.07	4,213.1	422.90	615.5	370.9	-266.7	0.00	0.00	0.00
4,400.0	14.39	31.07	4,310.0	326.04	636.8	383.7	-275.9	0.00	0.00	0.00
4,500.0	14.39	31.07	4,406.8	229.17	658.1	396.5	-285.1	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well CECIL'S KERSEY FARM 17K-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 17 T5N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CECIL'S KERSEY FARM 17K-404	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

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)
4,600.0	14.39	31.07	4,503.7	132.31	679.4	409.4	-294.4	0.00	0.00	0.00
4,700.0	14.39	31.07	4,600.6	35.44	700.7	422.2	-303.6	0.00	0.00	0.00
4,800.0	14.39	31.07	4,697.4	-61.42	721.9	435.0	-312.8	0.00	0.00	0.00
4,900.0	14.39	31.07	4,794.3	-158.28	743.2	447.8	-322.0	0.00	0.00	0.00
5,000.0	14.39	31.07	4,891.1	-255.15	764.5	460.7	-331.2	0.00	0.00	0.00
5,100.0	14.39	31.07	4,988.0	-352.01	785.8	473.5	-340.5	0.00	0.00	0.00
5,200.0	14.39	31.07	5,084.9	-448.87	807.1	486.3	-349.7	0.00	0.00	0.00
5,300.0	14.39	31.07	5,181.7	-545.74	828.4	499.1	-358.9	0.00	0.00	0.00
5,400.0	14.39	31.07	5,278.6	-642.60	849.6	512.0	-368.1	0.00	0.00	0.00
5,500.0	14.39	31.07	5,375.5	-739.47	870.9	524.8	-377.4	0.00	0.00	0.00
END OF TANGENT										
5,522.2	14.39	31.07	5,397.0	-760.97	875.6	527.6	-379.4	0.00	0.00	0.00
5,600.0	12.83	31.07	5,472.6	-836.58	891.3	537.1	-386.2	2.00	-2.00	0.00
5,700.0	10.83	31.07	5,570.5	-934.45	908.9	547.7	-393.8	2.00	-2.00	0.00
5,800.0	8.83	31.07	5,669.0	-1,032.98	923.5	556.5	-400.1	2.00	-2.00	0.00
5,900.0	6.83	31.07	5,768.0	-1,132.04	935.2	563.5	-405.2	2.00	-2.00	0.00
6,000.0	4.83	31.07	5,867.5	-1,231.52	943.9	568.7	-409.0	2.00	-2.00	0.00
6,100.0	2.83	31.07	5,967.3	-1,331.29	949.6	572.2	-411.4	2.00	-2.00	0.00
6,200.0	0.83	31.07	6,067.2	-1,431.24	952.3	573.8	-412.6	2.00	-2.00	0.00
EOD TO VERTICAL										
6,241.6	0.00	0.00	6,108.8	-1,472.83	952.6	574.0	-412.7	2.00	-2.00	0.00
KOP (8°/100ft BUR)										
6,271.6	0.00	0.00	6,138.8	-1,502.83	952.6	574.0	-412.7	0.00	0.00	0.00
6,300.0	2.27	270.00	6,167.2	-1,531.23	952.6	573.4	-412.2	8.01	8.01	0.00
6,400.0	10.27	270.00	6,266.5	-1,630.55	952.6	562.5	-401.4	8.00	8.00	0.00
6,500.0	18.27	270.00	6,363.4	-1,727.38	952.6	537.9	-377.1	8.00	8.00	0.00
6,600.0	26.27	270.00	6,455.8	-1,819.84	952.6	500.0	-339.7	8.00	8.00	0.00
SHARON SPRINGS										
6,632.9	28.91	270.00	6,485.0	-1,849.00	952.6	484.8	-324.7	8.00	8.00	0.00
6,700.0	34.27	270.00	6,542.1	-1,906.14	952.6	449.6	-290.0	8.00	8.00	0.00
NIOBRARA A										
6,728.1	36.52	270.00	6,565.0	-1,929.00	952.6	433.4	-274.0	8.00	8.00	0.00
6,800.0	42.27	270.00	6,620.6	-1,984.58	952.6	387.7	-228.9	8.00	8.00	0.00
NIOBRARA B										
6,855.3	46.70	270.00	6,660.0	-2,024.00	952.6	349.0	-190.7	8.00	8.00	0.00
6,900.0	50.27	270.00	6,689.6	-2,053.64	952.6	315.5	-157.7	8.00	8.00	0.00
NIOBRARA C										
6,985.1	57.08	270.00	6,740.0	-2,104.00	952.6	247.0	-90.1	8.00	8.00	0.00
7,000.0	58.27	270.00	6,748.0	-2,111.99	952.6	234.4	-77.6	8.00	8.00	0.00
7,100.0	66.27	270.00	6,794.5	-2,158.47	952.6	146.0	9.7	8.00	8.00	0.00
7,200.0	74.27	270.00	6,828.2	-2,192.20	952.6	51.9	102.5	8.00	8.00	0.00
FT HAYES										
7,206.8	74.81	270.00	6,830.0	-2,194.00	952.6	45.4	108.9	8.00	8.00	0.00
7,300.0	82.27	270.00	6,848.5	-2,212.51	952.6	-45.9	199.0	8.00	8.00	0.00
CODELL										
7,330.9	84.74	270.00	6,852.0	-2,216.00	952.6	-76.6	229.3	8.00	8.00	0.00
7" ICP *NEW* - CECIL'S KERSEY FARM 17K-404 (P2)										
7,392.6	89.68	270.00	6,855.0	-2,219.00	952.6	-138.2	290.1	8.00	8.00	0.00
7,400.0	89.68	270.00	6,855.0	-2,219.04	952.6	-145.6	297.4	0.00	0.00	0.00
7,500.0	89.68	270.00	6,855.6	-2,219.60	952.6	-245.6	396.1	0.00	0.00	0.00
7,600.0	89.68	270.00	6,856.2	-2,220.16	952.6	-345.6	494.8	0.00	0.00	0.00
7,700.0	89.68	270.00	6,856.7	-2,220.72	952.6	-445.6	593.5	0.00	0.00	0.00



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well CECIL'S KERSEY FARM 17K-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 17 T5N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CECIL'S KERSEY FARM 17K-404	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

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)
7,800.0	89.68	270.00	6,857.3	-2,221.28	952.6	-545.6	692.2	0.00	0.00	0.00
7,900.0	89.68	270.00	6,857.8	-2,221.84	952.6	-645.6	790.9	0.00	0.00	0.00
8,000.0	89.68	270.00	6,858.4	-2,222.40	952.6	-745.6	889.6	0.00	0.00	0.00
8,100.0	89.68	270.00	6,859.0	-2,222.96	952.6	-845.6	988.3	0.00	0.00	0.00
8,200.0	89.68	270.00	6,859.5	-2,223.53	952.6	-945.6	1,086.9	0.00	0.00	0.00
8,300.0	89.68	270.00	6,860.1	-2,224.09	952.6	-1,045.6	1,185.6	0.00	0.00	0.00
8,400.0	89.68	270.00	6,860.6	-2,224.65	952.6	-1,145.6	1,284.3	0.00	0.00	0.00
8,500.0	89.68	270.00	6,861.2	-2,225.21	952.6	-1,245.6	1,383.0	0.00	0.00	0.00
8,600.0	89.68	270.00	6,861.8	-2,225.77	952.6	-1,345.6	1,481.7	0.00	0.00	0.00
8,700.0	89.68	270.00	6,862.3	-2,226.33	952.6	-1,445.6	1,580.4	0.00	0.00	0.00
8,800.0	89.68	270.00	6,862.9	-2,226.89	952.6	-1,545.6	1,679.1	0.00	0.00	0.00
8,900.0	89.68	270.00	6,863.5	-2,227.45	952.6	-1,645.6	1,777.8	0.00	0.00	0.00
9,000.0	89.68	270.00	6,864.0	-2,228.01	952.6	-1,745.6	1,876.4	0.00	0.00	0.00
9,100.0	89.68	270.00	6,864.6	-2,228.58	952.6	-1,845.6	1,975.1	0.00	0.00	0.00
9,200.0	89.68	270.00	6,865.1	-2,229.14	952.6	-1,945.6	2,073.8	0.00	0.00	0.00
9,300.0	89.68	270.00	6,865.7	-2,229.70	952.6	-2,045.6	2,172.5	0.00	0.00	0.00
9,400.0	89.68	270.00	6,866.3	-2,230.26	952.6	-2,145.6	2,271.2	0.00	0.00	0.00
9,500.0	89.68	270.00	6,866.8	-2,230.82	952.6	-2,245.6	2,369.9	0.00	0.00	0.00
9,600.0	89.68	270.00	6,867.4	-2,231.39	952.6	-2,345.6	2,468.6	0.00	0.00	0.00
9,700.0	89.68	270.00	6,867.9	-2,231.95	952.6	-2,445.6	2,567.3	0.00	0.00	0.00
9,800.0	89.68	270.00	6,868.5	-2,232.51	952.6	-2,545.6	2,666.0	0.00	0.00	0.00
9,900.0	89.68	270.00	6,869.1	-2,233.07	952.6	-2,645.6	2,764.6	0.00	0.00	0.00
10,000.0	89.68	270.00	6,869.6	-2,233.63	952.6	-2,745.6	2,863.3	0.00	0.00	0.00
10,100.0	89.68	270.00	6,870.2	-2,234.20	952.6	-2,845.6	2,962.0	0.00	0.00	0.00
10,200.0	89.68	270.00	6,870.8	-2,234.76	952.6	-2,945.6	3,060.7	0.00	0.00	0.00
10,300.0	89.68	270.00	6,871.3	-2,235.32	952.6	-3,045.6	3,159.4	0.00	0.00	0.00
10,400.0	89.68	270.00	6,871.9	-2,235.88	952.6	-3,145.6	3,258.1	0.00	0.00	0.00
10,500.0	89.68	270.00	6,872.4	-2,236.45	952.6	-3,245.6	3,356.8	0.00	0.00	0.00
10,600.0	89.68	270.00	6,873.0	-2,237.01	952.6	-3,345.6	3,455.5	0.00	0.00	0.00
10,700.0	89.68	270.00	6,873.6	-2,237.57	952.6	-3,445.6	3,554.1	0.00	0.00	0.00
10,800.0	89.68	270.00	6,874.1	-2,238.14	952.6	-3,545.6	3,652.8	0.00	0.00	0.00
10,900.0	89.68	270.00	6,874.7	-2,238.70	952.6	-3,645.6	3,751.5	0.00	0.00	0.00
11,000.0	89.68	270.00	6,875.3	-2,239.26	952.6	-3,745.6	3,850.2	0.00	0.00	0.00
11,100.0	89.68	270.00	6,875.8	-2,239.83	952.6	-3,845.6	3,948.9	0.00	0.00	0.00
11,200.0	89.68	270.00	6,876.4	-2,240.39	952.6	-3,945.6	4,047.6	0.00	0.00	0.00
11,300.0	89.68	270.00	6,877.0	-2,240.95	952.6	-4,045.6	4,146.3	0.00	0.00	0.00
11,400.0	89.68	270.00	6,877.5	-2,241.52	952.6	-4,145.6	4,245.0	0.00	0.00	0.00
11,500.0	89.68	270.00	6,878.1	-2,242.08	952.6	-4,245.6	4,343.6	0.00	0.00	0.00
11,600.0	89.68	270.00	6,878.6	-2,242.64	952.6	-4,345.6	4,442.3	0.00	0.00	0.00
11,700.0	89.68	270.00	6,879.2	-2,243.21	952.6	-4,445.6	4,541.0	0.00	0.00	0.00
11,800.0	89.68	270.00	6,879.8	-2,243.77	952.6	-4,545.6	4,639.7	0.00	0.00	0.00
11,900.0	89.68	270.00	6,880.3	-2,244.34	952.6	-4,645.6	4,738.4	0.00	0.00	0.00
12,000.0	89.68	270.00	6,880.9	-2,244.90	952.6	-4,745.6	4,837.1	0.00	0.00	0.00
12,100.0	89.68	270.00	6,881.5	-2,245.46	952.6	-4,845.5	4,935.8	0.00	0.00	0.00
12,200.0	89.68	270.00	6,882.0	-2,246.03	952.6	-4,945.5	5,034.5	0.00	0.00	0.00
12,300.0	89.68	270.00	6,882.6	-2,246.59	952.6	-5,045.5	5,133.1	0.00	0.00	0.00
12,400.0	89.68	270.00	6,883.2	-2,247.16	952.6	-5,145.5	5,231.8	0.00	0.00	0.00
12,500.0	89.68	270.00	6,883.7	-2,247.72	952.6	-5,245.5	5,330.5	0.00	0.00	0.00
12,600.0	89.68	270.00	6,884.3	-2,248.29	952.6	-5,345.5	5,429.2	0.00	0.00	0.00
12,700.0	89.68	270.00	6,884.9	-2,248.85	952.6	-5,445.5	5,527.9	0.00	0.00	0.00
12,800.0	89.68	270.00	6,885.4	-2,249.42	952.6	-5,545.5	5,626.6	0.00	0.00	0.00
12,900.0	89.68	270.00	6,886.0	-2,249.98	952.6	-5,645.5	5,725.3	0.00	0.00	0.00
13,000.0	89.68	270.00	6,886.5	-2,250.55	952.6	-5,745.5	5,824.0	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well CECIL'S KERSEY FARM 17K-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4636.0usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 17 T5N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CECIL'S KERSEY FARM 17K-404	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

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>BHL - CECIL'S KERSEY FARM 17K-404 (P2)</b>										
13,080.1	89.68	270.00	6,887.0	-2,251.00	952.6	-5,825.6	5,903.0	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,553.5	3,490.0	PARKMAN SANDSTONE		0.00		
4,286.5	4,200.0	SUSSEX SANDSTONE		0.00		
6,632.9	6,485.0	SHARON SPRINGS		0.00		
6,728.1	6,565.0	NIOBRARA A		0.00		
6,855.3	6,660.0	NIOBRARA B		0.00		
6,985.1	6,740.0	NIOBRARA C		0.00		
7,206.8	6,830.0	FT HAYES		0.00		
7,330.9	6,852.0	CODELL		0.00		

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,050.0	1,050.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,769.4	1,761.9	77.0	46.4	EOB TO 14.39° INC
5,522.2	5,397.0	875.6	527.6	END OF TANGENT
6,241.6	6,108.8	952.6	574.0	EOD TO VERTICAL
6,271.6	6,138.8	952.6	574.0	KOP (8°/100ft BUR)
7,392.6	6,855.0	952.6	-138.2	7" ICP *NEW* - CECIL'S KERSEY FARM 17K-404 (P2)
13,080.1	6,887.0	952.6	-5,825.6	BHL - CECIL'S KERSEY FARM 17K-404 (P2)