

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NE NW SEC. 22 T12N R64W 6th P.M.

COX 4

ORIGINAL WELLBORE

01 September, 2015

Plan: PROPOSAL #6



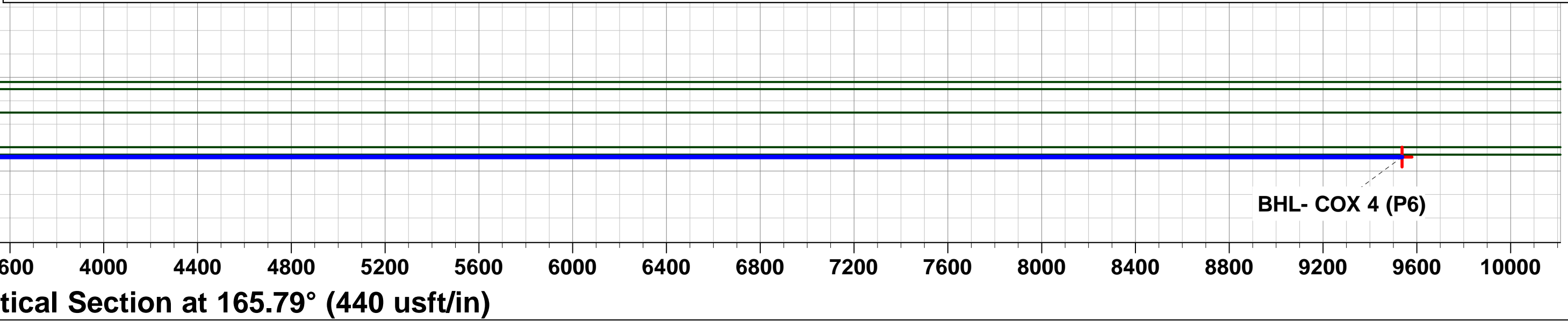
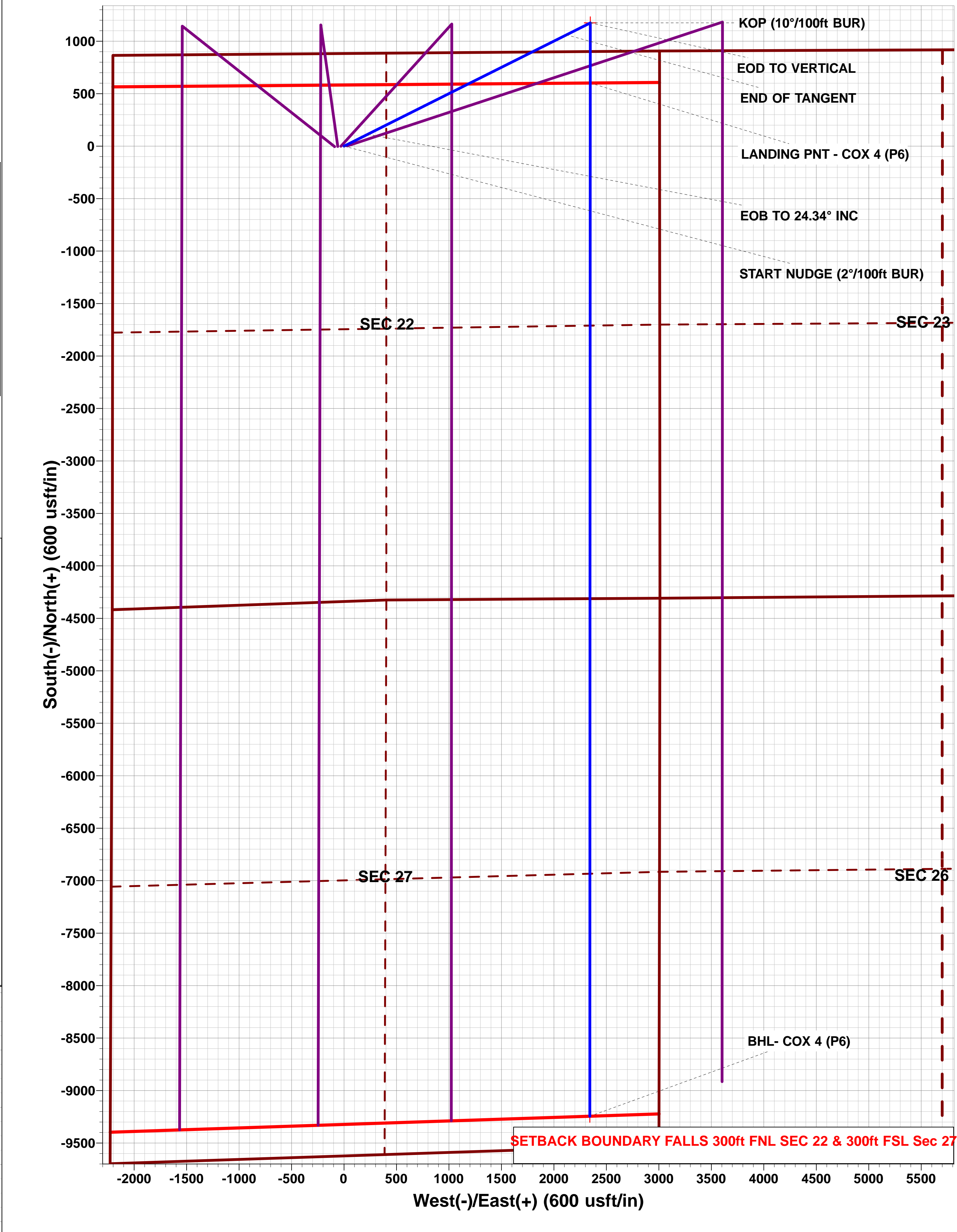
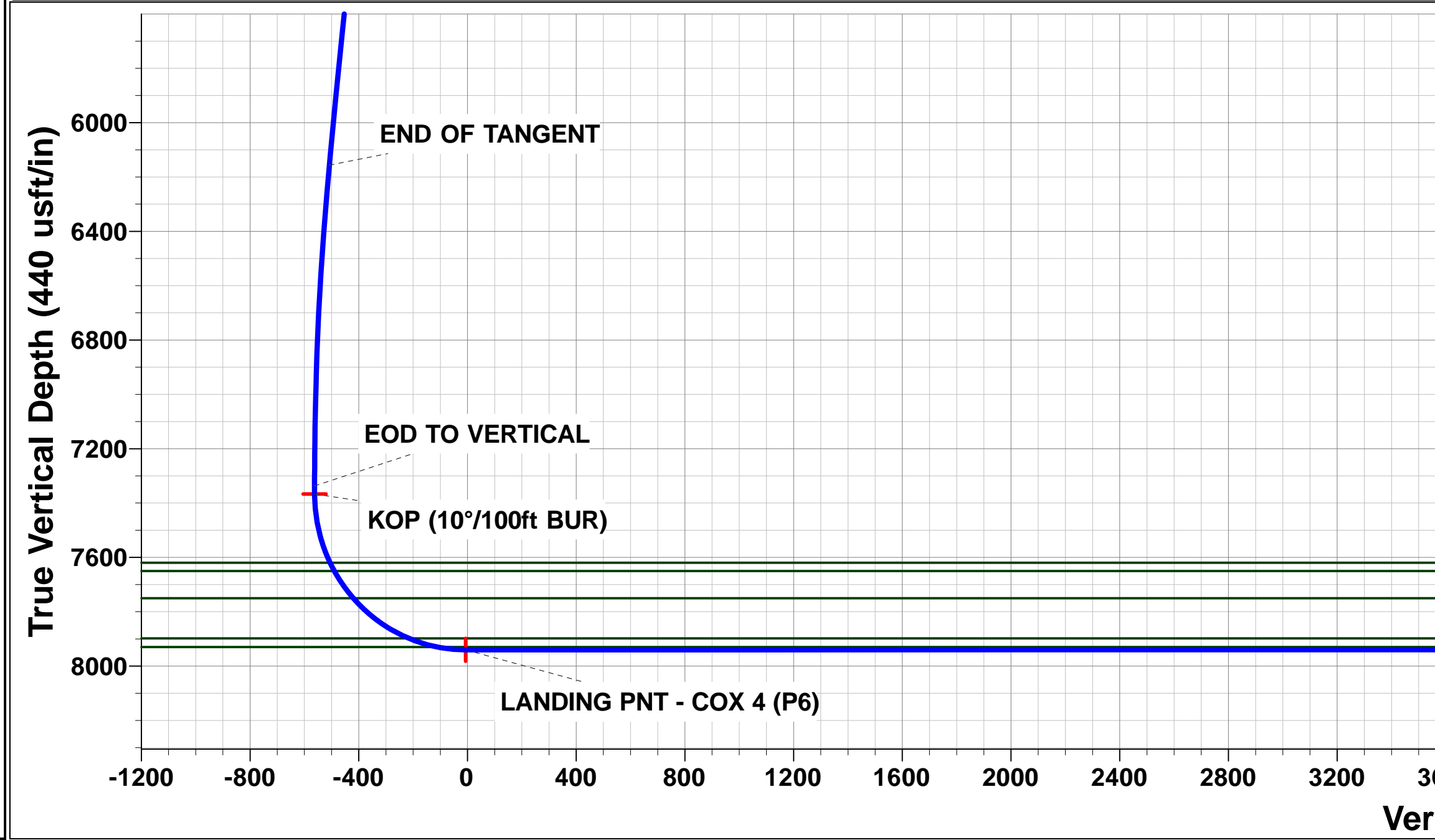
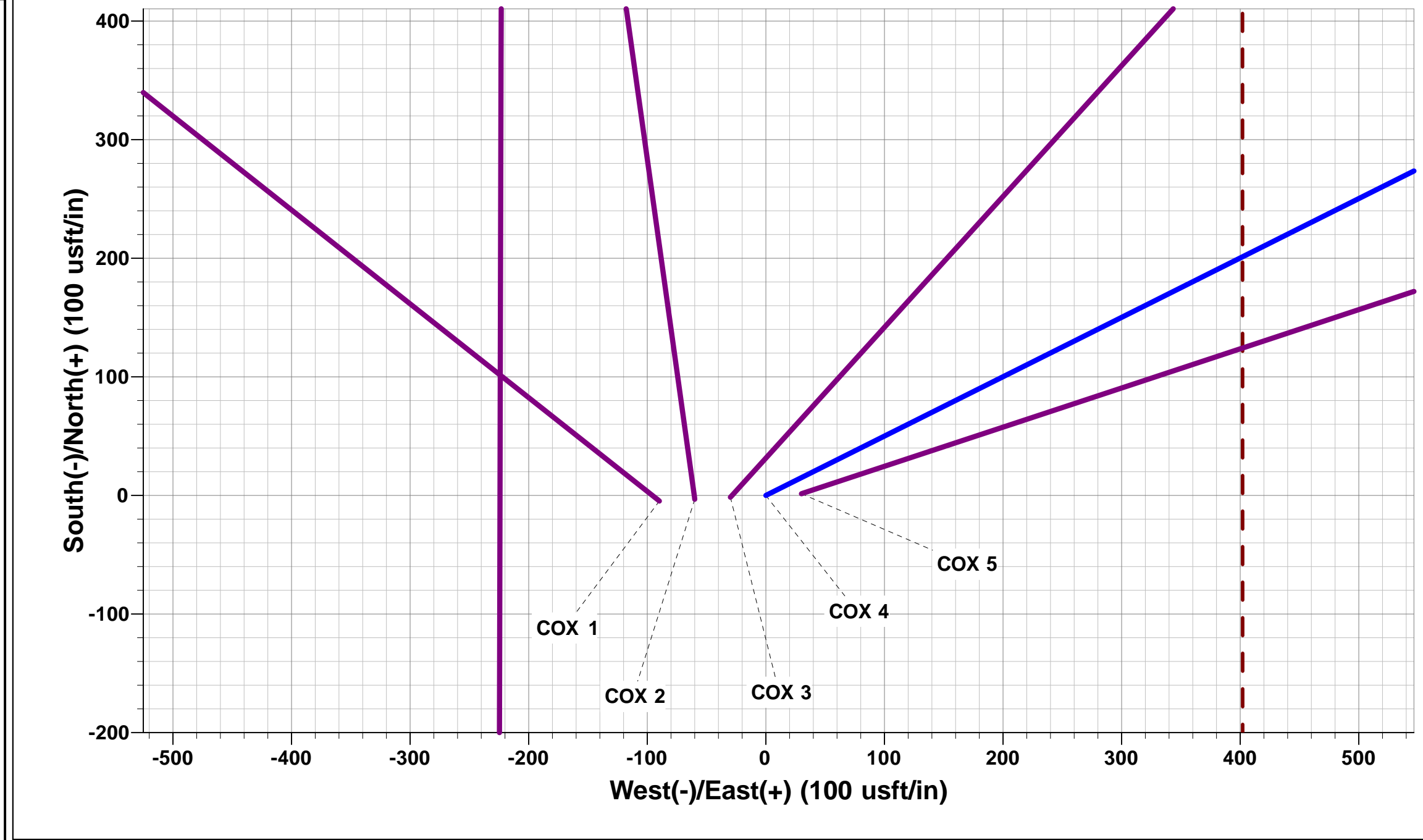
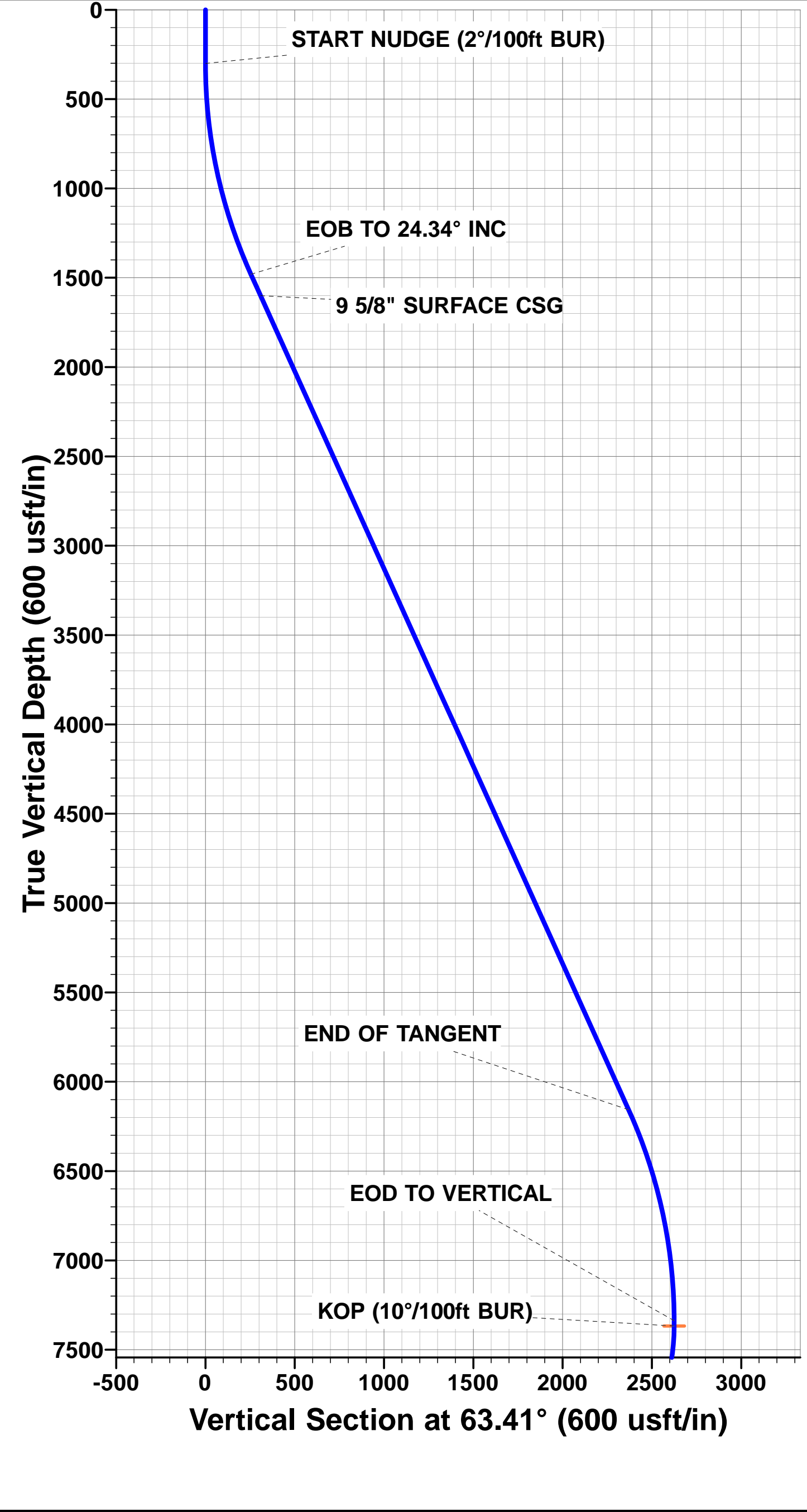


Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 22 T12N R64W 6th P.M.
Well: COX 4
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #6

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
300.0	300.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
1480.7	1517.0	24.34	63.41	114.0	227.7	-54.6	254.6	EOB TO 24.34° INC	
1600.0	1647.9	24.34	63.41	138.1	275.9	-66.1	308.6	9 5/8" SURFACE CSG	
6156.3	6648.7	24.34	63.41	1060.7	2118.9	-508.0	2369.6	END OF TANGENT	
7337.0	7865.6	0.00	63.41	1174.7	2346.6	-562.5	2624.2	EOD TO VERTICAL	
7367.0	7895.6	0.00	0.00	1174.7	2346.6	-562.5	2624.2	KOP (10°/100ft BUR)	
7940.0	8795.7	90.00	180.03	601.7	2346.3	-7.2	3197.2	LANDING PNT - COX 4 (P6)	
7940.0	18642.4	90.00	180.02	-9245.0	2341.8	9537.0	13043.9	BHL - COX 4 (P6)	

PROPOSED LOCAL COORDINATES:	
SHL: 883ft FNL & 2203ft FWL Sec 22	
LANDING PNT: 300ft FNL & 660ft FEL Sec 22	
BHL: 300ft FSL & 660ft FEL Sec 27	

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - COX 4 (P6)	7367.0	1174.7	2346.6	41.001856	-104.526299
BHL- COX 4 (P6)	7940.0	-9245.0	2341.8	40.973257	-104.526320
LANDING PNT - COX 4 (P6)	7940.0	601.7	2346.3	41.000283	-104.526300



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #6		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	NE NW SEC. 22 T12N R64W 6th P.M.		
Site Position:		Northing:	1,608,102.79 usft
From:	Lat/Long	Easting:	3,266,349.34 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.998619
		Longitude:	-104.535125
		Grid Convergence:	0.62 °

Well	COX 4		
Well Position	+N/-S	4.7 usft	Northing:
	+E/-W	89.7 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	17/04/2015	8.37	67.42	52,967

Design	PROPOSAL #6			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	165.79

Plan Sections											
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	-5,572.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-5,272.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,517.0	24.34	63.41	1,480.7	-4,091.3	114.0	227.7	2.00	2.00	0.00	63.41	
6,648.7	24.34	63.41	6,156.3	584.3	1,060.7	2,118.9	0.00	0.00	0.00	0.00	
7,865.6	0.00	0.00	7,337.0	1,765.0	1,174.7	2,346.6	2.00	-2.00	0.00	180.00	
7,895.6	0.00	0.00	7,367.0	1,795.0	1,174.7	2,346.6	0.00	0.00	0.00	0.00	KOP - COX 4 (P6)
8,795.7	90.00	180.03	7,940.0	2,368.0	601.7	2,346.3	10.00	10.00	-19.99	180.03	LANDING PNT - COX 4 (P6)
18,642.4	90.00	180.02	7,940.0	2,368.0	-9,245.0	2,341.8	0.00	0.00	0.00	-116.11	BHL- COX 4 (P6)

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #6		

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	5,572.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	5,472.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	5,372.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
300.0	0.00	0.00	300.0	5,272.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	63.41	400.0	5,172.02	0.8	1.6	-0.4	2.00	2.00	0.00
500.0	4.00	63.41	499.8	5,072.16	3.1	6.2	-1.5	2.00	2.00	0.00
600.0	6.00	63.41	599.5	4,972.55	7.0	14.0	-3.4	2.00	2.00	0.00
700.0	8.00	63.41	698.7	4,873.30	12.5	24.9	-6.0	2.00	2.00	0.00
800.0	10.00	63.41	797.5	4,774.53	19.5	38.9	-9.3	2.00	2.00	0.00
900.0	12.00	63.41	895.6	4,676.38	28.0	56.0	-13.4	2.00	2.00	0.00
1,000.0	14.00	63.41	993.1	4,578.94	38.1	76.1	-18.2	2.00	2.00	0.00
1,100.0	16.00	63.41	1,089.6	4,482.36	49.7	99.2	-23.8	2.00	2.00	0.00
1,200.0	18.00	63.41	1,185.3	4,386.73	62.8	125.4	-30.1	2.00	2.00	0.00
1,300.0	20.00	63.41	1,279.8	4,292.18	77.3	154.5	-37.0	2.00	2.00	0.00
1,400.0	22.00	63.41	1,373.2	4,198.83	93.4	186.5	-44.7	2.00	2.00	0.00
1,500.0	24.00	63.41	1,465.2	4,106.79	110.9	221.5	-53.1	2.00	2.00	0.00
EOB TO 24.34° INC										
1,517.0	24.34	63.41	1,480.7	4,091.28	114.0	227.7	-54.6	1.99	1.99	0.00
1,600.0	24.34	63.41	1,556.3	4,015.65	129.3	258.3	-61.9	0.00	0.00	0.00
9 5/8" SURFACE CSG										
1,647.9	24.34	63.41	1,600.0	3,972.00	138.1	275.9	-66.1	0.00	0.00	0.00
1,700.0	24.34	63.41	1,647.5	3,924.54	147.7	295.1	-70.8	0.00	0.00	0.00
1,800.0	24.34	63.41	1,738.6	3,833.43	166.2	332.0	-79.6	0.00	0.00	0.00
1,900.0	24.34	63.41	1,829.7	3,742.32	184.6	368.8	-88.4	0.00	0.00	0.00
2,000.0	24.34	63.41	1,920.8	3,651.20	203.1	405.7	-97.3	0.00	0.00	0.00
2,100.0	24.34	63.41	2,011.9	3,560.09	221.5	442.6	-106.1	0.00	0.00	0.00
2,200.0	24.34	63.41	2,103.0	3,468.98	240.0	479.4	-114.9	0.00	0.00	0.00
2,300.0	24.34	63.41	2,194.1	3,377.87	258.4	516.3	-123.8	0.00	0.00	0.00
2,400.0	24.34	63.41	2,285.2	3,286.75	276.9	553.1	-132.6	0.00	0.00	0.00
2,500.0	24.34	63.41	2,376.4	3,195.64	295.3	590.0	-141.4	0.00	0.00	0.00
2,600.0	24.34	63.41	2,467.5	3,104.53	313.8	626.8	-150.3	0.00	0.00	0.00
2,700.0	24.34	63.41	2,558.6	3,013.42	332.2	663.7	-159.1	0.00	0.00	0.00
2,800.0	24.34	63.41	2,649.7	2,922.31	350.7	700.5	-167.9	0.00	0.00	0.00
2,900.0	24.34	63.41	2,740.8	2,831.19	369.1	737.4	-176.8	0.00	0.00	0.00
3,000.0	24.34	63.41	2,831.9	2,740.08	387.6	774.2	-185.6	0.00	0.00	0.00
3,100.0	24.34	63.41	2,923.0	2,648.97	406.0	811.1	-194.4	0.00	0.00	0.00
3,200.0	24.34	63.41	3,014.1	2,557.86	424.5	847.9	-203.3	0.00	0.00	0.00
3,300.0	24.34	63.41	3,105.3	2,466.75	442.9	884.8	-212.1	0.00	0.00	0.00
PARKMAN										
3,373.3	24.34	63.41	3,172.0	2,400.00	456.4	911.8	-218.6	0.00	0.00	0.00
3,400.0	24.34	63.41	3,196.4	2,375.63	461.4	921.7	-220.9	0.00	0.00	0.00
3,500.0	24.34	63.41	3,287.5	2,284.52	479.8	958.5	-229.8	0.00	0.00	0.00
3,600.0	24.34	63.41	3,378.6	2,193.41	498.3	995.4	-238.6	0.00	0.00	0.00
3,700.0	24.34	63.41	3,469.7	2,102.30	516.7	1,032.2	-247.4	0.00	0.00	0.00
3,800.0	24.34	63.41	3,560.8	2,011.18	535.2	1,069.1	-256.3	0.00	0.00	0.00
3,900.0	24.34	63.41	3,651.9	1,920.07	553.6	1,105.9	-265.1	0.00	0.00	0.00
4,000.0	24.34	63.41	3,743.0	1,828.96	572.1	1,142.8	-273.9	0.00	0.00	0.00
4,100.0	24.34	63.41	3,834.2	1,737.85	590.5	1,179.6	-282.8	0.00	0.00	0.00
4,200.0	24.34	63.41	3,925.3	1,646.74	609.0	1,216.5	-291.6	0.00	0.00	0.00
4,300.0	24.34	63.41	4,016.4	1,555.62	627.4	1,253.3	-300.5	0.00	0.00	0.00
4,400.0	24.34	63.41	4,107.5	1,464.51	645.9	1,290.2	-309.3	0.00	0.00	0.00
4,500.0	24.34	63.41	4,198.6	1,373.40	664.3	1,327.0	-318.1	0.00	0.00	0.00
4,600.0	24.34	63.41	4,289.7	1,282.29	682.8	1,363.9	-327.0	0.00	0.00	0.00

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
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Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #6		

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)
4,700.0	24.34	63.41	4,380.8	1,191.17	701.2	1,400.8	-335.8	0.00	0.00	0.00
4,800.0	24.34	63.41	4,471.9	1,100.06	719.7	1,437.6	-344.6	0.00	0.00	0.00
4,900.0	24.34	63.41	4,563.1	1,008.95	738.1	1,474.5	-353.5	0.00	0.00	0.00
5,000.0	24.34	63.41	4,654.2	917.84	756.6	1,511.3	-362.3	0.00	0.00	0.00
5,100.0	24.34	63.41	4,745.3	826.73	775.0	1,548.2	-371.1	0.00	0.00	0.00
5,200.0	24.34	63.41	4,836.4	735.61	793.5	1,585.0	-380.0	0.00	0.00	0.00
5,300.0	24.34	63.41	4,927.5	644.50	811.9	1,621.9	-388.8	0.00	0.00	0.00
SUSSEX										
5,398.2	24.34	63.41	5,017.0	555.00	830.0	1,658.1	-397.5	0.00	0.00	0.00
5,400.0	24.34	63.41	5,018.6	553.39	830.4	1,658.7	-397.6	0.00	0.00	0.00
5,500.0	24.34	63.41	5,109.7	462.28	848.8	1,695.6	-406.5	0.00	0.00	0.00
5,600.0	24.34	63.41	5,200.8	371.16	867.3	1,732.4	-415.3	0.00	0.00	0.00
5,700.0	24.34	63.41	5,291.9	280.05	885.7	1,769.3	-424.1	0.00	0.00	0.00
5,800.0	24.34	63.41	5,383.1	188.94	904.2	1,806.1	-433.0	0.00	0.00	0.00
SHANNON										
5,840.5	24.34	63.41	5,420.0	152.00	911.6	1,821.1	-436.6	0.00	0.00	0.00
5,900.0	24.34	63.41	5,474.2	97.83	922.6	1,843.0	-441.8	0.00	0.00	0.00
6,000.0	24.34	63.41	5,565.3	6.72	941.1	1,879.9	-450.6	0.00	0.00	0.00
6,100.0	24.34	63.41	5,656.4	-84.40	959.5	1,916.7	-459.5	0.00	0.00	0.00
6,200.0	24.34	63.41	5,747.5	-175.51	977.9	1,953.6	-468.3	0.00	0.00	0.00
6,300.0	24.34	63.41	5,838.6	-266.62	996.4	1,990.4	-477.1	0.00	0.00	0.00
6,400.0	24.34	63.41	5,929.7	-357.73	1,014.8	2,027.3	-486.0	0.00	0.00	0.00
6,500.0	24.34	63.41	6,020.8	-448.85	1,033.3	2,064.1	-494.8	0.00	0.00	0.00
6,600.0	24.34	63.41	6,112.0	-539.96	1,051.7	2,101.0	-503.7	0.00	0.00	0.00
END OF TANGENT										
6,648.7	24.34	63.41	6,156.3	-584.33	1,060.7	2,118.9	-508.0	0.00	0.00	0.00
6,700.0	23.31	63.41	6,203.3	-631.26	1,070.0	2,137.5	-512.4	2.00	-2.00	0.00
6,800.0	21.31	63.41	6,295.8	-723.76	1,087.0	2,171.4	-520.5	2.00	-2.00	0.00
6,900.0	19.31	63.41	6,389.5	-817.54	1,102.5	2,202.4	-528.0	2.00	-2.00	0.00
7,000.0	17.31	63.41	6,484.5	-912.47	1,116.6	2,230.5	-534.7	2.00	-2.00	0.00
7,100.0	15.31	63.41	6,580.4	-1,008.44	1,129.2	2,255.7	-540.7	2.00	-2.00	0.00
7,200.0	13.31	63.41	6,677.3	-1,105.33	1,140.2	2,277.8	-546.0	2.00	-2.00	0.00
7,300.0	11.31	63.41	6,775.0	-1,203.03	1,149.8	2,296.8	-550.6	2.00	-2.00	0.00
7,400.0	9.31	63.41	6,873.4	-1,301.41	1,157.8	2,312.8	-554.4	2.00	-2.00	0.00
7,500.0	7.31	63.41	6,972.4	-1,400.35	1,164.3	2,325.8	-557.5	2.00	-2.00	0.00
7,600.0	5.31	63.41	7,071.7	-1,499.74	1,169.2	2,335.6	-559.9	2.00	-2.00	0.00
7,700.0	3.31	63.41	7,171.5	-1,599.45	1,172.6	2,342.3	-561.5	2.00	-2.00	0.00
7,800.0	1.31	63.41	7,271.4	-1,699.36	1,174.4	2,345.9	-562.4	2.00	-2.00	0.00
EOD TO VERTICAL										
7,865.6	0.00	63.41	7,337.0	-1,764.96	1,174.7	2,346.6	-562.5	2.00	-2.00	0.00
KOP (10°/100ft BUR)										
7,895.6	0.00	0.00	7,367.0	-1,794.96	1,174.7	2,346.6	-562.5	0.00	0.00	0.00
7,900.0	0.44	180.03	7,371.4	-1,799.36	1,174.7	2,346.6	-562.5	9.91	9.91	0.00
8,000.0	10.44	180.03	7,470.8	-1,898.78	1,165.2	2,346.6	-553.3	10.00	10.00	0.00
8,100.0	20.43	180.03	7,567.1	-1,995.05	1,138.6	2,346.6	-527.6	10.00	10.00	0.00
SHARON SPRINGS										
8,157.7	26.20	180.03	7,620.0	-2,048.00	1,115.8	2,346.6	-505.5	10.00	10.00	0.00
NIOBRARA										
8,191.6	29.60	180.03	7,650.0	-2,078.00	1,099.9	2,346.6	-490.1	10.00	10.00	0.00
8,200.0	30.43	180.03	7,657.2	-2,085.25	1,095.8	2,346.6	-486.0	10.00	10.00	0.00
8,300.0	40.43	180.03	7,738.6	-2,166.62	1,037.9	2,346.5	-429.9	10.00	10.00	0.00
NIO B										
8,315.1	41.94	180.03	7,750.0	-2,178.00	1,027.9	2,346.5	-420.2	10.00	10.00	0.00

Planning Report



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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #6		

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)
8,400.0	50.43	180.03	7,808.7	-2,236.71	966.7	2,346.5	-360.9	10.00	10.00	0.00
8,500.0	60.43	180.03	7,865.4	-2,293.38	884.5	2,346.4	-281.2	10.00	10.00	0.00
FORT HAYS										
8,575.0	67.93	180.03	7,898.0	-2,326.00	817.0	2,346.4	-215.9	10.00	10.00	0.00
8,600.0	70.43	180.03	7,906.9	-2,334.90	793.6	2,346.4	-193.2	10.00	10.00	0.00
CODELL										
8,688.5	79.28	180.03	7,930.0	-2,358.00	708.3	2,346.3	-110.5	10.00	10.00	0.00
8,700.0	80.43	180.03	7,932.0	-2,360.03	697.0	2,346.3	-99.5	10.00	10.00	0.00
LANDING PNT - COX 4 (P6)										
8,795.7	90.00	180.03	7,940.0	-2,368.00	601.7	2,346.3	-7.2	10.00	10.00	0.00
8,800.0	90.00	180.03	7,940.0	-2,368.00	597.4	2,346.3	-3.0	0.09	0.09	0.00
8,900.0	90.00	180.03	7,940.0	-2,367.99	497.4	2,346.2	93.9	0.00	0.00	0.00
9,000.0	90.00	180.03	7,940.0	-2,367.99	397.4	2,346.2	190.9	0.00	0.00	0.00
9,100.0	90.00	180.03	7,940.0	-2,367.98	297.4	2,346.1	287.8	0.00	0.00	0.00
9,200.0	90.00	180.03	7,940.0	-2,367.98	197.4	2,346.0	384.7	0.00	0.00	0.00
9,300.0	90.00	180.03	7,940.0	-2,367.97	97.4	2,346.0	481.6	0.00	0.00	0.00
9,400.0	90.00	180.03	7,940.0	-2,367.97	-2.6	2,345.9	578.6	0.00	0.00	0.00
9,500.0	90.00	180.03	7,940.0	-2,367.96	-102.6	2,345.9	675.5	0.00	0.00	0.00
9,600.0	90.00	180.03	7,940.0	-2,367.96	-202.6	2,345.8	772.4	0.00	0.00	0.00
9,700.0	90.00	180.03	7,940.0	-2,367.96	-302.6	2,345.8	869.3	0.00	0.00	0.00
9,800.0	90.00	180.03	7,940.0	-2,367.95	-402.6	2,345.7	966.3	0.00	0.00	0.00
9,900.0	90.00	180.03	7,939.9	-2,367.95	-502.6	2,345.7	1,063.2	0.00	0.00	0.00
10,000.0	90.00	180.03	7,939.9	-2,367.94	-602.6	2,345.6	1,160.1	0.00	0.00	0.00
10,100.0	90.00	180.03	7,939.9	-2,367.94	-702.6	2,345.6	1,257.0	0.00	0.00	0.00
10,200.0	90.00	180.03	7,939.9	-2,367.93	-802.6	2,345.5	1,354.0	0.00	0.00	0.00
10,300.0	90.00	180.03	7,939.9	-2,367.93	-902.6	2,345.5	1,450.9	0.00	0.00	0.00
10,400.0	90.00	180.03	7,939.9	-2,367.93	-1,002.6	2,345.4	1,547.8	0.00	0.00	0.00
10,500.0	90.00	180.03	7,939.9	-2,367.92	-1,102.6	2,345.3	1,644.7	0.00	0.00	0.00
10,600.0	90.00	180.03	7,939.9	-2,367.92	-1,202.6	2,345.3	1,741.7	0.00	0.00	0.00
10,700.0	90.00	180.03	7,939.9	-2,367.92	-1,302.6	2,345.2	1,838.6	0.00	0.00	0.00
10,800.0	90.00	180.03	7,939.9	-2,367.91	-1,402.6	2,345.2	1,935.5	0.00	0.00	0.00
10,900.0	90.00	180.03	7,939.9	-2,367.91	-1,502.6	2,345.1	2,032.4	0.00	0.00	0.00
11,000.0	90.00	180.03	7,939.9	-2,367.91	-1,602.6	2,345.1	2,129.4	0.00	0.00	0.00
11,100.0	90.00	180.03	7,939.9	-2,367.90	-1,702.6	2,345.0	2,226.3	0.00	0.00	0.00
11,200.0	90.00	180.03	7,939.9	-2,367.90	-1,802.6	2,345.0	2,323.2	0.00	0.00	0.00
11,300.0	90.00	180.03	7,939.9	-2,367.90	-1,902.6	2,344.9	2,420.1	0.00	0.00	0.00
11,400.0	90.00	180.03	7,939.9	-2,367.90	-2,002.6	2,344.9	2,517.1	0.00	0.00	0.00
11,500.0	90.00	180.03	7,939.9	-2,367.89	-2,102.6	2,344.8	2,614.0	0.00	0.00	0.00
11,600.0	90.00	180.03	7,939.9	-2,367.89	-2,202.6	2,344.8	2,710.9	0.00	0.00	0.00
11,700.0	90.00	180.03	7,939.9	-2,367.89	-2,302.6	2,344.7	2,807.8	0.00	0.00	0.00
11,800.0	90.00	180.03	7,939.9	-2,367.88	-2,402.6	2,344.7	2,904.8	0.00	0.00	0.00
11,900.0	90.00	180.03	7,939.9	-2,367.88	-2,502.6	2,344.6	3,001.7	0.00	0.00	0.00
12,000.0	90.00	180.03	7,939.9	-2,367.88	-2,602.6	2,344.6	3,098.6	0.00	0.00	0.00
12,100.0	90.00	180.03	7,939.9	-2,367.88	-2,702.6	2,344.5	3,195.5	0.00	0.00	0.00
12,200.0	90.00	180.03	7,939.9	-2,367.88	-2,802.6	2,344.5	3,292.5	0.00	0.00	0.00
12,300.0	90.00	180.03	7,939.9	-2,367.88	-2,902.6	2,344.4	3,389.4	0.00	0.00	0.00
12,400.0	90.00	180.03	7,939.9	-2,367.88	-3,002.6	2,344.4	3,486.3	0.00	0.00	0.00
12,500.0	90.00	180.03	7,939.9	-2,367.87	-3,102.6	2,344.3	3,583.2	0.00	0.00	0.00
12,600.0	90.00	180.03	7,939.9	-2,367.87	-3,202.6	2,344.3	3,680.2	0.00	0.00	0.00
12,700.0	90.00	180.03	7,939.9	-2,367.87	-3,302.6	2,344.2	3,777.1	0.00	0.00	0.00
12,800.0	90.00	180.03	7,939.9	-2,367.87	-3,402.6	2,344.2	3,874.0	0.00	0.00	0.00
12,900.0	90.00	180.03	7,939.9	-2,367.87	-3,502.6	2,344.1	3,971.0	0.00	0.00	0.00
13,000.0	90.00	180.03	7,939.9	-2,367.87	-3,602.6	2,344.1	4,067.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #6		

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)
13,100.0	90.00	180.03	7,939.9	-2,367.87	-3,702.6	2,344.0	4,164.8	0.00	0.00	0.00
13,200.0	90.00	180.03	7,939.9	-2,367.87	-3,802.6	2,344.0	4,261.7	0.00	0.00	0.00
13,300.0	90.00	180.03	7,939.9	-2,367.87	-3,902.6	2,344.0	4,358.7	0.00	0.00	0.00
13,400.0	90.00	180.03	7,939.9	-2,367.87	-4,002.6	2,343.9	4,455.6	0.00	0.00	0.00
13,500.0	90.00	180.03	7,939.9	-2,367.87	-4,102.6	2,343.9	4,552.5	0.00	0.00	0.00
13,600.0	90.00	180.03	7,939.9	-2,367.87	-4,202.6	2,343.8	4,649.4	0.00	0.00	0.00
13,700.0	90.00	180.03	7,939.9	-2,367.87	-4,302.6	2,343.8	4,746.4	0.00	0.00	0.00
13,800.0	90.00	180.03	7,939.9	-2,367.87	-4,402.6	2,343.7	4,843.3	0.00	0.00	0.00
13,900.0	90.00	180.03	7,939.9	-2,367.87	-4,502.6	2,343.7	4,940.2	0.00	0.00	0.00
14,000.0	90.00	180.03	7,939.9	-2,367.87	-4,602.6	2,343.6	5,037.2	0.00	0.00	0.00
14,100.0	90.00	180.03	7,939.9	-2,367.87	-4,702.6	2,343.6	5,134.1	0.00	0.00	0.00
14,200.0	90.00	180.03	7,939.9	-2,367.87	-4,802.6	2,343.5	5,231.0	0.00	0.00	0.00
14,300.0	90.00	180.03	7,939.9	-2,367.87	-4,902.6	2,343.5	5,327.9	0.00	0.00	0.00
14,400.0	90.00	180.03	7,939.9	-2,367.87	-5,002.6	2,343.5	5,424.9	0.00	0.00	0.00
14,500.0	90.00	180.03	7,939.9	-2,367.87	-5,102.6	2,343.4	5,521.8	0.00	0.00	0.00
14,600.0	90.00	180.02	7,939.9	-2,367.87	-5,202.6	2,343.4	5,618.7	0.00	0.00	0.00
14,700.0	90.00	180.02	7,939.9	-2,367.87	-5,302.6	2,343.3	5,715.6	0.00	0.00	0.00
14,800.0	90.00	180.02	7,939.9	-2,367.87	-5,402.6	2,343.3	5,812.6	0.00	0.00	0.00
14,900.0	90.00	180.02	7,939.9	-2,367.87	-5,502.6	2,343.2	5,909.5	0.00	0.00	0.00
15,000.0	90.00	180.02	7,939.9	-2,367.87	-5,602.6	2,343.2	6,006.4	0.00	0.00	0.00
15,100.0	90.00	180.02	7,939.9	-2,367.88	-5,702.6	2,343.2	6,103.4	0.00	0.00	0.00
15,200.0	90.00	180.02	7,939.9	-2,367.88	-5,802.6	2,343.1	6,200.3	0.00	0.00	0.00
15,300.0	90.00	180.02	7,939.9	-2,367.88	-5,902.6	2,343.1	6,297.2	0.00	0.00	0.00
15,400.0	90.00	180.02	7,939.9	-2,367.88	-6,002.6	2,343.0	6,394.1	0.00	0.00	0.00
15,500.0	90.00	180.02	7,939.9	-2,367.88	-6,102.6	2,343.0	6,491.1	0.00	0.00	0.00
15,600.0	90.00	180.02	7,939.9	-2,367.89	-6,202.6	2,342.9	6,588.0	0.00	0.00	0.00
15,700.0	90.00	180.02	7,939.9	-2,367.89	-6,302.6	2,342.9	6,684.9	0.00	0.00	0.00
15,800.0	90.00	180.02	7,939.9	-2,367.89	-6,402.6	2,342.9	6,781.9	0.00	0.00	0.00
15,900.0	90.00	180.02	7,939.9	-2,367.89	-6,502.6	2,342.8	6,878.8	0.00	0.00	0.00
16,000.0	90.00	180.02	7,939.9	-2,367.89	-6,602.6	2,342.8	6,975.7	0.00	0.00	0.00
16,100.0	90.00	180.02	7,939.9	-2,367.90	-6,702.6	2,342.7	7,072.6	0.00	0.00	0.00
16,200.0	90.00	180.02	7,939.9	-2,367.90	-6,802.6	2,342.7	7,169.6	0.00	0.00	0.00
16,300.0	90.00	180.02	7,939.9	-2,367.90	-6,902.6	2,342.7	7,266.5	0.00	0.00	0.00
16,400.0	90.00	180.02	7,939.9	-2,367.91	-7,002.6	2,342.6	7,363.4	0.00	0.00	0.00
16,500.0	90.00	180.02	7,939.9	-2,367.91	-7,102.6	2,342.6	7,460.4	0.00	0.00	0.00
16,600.0	90.00	180.02	7,939.9	-2,367.91	-7,202.6	2,342.5	7,557.3	0.00	0.00	0.00
16,700.0	90.00	180.02	7,939.9	-2,367.91	-7,302.6	2,342.5	7,654.2	0.00	0.00	0.00
16,800.0	90.00	180.02	7,939.9	-2,367.92	-7,402.6	2,342.5	7,751.1	0.00	0.00	0.00
16,900.0	90.00	180.02	7,939.9	-2,367.92	-7,502.6	2,342.4	7,848.1	0.00	0.00	0.00
17,000.0	90.00	180.02	7,939.9	-2,367.93	-7,602.6	2,342.4	7,945.0	0.00	0.00	0.00
17,100.0	90.00	180.02	7,939.9	-2,367.93	-7,702.6	2,342.4	8,041.9	0.00	0.00	0.00
17,200.0	90.00	180.02	7,939.9	-2,367.93	-7,802.6	2,342.3	8,138.9	0.00	0.00	0.00
17,300.0	90.00	180.02	7,939.9	-2,367.94	-7,902.6	2,342.3	8,235.8	0.00	0.00	0.00
17,400.0	90.00	180.02	7,939.9	-2,367.94	-8,002.6	2,342.2	8,332.7	0.00	0.00	0.00
17,500.0	90.00	180.02	7,939.9	-2,367.94	-8,102.6	2,342.2	8,429.6	0.00	0.00	0.00
17,600.0	90.00	180.02	7,939.9	-2,367.95	-8,202.6	2,342.2	8,526.6	0.00	0.00	0.00
17,700.0	90.00	180.02	7,940.0	-2,367.95	-8,302.6	2,342.1	8,623.5	0.00	0.00	0.00
17,800.0	90.00	180.02	7,940.0	-2,367.96	-8,402.6	2,342.1	8,720.4	0.00	0.00	0.00
17,900.0	90.00	180.02	7,940.0	-2,367.96	-8,502.6	2,342.1	8,817.4	0.00	0.00	0.00
18,000.0	90.00	180.02	7,940.0	-2,367.97	-8,602.6	2,342.0	8,914.3	0.00	0.00	0.00
18,100.0	90.00	180.02	7,940.0	-2,367.97	-8,702.6	2,342.0	9,011.2	0.00	0.00	0.00
18,200.0	90.00	180.02	7,940.0	-2,367.98	-8,802.6	2,342.0	9,108.2	0.00	0.00	0.00
18,300.0	90.00	180.02	7,940.0	-2,367.98	-8,902.6	2,341.9	9,205.1	0.00	0.00	0.00
18,400.0	90.00	180.02	7,940.0	-2,367.99	-9,002.6	2,341.9	9,302.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #6		

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)
18,500.0	90.00	180.02	7,940.0	-2,367.99	-9,102.6	2,341.8	9,398.9	0.00	0.00	0.00
18,600.0	90.00	180.02	7,940.0	-2,368.00	-9,202.6	2,341.8	9,495.9	0.00	0.00	0.00
BHL - COX 4 (P6)										
18,642.4	90.00	180.02	7,940.0	-2,368.00	-9,245.0	2,341.8	9,537.0	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,373.3	3,172.0	PARKMAN		0.00	
5,398.2	5,017.0	SUSSEX		0.00	
5,840.5	5,420.0	SHANNON		0.00	
8,157.7	7,620.0	SHARON SPRINGS		0.00	
8,191.6	7,650.0	NIOBRARA		0.00	
8,315.1	7,750.0	NIO B		0.00	
8,575.0	7,898.0	FORT HAYS		0.00	
8,688.5	7,930.0	CODELL		0.00	

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.0	300.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,517.0	1,480.7	114.0	227.7	EOB TO 24.34° INC
1,647.9	1,600.0	138.1	275.9	9 5/8" SURFACE CSG
6,648.7	6,156.3	1,060.7	2,118.9	END OF TANGENT
7,865.6	7,337.0	1,174.7	2,346.6	EOD TO VERTICAL
7,895.6	7,367.0	1,174.7	2,346.6	KOP (10°/100ft BUR)
8,795.7	7,940.0	601.7	2,346.3	LANDING PNT - COX 4 (P6)
18,642.4	7,940.0	-9,245.0	2,341.8	BHL - COX 4 (P6)