

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

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

COX 5

ORIGINAL WELLBORE

01 July, 2015

Plan: PROPOSAL #4



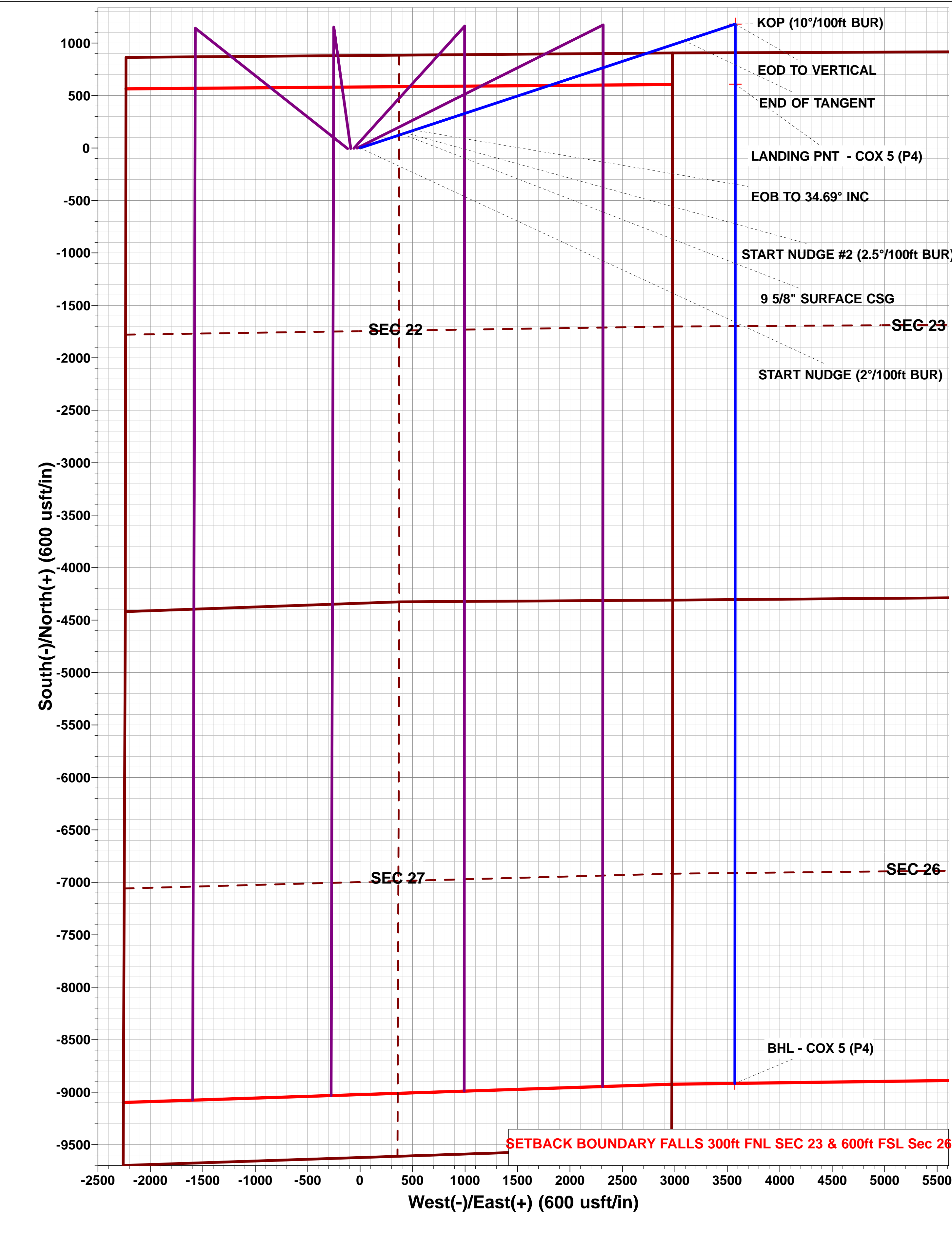
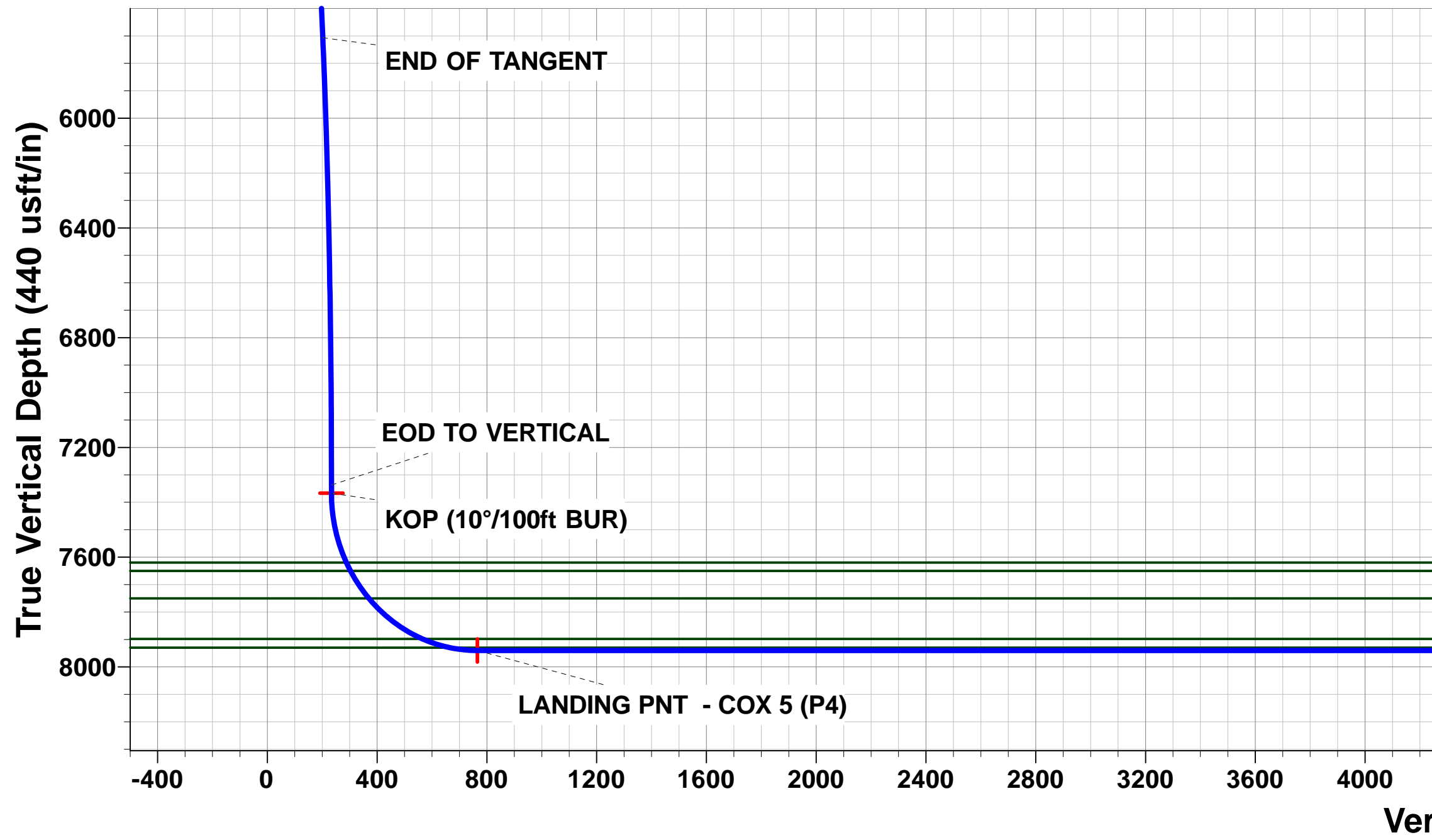
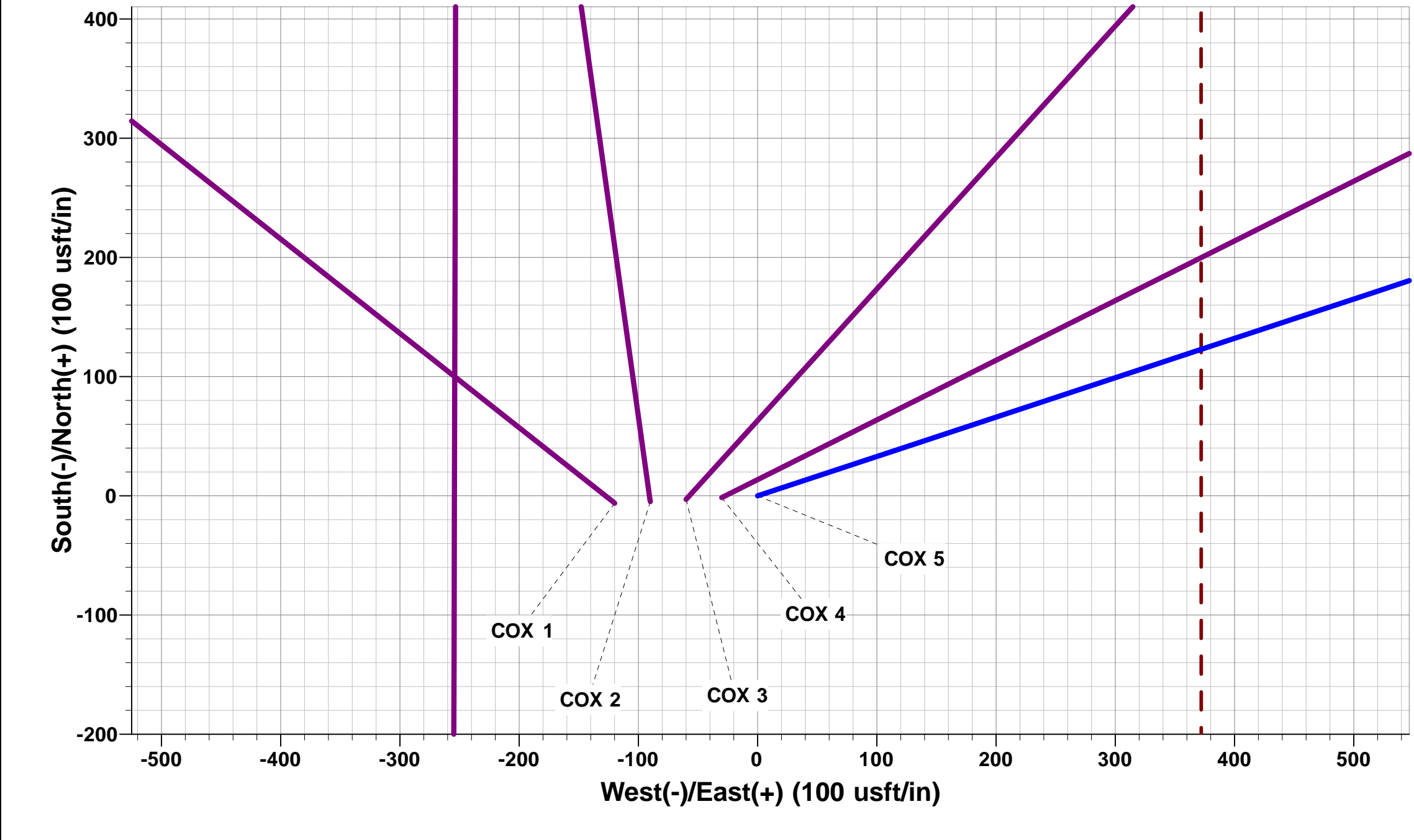
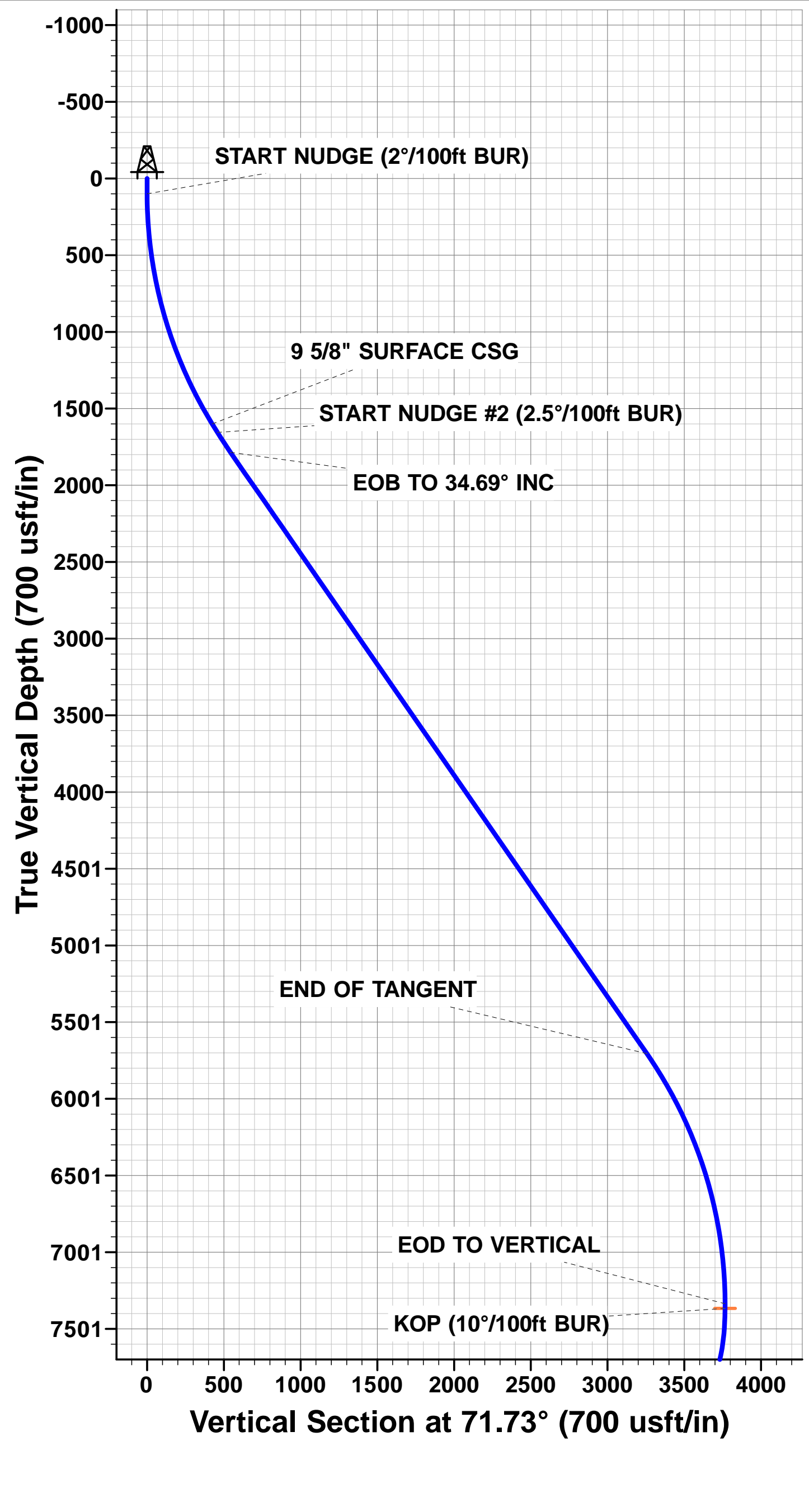


Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 22 T12N R64W 6th P.M.
Well: COX 5
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #4

ANNOTATIONS								
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1600.0	1678.7	31.57	71.72	133.0	402.7	26.3	424.1	9 5/8" SURFACE CSG
1655.4	1743.7	31.57	71.73	143.7	435.0	28.4	458.1	START NUDGE #2 (2.5°/100ft BUR)
1785.8	1899.4	34.69	71.73	170.4	515.8	33.6	543.2	EOB TO 34.69° INC
5706.6	6667.8	34.69	71.73	1021.3	3092.7	202.0	3257.0	END OF TANGENT
7337.0	8402.2	0.00	71.73	1181.0	3576.2	233.5	3766.2	EOD TO VERTICAL
7367.0	8432.2	0.00	0.00	1181.0	3576.2	233.5	3766.2	KOP (10°/100ft BUR)
7940.0	9332.3	90.00	180.02	608.0	3576.0	765.4	4339.2	LANDING PNT (P4) - COX 5
7940.0	18856.9	90.00	180.03	-8916.6	3571.9	9605.4	13863.8	BHL (P4) - COX 5

PROPOSED LOCAL COORDINATES:
SHL: 882ft FNL & 2233ft FWL Sec 22
LANDING PNT: 300ft FNL & 600ft FWL Sec 23
BHL: 600ft FSL & 600ft FWL Sec 26

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - COX 5 (P4)	7367.0	1181.0	3576.2	41.001877	-104.521735
LANDING PNT - COX 5 (P4)	7940.0	608.0	3576.0	41.000304	-104.521736
BHL - COX 5 (P4)	7940.0	-8916.6	3571.9	40.974162	-104.521756



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 5
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 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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 5		
Well Position	+N/-S	6.2 usft	Northing:
	+E/-W	119.8 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	14/05/2015	8.36	67.42	52,959

Design	PROPOSAL #4			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	7,940.0	0.0	0.0	158.17

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	
100.0	0.00	0.00	100.0	-5,472.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,678.7	31.57	71.72	1,600.0	-3,972.0	133.0	402.7	2.00	2.00	0.00	71.72	
1,743.7	31.57	71.73	1,655.4	-3,916.6	143.7	435.0	0.00	0.00	0.00	0.00	
1,899.4	34.69	71.73	1,785.8	-3,786.2	170.4	515.8	2.00	2.00	0.00	0.00	
6,667.8	34.69	71.73	5,706.6	134.6	1,021.3	3,092.7	0.00	0.00	0.00	0.00	
8,402.2	0.00	0.00	7,337.0	1,765.0	1,181.0	3,576.2	2.00	-2.00	0.00	180.00	
8,432.2	0.00	0.00	7,367.0	1,795.0	1,181.0	3,576.2	0.00	0.00	0.00	0.00	KOP - COX 5 (P4)
9,332.3	90.00	180.02	7,940.0	2,368.0	608.0	3,576.0	10.00	10.00	-20.00	180.02	LANDING PNT - C
18,856.9	90.00	180.03	7,940.0	2,368.0	-8,916.6	3,571.9	0.00	0.00	0.00	85.51	BHL - COX 5 (P4)

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 5
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 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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
START NUDGE (2°/100ft BUR)										
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	2.00	71.72	200.0	5,372.02	0.5	1.7	0.1	2.00	2.00	0.00
300.0	4.00	71.72	299.8	5,272.16	2.2	6.6	0.4	2.00	2.00	0.00
400.0	6.00	71.72	399.5	5,172.55	4.9	14.9	1.0	2.00	2.00	0.00
500.0	8.00	71.72	498.7	5,073.30	8.7	26.5	1.7	2.00	2.00	0.00
600.0	10.00	71.72	597.5	4,974.53	13.7	41.3	2.7	2.00	2.00	0.00
700.0	12.00	71.72	695.6	4,876.38	19.6	59.4	3.9	2.00	2.00	0.00
800.0	14.00	71.72	793.1	4,778.94	26.7	80.8	5.3	2.00	2.00	0.00
900.0	16.00	71.72	889.6	4,682.36	34.8	105.4	6.9	2.00	2.00	0.00
1,000.0	18.00	71.72	985.3	4,586.73	44.0	133.1	8.7	2.00	2.00	0.00
1,100.0	20.00	71.72	1,079.8	4,492.18	54.2	164.0	10.7	2.00	2.00	0.00
1,200.0	22.00	71.72	1,173.2	4,398.83	65.4	198.1	12.9	2.00	2.00	0.00
1,300.0	24.00	71.72	1,265.2	4,306.79	77.7	235.2	15.3	2.00	2.00	0.00
1,400.0	26.00	71.72	1,355.8	4,216.16	90.9	275.3	18.0	2.00	2.00	0.00
1,500.0	28.00	71.72	1,444.9	4,127.06	105.2	318.4	20.8	2.00	2.00	0.00
1,600.0	30.00	71.72	1,532.4	4,039.61	120.4	364.4	23.8	2.00	2.00	0.00
9 5/8" SURFACE CSG										
1,678.7	31.57	71.72	1,600.0	3,972.00	133.0	402.7	26.3	2.00	2.00	0.00
1,700.0	31.57	71.72	1,618.1	3,953.85	136.5	413.3	27.0	0.00	0.00	0.00
START NUDGE #2 (2.5°/100ft BUR)										
1,743.7	31.57	71.73	1,655.4	3,916.62	143.7	435.0	28.4	0.01	0.00	0.01
1,800.0	32.70	71.73	1,703.1	3,868.95	153.1	463.4	30.2	2.00	2.00	0.00
EOB TO 34.69° INC										
1,899.4	34.69	71.73	1,785.8	3,786.25	170.4	515.8	33.6	2.00	2.00	0.00
1,900.0	34.69	71.73	1,786.2	3,785.76	170.5	516.1	33.7	0.07	0.07	0.00
2,000.0	34.69	71.73	1,868.5	3,703.53	188.3	570.2	37.2	0.00	0.00	0.00
2,100.0	34.69	71.73	1,950.7	3,621.30	206.2	624.2	40.7	0.00	0.00	0.00
2,200.0	34.69	71.73	2,032.9	3,539.08	224.0	678.2	44.3	0.00	0.00	0.00
2,300.0	34.69	71.73	2,115.1	3,456.85	241.9	732.3	47.8	0.00	0.00	0.00
2,400.0	34.69	71.73	2,197.4	3,374.63	259.7	786.3	51.3	0.00	0.00	0.00
2,500.0	34.69	71.73	2,279.6	3,292.40	277.6	840.4	54.8	0.00	0.00	0.00
2,600.0	34.69	71.73	2,361.8	3,210.18	295.4	894.4	58.4	0.00	0.00	0.00
2,700.0	34.69	71.73	2,444.1	3,127.95	313.2	948.5	61.9	0.00	0.00	0.00
2,800.0	34.69	71.73	2,526.3	3,045.72	331.1	1,002.5	65.4	0.00	0.00	0.00
2,900.0	34.69	71.73	2,608.5	2,963.50	348.9	1,056.5	69.0	0.00	0.00	0.00
3,000.0	34.69	71.73	2,690.7	2,881.27	366.8	1,110.6	72.5	0.00	0.00	0.00
3,100.0	34.69	71.73	2,773.0	2,799.05	384.6	1,164.6	76.0	0.00	0.00	0.00
3,200.0	34.69	71.73	2,855.2	2,716.82	402.5	1,218.7	79.6	0.00	0.00	0.00
3,300.0	34.69	71.73	2,937.4	2,634.59	420.3	1,272.7	83.1	0.00	0.00	0.00
3,400.0	34.69	71.73	3,019.6	2,552.37	438.2	1,326.7	86.6	0.00	0.00	0.00
3,500.0	34.69	71.73	3,101.9	2,470.14	456.0	1,380.8	90.1	0.00	0.00	0.00
PARKMAN										
3,585.3	34.69	71.73	3,172.0	2,400.00	471.2	1,426.9	93.2	0.00	0.00	0.00
3,600.0	34.69	71.73	3,184.1	2,387.92	473.9	1,434.8	93.7	0.00	0.00	0.00
3,700.0	34.69	71.73	3,266.3	2,305.69	491.7	1,488.9	97.2	0.00	0.00	0.00
3,800.0	34.69	71.73	3,348.5	2,223.46	509.6	1,542.9	100.7	0.00	0.00	0.00
3,900.0	34.69	71.73	3,430.8	2,141.24	527.4	1,596.9	104.3	0.00	0.00	0.00
4,000.0	34.69	71.73	3,513.0	2,059.01	545.2	1,651.0	107.8	0.00	0.00	0.00
4,100.0	34.69	71.73	3,595.2	1,976.79	563.1	1,705.0	111.3	0.00	0.00	0.00
4,200.0	34.69	71.73	3,677.4	1,894.56	580.9	1,759.1	114.9	0.00	0.00	0.00
4,300.0	34.69	71.73	3,759.7	1,812.33	598.8	1,813.1	118.4	0.00	0.00	0.00
4,400.0	34.69	71.73	3,841.9	1,730.11	616.6	1,867.2	121.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 5
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 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
4,500.0	34.69	71.73	3,924.1	1,647.88	634.5	1,921.2	125.4	0.00	0.00	0.00
4,600.0	34.69	71.73	4,006.3	1,565.66	652.3	1,975.2	129.0	0.00	0.00	0.00
4,700.0	34.69	71.73	4,088.6	1,483.43	670.2	2,029.3	132.5	0.00	0.00	0.00
4,800.0	34.69	71.73	4,170.8	1,401.20	688.0	2,083.3	136.0	0.00	0.00	0.00
4,900.0	34.69	71.73	4,253.0	1,318.98	705.9	2,137.4	139.6	0.00	0.00	0.00
5,000.0	34.69	71.73	4,335.2	1,236.75	723.7	2,191.4	143.1	0.00	0.00	0.00
5,100.0	34.69	71.73	4,417.5	1,154.53	741.5	2,245.4	146.6	0.00	0.00	0.00
5,200.0	34.69	71.73	4,499.7	1,072.30	759.4	2,299.5	150.1	0.00	0.00	0.00
5,300.0	34.69	71.73	4,581.9	990.08	777.2	2,353.5	153.7	0.00	0.00	0.00
5,400.0	34.69	71.73	4,664.2	907.85	795.1	2,407.6	157.2	0.00	0.00	0.00
5,500.0	34.69	71.73	4,746.4	825.62	812.9	2,461.6	160.7	0.00	0.00	0.00
5,600.0	34.69	71.73	4,828.6	743.40	830.8	2,515.6	164.3	0.00	0.00	0.00
5,700.0	34.69	71.73	4,910.8	661.17	848.6	2,569.7	167.8	0.00	0.00	0.00
5,800.0	34.69	71.73	4,993.1	578.95	866.5	2,623.7	171.3	0.00	0.00	0.00
SUSSEX										
5,829.1	34.69	71.73	5,017.0	555.00	871.7	2,639.5	172.4	0.00	0.00	0.00
5,900.0	34.69	71.73	5,075.3	496.72	884.3	2,677.8	174.9	0.00	0.00	0.00
6,000.0	34.69	71.73	5,157.5	414.49	902.2	2,731.8	178.4	0.00	0.00	0.00
6,100.0	34.69	71.73	5,239.7	332.27	920.0	2,785.8	181.9	0.00	0.00	0.00
6,200.0	34.69	71.73	5,322.0	250.04	937.8	2,839.9	185.4	0.00	0.00	0.00
6,300.0	34.69	71.73	5,404.2	167.82	955.7	2,893.9	189.0	0.00	0.00	0.00
SHANNON										
6,319.2	34.69	71.73	5,420.0	152.00	959.1	2,904.3	189.7	0.00	0.00	0.00
6,400.0	34.69	71.73	5,486.4	85.59	973.5	2,948.0	192.5	0.00	0.00	0.00
6,500.0	34.69	71.73	5,568.6	3.36	991.4	3,002.0	196.0	0.00	0.00	0.00
6,600.0	34.69	71.73	5,650.9	-78.86	1,009.2	3,056.1	199.6	0.00	0.00	0.00
END OF TANGENT										
6,667.8	34.69	71.73	5,706.6	-134.61	1,021.3	3,092.7	202.0	0.00	0.00	0.00
6,700.0	34.04	71.73	5,733.2	-161.19	1,027.0	3,110.0	203.1	2.00	-2.00	0.00
6,800.0	32.04	71.73	5,817.0	-245.01	1,044.1	3,161.7	206.5	2.00	-2.00	0.00
6,900.0	30.04	71.73	5,902.7	-330.68	1,060.3	3,210.7	209.7	2.00	-2.00	0.00
7,000.0	28.04	71.73	5,990.1	-418.10	1,075.5	3,256.8	212.7	2.00	-2.00	0.00
7,100.0	26.04	71.73	6,079.2	-507.16	1,089.8	3,300.0	215.5	2.00	-2.00	0.00
7,200.0	24.04	71.73	6,169.8	-597.76	1,103.1	3,340.2	218.1	2.00	-2.00	0.00
7,300.0	22.04	71.73	6,261.8	-689.77	1,115.3	3,377.3	220.5	2.00	-2.00	0.00
7,400.0	20.04	71.73	6,355.1	-783.10	1,126.6	3,411.4	222.8	2.00	-2.00	0.00
7,500.0	18.04	71.73	6,449.6	-877.62	1,136.8	3,442.4	224.8	2.00	-2.00	0.00
7,600.0	16.04	71.73	6,545.2	-973.22	1,146.0	3,470.2	226.6	2.00	-2.00	0.00
7,700.0	14.04	71.73	6,641.8	-1,069.79	1,154.1	3,494.9	228.2	2.00	-2.00	0.00
7,800.0	12.04	71.73	6,739.2	-1,167.21	1,161.2	3,516.3	229.6	2.00	-2.00	0.00
7,900.0	10.04	71.73	6,837.3	-1,265.35	1,167.2	3,534.5	230.8	2.00	-2.00	0.00
8,000.0	8.04	71.73	6,936.1	-1,364.10	1,172.2	3,549.4	231.8	2.00	-2.00	0.00
8,100.0	6.04	71.73	7,035.3	-1,463.34	1,176.0	3,561.1	232.5	2.00	-2.00	0.00
8,200.0	4.04	71.73	7,134.9	-1,562.95	1,178.8	3,569.4	233.1	2.00	-2.00	0.00
8,300.0	2.04	71.73	7,234.8	-1,662.80	1,180.4	3,574.5	233.4	2.00	-2.00	0.00
8,400.0	0.04	71.73	7,334.8	-1,762.78	1,181.0	3,576.2	233.5	2.00	-2.00	0.00
EOD TO VERTICAL										
8,402.2	0.00	71.73	7,337.0	-1,764.98	1,181.0	3,576.2	233.5	2.00	-2.00	0.00
KOP (10°/100ft BUR)										
8,432.2	0.00	0.00	7,367.0	-1,794.98	1,181.0	3,576.2	233.5	0.00	0.00	0.00
8,500.0	6.78	180.02	7,434.6	-1,862.62	1,177.0	3,576.2	237.3	10.00	10.00	0.00
8,600.0	16.78	180.02	7,532.4	-1,960.39	1,156.6	3,576.2	256.2	10.00	10.00	0.00
SHARON SPRINGS										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 5
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 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
8,694.3	26.20	180.02	7,620.0	-2,048.00	1,122.1	3,576.2	288.2	10.00	10.00	0.00
8,700.0	26.78	180.02	7,625.1	-2,053.14	1,119.6	3,576.2	290.6	10.00	10.00	0.00
NIORARA										
8,728.2	29.60	180.02	7,650.0	-2,078.00	1,106.2	3,576.2	302.9	10.00	10.00	0.00
8,800.0	36.78	180.02	7,710.0	-2,138.04	1,067.0	3,576.2	339.4	10.00	10.00	0.00
NIO B										
8,851.7	41.94	180.02	7,750.0	-2,178.00	1,034.2	3,576.1	369.8	10.00	10.00	0.00
8,900.0	46.77	180.02	7,784.5	-2,212.52	1,000.4	3,576.1	401.1	10.00	10.00	0.00
9,000.0	56.77	180.02	7,846.3	-2,274.32	922.0	3,576.1	474.0	10.00	10.00	0.00
9,100.0	66.77	180.02	7,893.6	-2,321.56	834.0	3,576.1	555.6	10.00	10.00	0.00
FORT HAYS										
9,111.5	67.93	180.02	7,898.0	-2,326.00	823.3	3,576.1	565.5	10.00	10.00	0.00
9,200.0	76.77	180.02	7,924.8	-2,352.80	739.1	3,576.0	643.7	10.00	10.00	0.00
CODELL										
9,225.1	79.28	180.02	7,930.0	-2,358.00	714.6	3,576.0	666.4	10.00	10.00	0.00
9,300.0	86.77	180.02	7,939.1	-2,367.09	640.3	3,576.0	735.4	10.00	10.00	0.00
LANDING PNT (P4) - COX 5										
9,332.3	90.00	180.02	7,940.0	-2,368.00	608.0	3,576.0	765.4	9.99	9.99	0.00
9,400.0	90.00	180.02	7,940.0	-2,368.00	540.3	3,576.0	828.2	0.00	0.00	0.00
9,500.0	90.00	180.02	7,940.0	-2,368.00	440.3	3,575.9	921.0	0.00	0.00	0.00
9,600.0	90.00	180.02	7,940.0	-2,368.00	340.3	3,575.9	1,013.9	0.00	0.00	0.00
9,700.0	90.00	180.02	7,940.0	-2,368.00	240.3	3,575.9	1,106.7	0.00	0.00	0.00
9,800.0	90.00	180.02	7,940.0	-2,368.00	140.3	3,575.8	1,199.5	0.00	0.00	0.00
9,900.0	90.00	180.02	7,940.0	-2,368.00	40.3	3,575.8	1,292.3	0.00	0.00	0.00
10,000.0	90.00	180.02	7,940.0	-2,368.00	-59.7	3,575.8	1,385.1	0.00	0.00	0.00
10,100.0	90.00	180.02	7,940.0	-2,368.00	-159.7	3,575.7	1,477.9	0.00	0.00	0.00
10,200.0	90.00	180.02	7,940.0	-2,368.01	-259.7	3,575.7	1,570.7	0.00	0.00	0.00
10,300.0	90.00	180.02	7,940.0	-2,368.01	-359.7	3,575.7	1,663.6	0.00	0.00	0.00
10,400.0	90.00	180.02	7,940.0	-2,368.01	-459.7	3,575.6	1,756.4	0.00	0.00	0.00
10,500.0	90.00	180.02	7,940.0	-2,368.01	-559.7	3,575.6	1,849.2	0.00	0.00	0.00
10,600.0	90.00	180.02	7,940.0	-2,368.01	-659.7	3,575.5	1,942.0	0.00	0.00	0.00
10,700.0	90.00	180.02	7,940.0	-2,368.01	-759.7	3,575.5	2,034.8	0.00	0.00	0.00
10,800.0	90.00	180.02	7,940.0	-2,368.01	-859.7	3,575.5	2,127.6	0.00	0.00	0.00
10,900.0	90.00	180.02	7,940.0	-2,368.01	-959.7	3,575.4	2,220.4	0.00	0.00	0.00
11,000.0	90.00	180.02	7,940.0	-2,368.01	-1,059.7	3,575.4	2,313.3	0.00	0.00	0.00
11,100.0	90.00	180.02	7,940.0	-2,368.01	-1,159.7	3,575.4	2,406.1	0.00	0.00	0.00
11,200.0	90.00	180.02	7,940.0	-2,368.01	-1,259.7	3,575.3	2,498.9	0.00	0.00	0.00
11,300.0	90.00	180.02	7,940.0	-2,368.01	-1,359.7	3,575.3	2,591.7	0.00	0.00	0.00
11,400.0	90.00	180.02	7,940.0	-2,368.01	-1,459.7	3,575.2	2,684.5	0.00	0.00	0.00
11,500.0	90.00	180.02	7,940.0	-2,368.01	-1,559.7	3,575.2	2,777.3	0.00	0.00	0.00
11,600.0	90.00	180.02	7,940.0	-2,368.01	-1,659.7	3,575.2	2,870.2	0.00	0.00	0.00
11,700.0	90.00	180.02	7,940.0	-2,368.01	-1,759.7	3,575.1	2,963.0	0.00	0.00	0.00
11,800.0	90.00	180.02	7,940.0	-2,368.01	-1,859.7	3,575.1	3,055.8	0.00	0.00	0.00
11,900.0	90.00	180.02	7,940.0	-2,368.01	-1,959.7	3,575.0	3,148.6	0.00	0.00	0.00
12,000.0	90.00	180.02	7,940.0	-2,368.01	-2,059.7	3,575.0	3,241.4	0.00	0.00	0.00
12,100.0	90.00	180.02	7,940.0	-2,368.01	-2,159.7	3,575.0	3,334.2	0.00	0.00	0.00
12,200.0	90.00	180.02	7,940.0	-2,368.01	-2,259.7	3,574.9	3,427.0	0.00	0.00	0.00
12,300.0	90.00	180.02	7,940.0	-2,368.01	-2,359.7	3,574.9	3,519.9	0.00	0.00	0.00
12,400.0	90.00	180.02	7,940.0	-2,368.01	-2,459.7	3,574.8	3,612.7	0.00	0.00	0.00
12,500.0	90.00	180.02	7,940.0	-2,368.01	-2,559.7	3,574.8	3,705.5	0.00	0.00	0.00
12,600.0	90.00	180.02	7,940.0	-2,368.01	-2,659.7	3,574.8	3,798.3	0.00	0.00	0.00
12,700.0	90.00	180.02	7,940.0	-2,368.01	-2,759.7	3,574.7	3,891.1	0.00	0.00	0.00
12,800.0	90.00	180.02	7,940.0	-2,368.01	-2,859.7	3,574.7	3,983.9	0.00	0.00	0.00
12,900.0	90.00	180.02	7,940.0	-2,368.01	-2,959.7	3,574.6	4,076.7	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 5
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 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
13,000.0	90.00	180.02	7,940.0	-2,368.01	-3,059.7	3,574.6	4,169.5	0.00	0.00	0.00
13,100.0	90.00	180.02	7,940.0	-2,368.01	-3,159.7	3,574.6	4,262.4	0.00	0.00	0.00
13,200.0	90.00	180.02	7,940.0	-2,368.02	-3,259.7	3,574.5	4,355.2	0.00	0.00	0.00
13,300.0	90.00	180.02	7,940.0	-2,368.02	-3,359.7	3,574.5	4,448.0	0.00	0.00	0.00
13,400.0	90.00	180.02	7,940.0	-2,368.02	-3,459.7	3,574.4	4,540.8	0.00	0.00	0.00
13,500.0	90.00	180.02	7,940.0	-2,368.02	-3,559.7	3,574.4	4,633.6	0.00	0.00	0.00
13,600.0	90.00	180.02	7,940.0	-2,368.02	-3,659.7	3,574.3	4,726.4	0.00	0.00	0.00
13,700.0	90.00	180.02	7,940.0	-2,368.02	-3,759.7	3,574.3	4,819.2	0.00	0.00	0.00
13,800.0	90.00	180.02	7,940.0	-2,368.02	-3,859.7	3,574.3	4,912.1	0.00	0.00	0.00
13,900.0	90.00	180.02	7,940.0	-2,368.02	-3,959.7	3,574.2	5,004.9	0.00	0.00	0.00
14,000.0	90.00	180.02	7,940.0	-2,368.02	-4,059.7	3,574.2	5,097.7	0.00	0.00	0.00
14,100.0	90.00	180.02	7,940.0	-2,368.02	-4,159.7	3,574.1	5,190.5	0.00	0.00	0.00
14,200.0	90.00	180.02	7,940.0	-2,368.02	-4,259.7	3,574.1	5,283.3	0.00	0.00	0.00
14,300.0	90.00	180.03	7,940.0	-2,368.02	-4,359.7	3,574.0	5,376.1	0.00	0.00	0.00
14,400.0	90.00	180.03	7,940.0	-2,368.02	-4,459.7	3,574.0	5,468.9	0.00	0.00	0.00
14,500.0	90.00	180.03	7,940.0	-2,368.02	-4,559.7	3,574.0	5,561.7	0.00	0.00	0.00
14,600.0	90.00	180.03	7,940.0	-2,368.02	-4,659.7	3,573.9	5,654.6	0.00	0.00	0.00
14,700.0	90.00	180.03	7,940.0	-2,368.02	-4,759.7	3,573.9	5,747.4	0.00	0.00	0.00
14,800.0	90.00	180.03	7,940.0	-2,368.02	-4,859.7	3,573.8	5,840.2	0.00	0.00	0.00
14,900.0	90.00	180.03	7,940.0	-2,368.02	-4,959.7	3,573.8	5,933.0	0.00	0.00	0.00
15,000.0	90.00	180.03	7,940.0	-2,368.02	-5,059.7	3,573.7	6,025.8	0.00	0.00	0.00
15,100.0	90.00	180.03	7,940.0	-2,368.01	-5,159.7	3,573.7	6,118.6	0.00	0.00	0.00
15,200.0	90.00	180.03	7,940.0	-2,368.01	-5,259.7	3,573.6	6,211.4	0.00	0.00	0.00
15,300.0	90.00	180.03	7,940.0	-2,368.01	-5,359.7	3,573.6	6,304.2	0.00	0.00	0.00
15,400.0	90.00	180.03	7,940.0	-2,368.01	-5,459.7	3,573.6	6,397.1	0.00	0.00	0.00
15,500.0	90.00	180.03	7,940.0	-2,368.01	-5,559.7	3,573.5	6,489.9	0.00	0.00	0.00
15,600.0	90.00	180.03	7,940.0	-2,368.01	-5,659.7	3,573.5	6,582.7	0.00	0.00	0.00
15,700.0	90.00	180.03	7,940.0	-2,368.01	-5,759.7	3,573.4	6,675.5	0.00	0.00	0.00
15,800.0	90.00	180.03	7,940.0	-2,368.01	-5,859.7	3,573.4	6,768.3	0.00	0.00	0.00
15,900.0	90.00	180.03	7,940.0	-2,368.01	-5,959.7	3,573.3	6,861.1	0.00	0.00	0.00
16,000.0	90.00	180.03	7,940.0	-2,368.01	-6,059.7	3,573.3	6,953.9	0.00	0.00	0.00
16,100.0	90.00	180.03	7,940.0	-2,368.01	-6,159.7	3,573.2	7,046.7	0.00	0.00	0.00
16,200.0	90.00	180.03	7,940.0	-2,368.01	-6,259.7	3,573.2	7,139.5	0.00	0.00	0.00
16,300.0	90.00	180.03	7,940.0	-2,368.01	-6,359.7	3,573.1	7,232.4	0.00	0.00	0.00
16,400.0	90.00	180.03	7,940.0	-2,368.01	-6,459.7	3,573.1	7,325.2	0.00	0.00	0.00
16,500.0	90.00	180.03	7,940.0	-2,368.01	-6,559.7	3,573.0	7,418.0	0.00	0.00	0.00
16,600.0	90.00	180.03	7,940.0	-2,368.01	-6,659.7	3,573.0	7,510.8	0.00	0.00	0.00
16,700.0	90.00	180.03	7,940.0	-2,368.01	-6,759.7	3,572.9	7,603.6	0.00	0.00	0.00
16,800.0	90.00	180.03	7,940.0	-2,368.01	-6,859.7	3,572.9	7,696.4	0.00	0.00	0.00
16,900.0	90.00	180.03	7,940.0	-2,368.01	-6,959.7	3,572.8	7,789.2	0.00	0.00	0.00
17,000.0	90.00	180.03	7,940.0	-2,368.01	-7,059.7	3,572.8	7,882.0	0.00	0.00	0.00
17,100.0	90.00	180.03	7,940.0	-2,368.01	-7,159.7	3,572.7	7,974.8	0.00	0.00	0.00
17,200.0	90.00	180.03	7,940.0	-2,368.01	-7,259.7	3,572.7	8,067.7	0.00	0.00	0.00
17,300.0	90.00	180.03	7,940.0	-2,368.01	-7,359.7	3,572.7	8,160.5	0.00	0.00	0.00
17,400.0	90.00	180.03	7,940.0	-2,368.01	-7,459.7	3,572.6	8,253.3	0.00	0.00	0.00
17,500.0	90.00	180.03	7,940.0	-2,368.01	-7,559.7	3,572.6	8,346.1	0.00	0.00	0.00
17,600.0	90.00	180.03	7,940.0	-2,368.01	-7,659.7	3,572.5	8,438.9	0.00	0.00	0.00
17,700.0	90.00	180.03	7,940.0	-2,368.01	-7,759.7	3,572.5	8,531.7	0.00	0.00	0.00
17,800.0	90.00	180.03	7,940.0	-2,368.01	-7,859.7	3,572.4	8,624.5	0.00	0.00	0.00
17,900.0	90.00	180.03	7,940.0	-2,368.01	-7,959.7	3,572.4	8,717.3	0.00	0.00	0.00
18,000.0	90.00	180.03	7,940.0	-2,368.01	-8,059.7	3,572.3	8,810.1	0.00	0.00	0.00
18,100.0	90.00	180.03	7,940.0	-2,368.00	-8,159.7	3,572.3	8,902.9	0.00	0.00	0.00
18,200.0	90.00	180.03	7,940.0	-2,368.00	-8,259.7	3,572.2	8,995.8	0.00	0.00	0.00
18,300.0	90.00	180.03	7,940.0	-2,368.00	-8,359.7	3,572.2	9,088.6	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 5
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 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
18,400.0	90.00	180.03	7,940.0	-2,368.00	-8,459.7	3,572.1	9,181.4	0.00	0.00	0.00
18,500.0	90.00	180.03	7,940.0	-2,368.00	-8,559.7	3,572.1	9,274.2	0.00	0.00	0.00
18,600.0	90.00	180.03	7,940.0	-2,368.00	-8,659.7	3,572.0	9,367.0	0.00	0.00	0.00
18,700.0	90.00	180.03	7,940.0	-2,368.00	-8,759.7	3,571.9	9,459.8	0.00	0.00	0.00
18,800.0	90.00	180.03	7,940.0	-2,368.00	-8,859.7	3,571.9	9,552.6	0.00	0.00	0.00
BHL (P4) - COX 5										
18,856.9	90.00	180.03	7,940.0	-2,368.00	-8,916.6	3,571.9	9,605.4	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,585.3	3,172.0	PARKMAN		0.00	
5,829.1	5,017.0	SUSSEX		0.00	
6,319.2	5,420.0	SHANNON		0.00	
8,694.3	7,620.0	SHARON SPRINGS		0.00	
8,728.2	7,650.0	NIOBRARA		0.00	
8,851.7	7,750.0	NIO B		0.00	
9,111.5	7,898.0	FORT HAYS		0.00	
9,225.1	7,930.0	CODELL		0.00	

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.0	100.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,678.7	1,600.0	133.0	402.7	9 5/8" SURFACE CSG
1,743.7	1,655.4	143.7	435.0	START NUDGE #2 (2.5°/100ft BUR)
1,899.4	1,785.8	170.4	515.8	EOB TO 34.69° INC
6,667.8	5,706.6	1,021.3	3,092.7	END OF TANGENT
8,402.2	7,337.0	1,181.0	3,576.2	EOD TO VERTICAL
8,432.2	7,367.0	1,181.0	3,576.2	KOP (10°/100ft BUR)
9,332.3	7,940.0	608.0	3,576.0	LANDING PNT (P4) - COX 5
18,856.9	7,940.0	-8,916.6	3,571.9	BHL (P4) - COX 5