

PDC ENERGY

**WELD COUNTY, COLORADO
SE SE SEC.32 T4N R66W 6th P.M.
TARIN FEDERAL 32W-234
JOB #2015-138-135**

12 November, 2015

Survey: FINAL SURVEYS





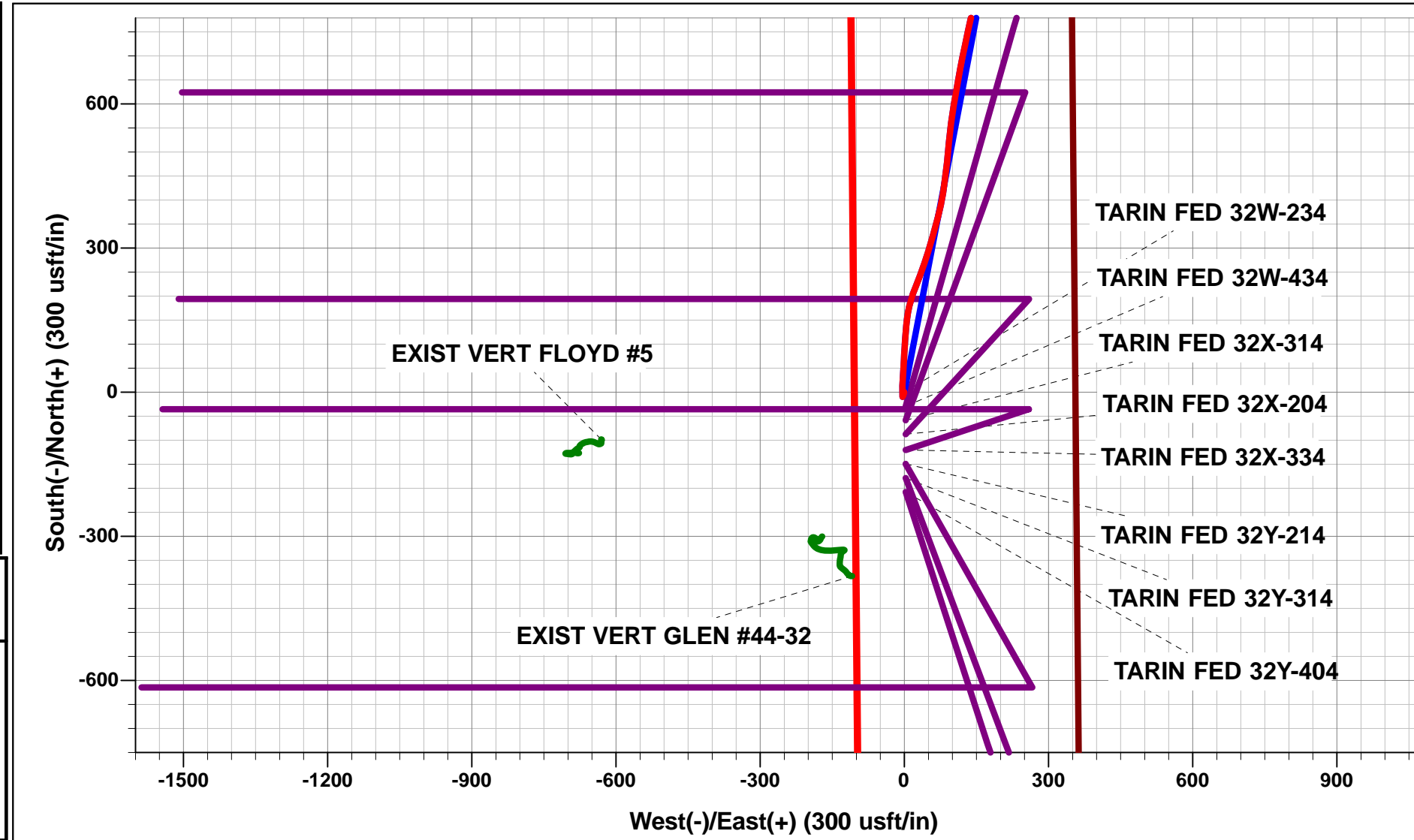
Project: WELD COUNTY, COLORADO
 Site: SE SE SEC.32 T4N R66W 6th P.M.
 Well: TARIN FEDERAL 32W-234
 Wellbore: JOB #2015-138-135
 Design: FINAL SURVEYS

ANNOTATIONS

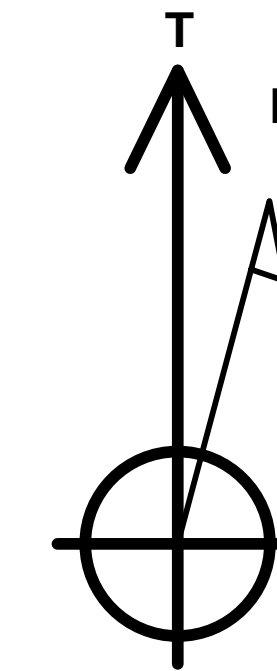
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Dep	Annotation
944.9	945.0	0.64	221.15	-9.3	-3.3	1.6	10.0	SURFACE CASING
6285.8	6466.0	0.70	42.00	1286.0	248.9	-16.1	1340.0	KOP
7085.9	7705.0	88.94	267.60	1297.9	-521.4	744.0	2118.2	ICP
7053.8	14158.0	91.10	265.40	1256.2	-6971.0	7083.3	8570.5	LAST SURVEY - NOV 11, 2015
7051.4	14283.0	91.10	265.40	1246.2	-7095.6	7204.1	8695.5	EXTRAPOLATION TO TD

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
7" ICP *NEW* - TARIN FEDERAL 32W-234	7086.0	1283.4	-473.0	40.267333	-104.794875
BHL - TARIN FEDERAL 32W-234	7056.0	1283.4	-7096.7	40.267330	-104.818610
KOP - TARIN FEDERAL 32W-234	6369.9	1283.4	246.3	40.267333	-104.792297

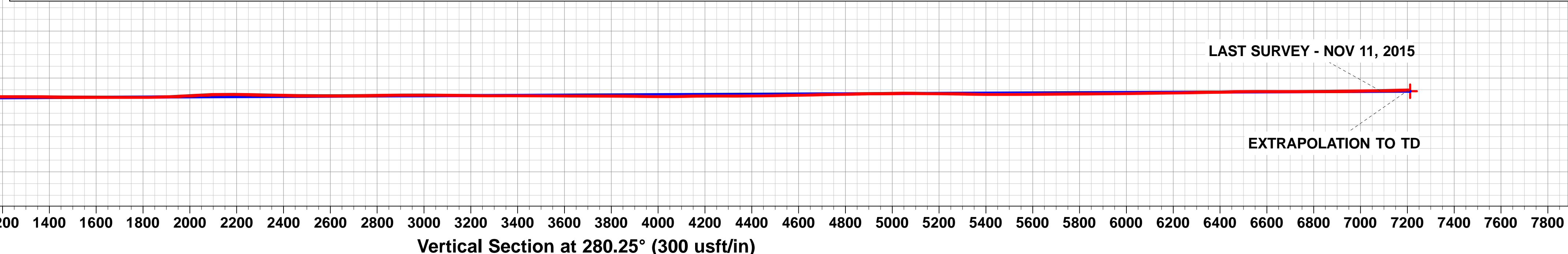
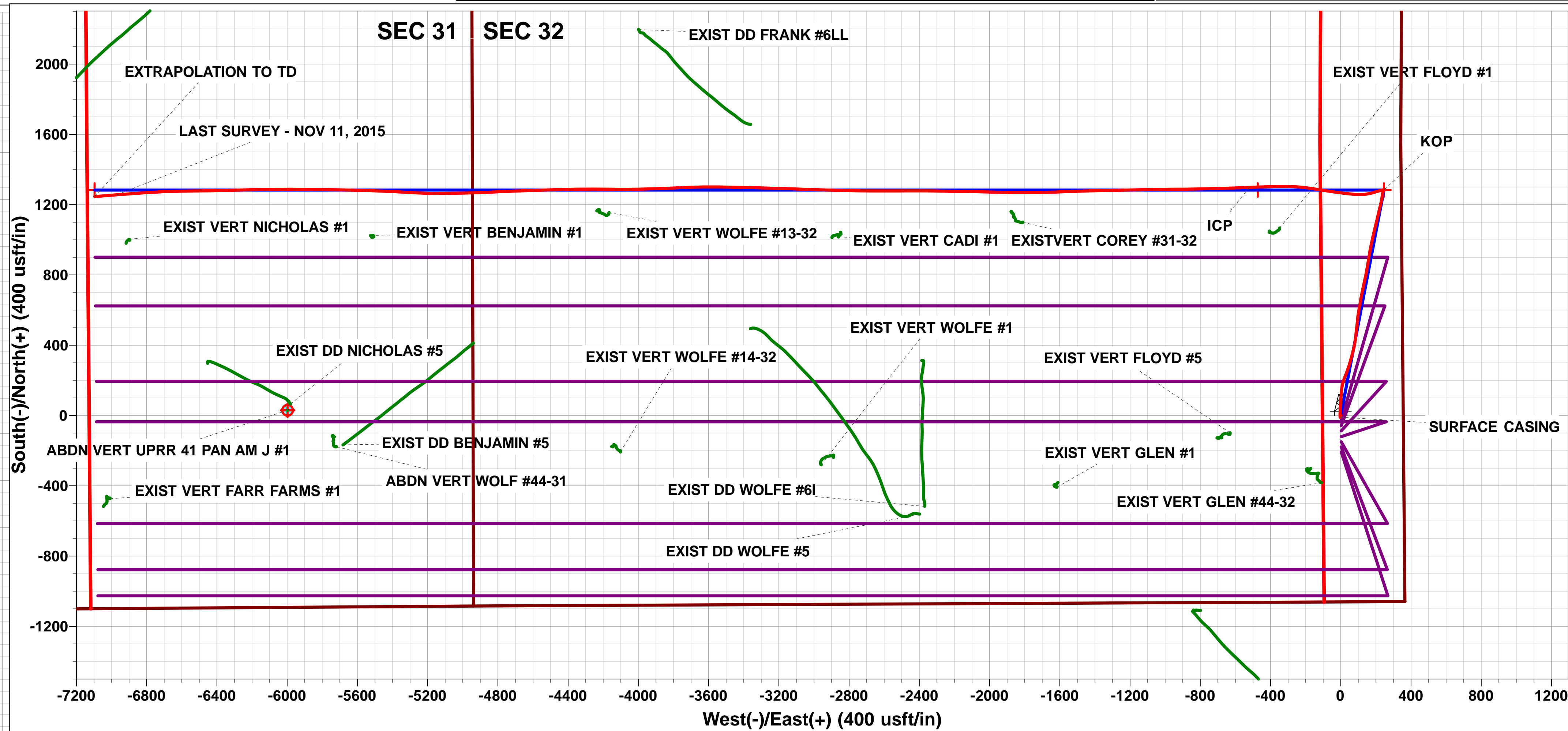
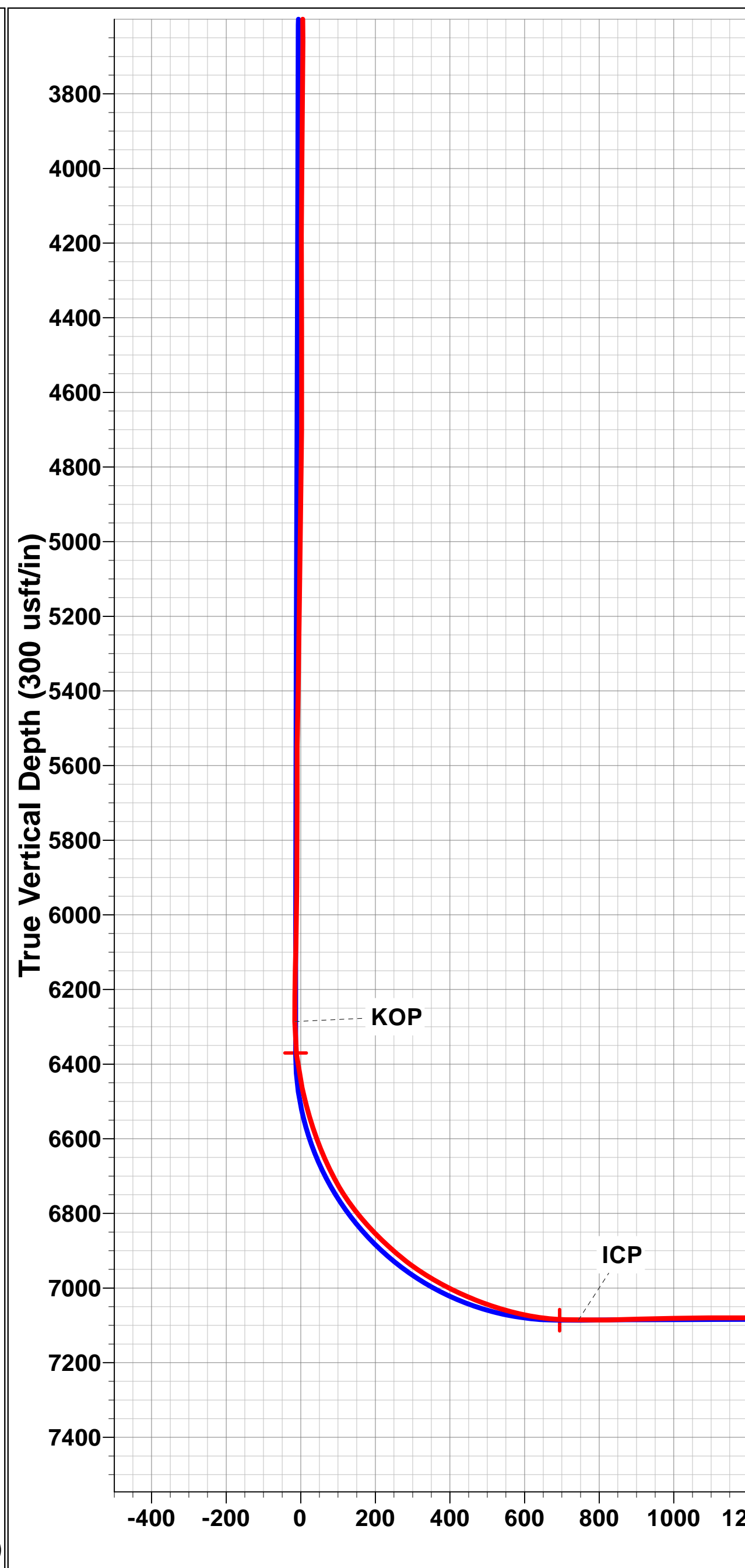
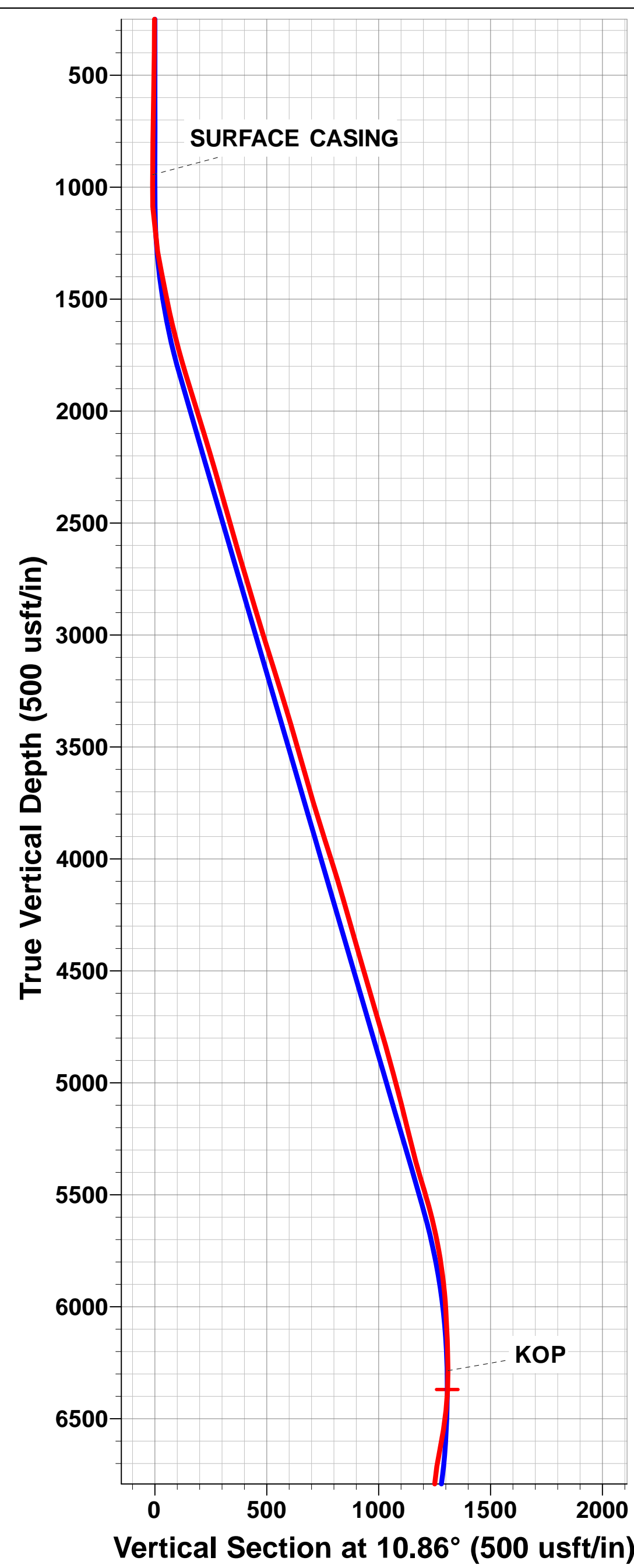


AS DRILLED LOCAL COORDINATES:
 SHL: 1063ft FSL & 355ft FEL of Sec 32
 7" ICP: 2460.5ft FSL & 865.4ft FEL of Sec 32
 BHL: 2347.8ft FSL & 2050.9ft FEL of Sec 31



Azimuths to True North
 Magnetic North: 8.40°

Magnetic Field
 Strength: 52517.2snT
 Dip Angle: 66.78°
 Date: 20/09/2015
 Model: IGRF2015



Survey Report



Company: PDC ENERGY	Local Co-ordinate Reference: Well TARIN FEDERAL 32W-234
Project: WELD COUNTY, COLORADO	TVD Reference: KB @ 4787.0usft (ENS 135)
Site: SE SE SEC.32 T4N R66W 6th P.M.	MD Reference: KB @ 4787.0usft (ENS 135)
Well: TARIN FEDERAL 32W-234	North Reference: True
Wellbore: JOB #2015-138-135	Survey Calculation Method: Minimum Curvature
Design: FINAL SURVEYS	Database: EDM 5000.1 Single User Db

Project WELD COUNTY, COLORADO			
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 SE SE SEC.32 T4N R66W 6th P.M.			
Site Position:	Northing: 1,339,526.01 usft	Latitude: 40.263240	
From: Lat/Long	Easting: 3,197,254.51 usft	Longitude: -104.793170	
Position Uncertainty: 0.0 usft	Slot Radius: 1.10000ft	Grid Convergence: 0.46 °	

Well TARIN FEDERAL 32W-234			
Well Position	+N-S 0.0 usft	Northing: 1,339,733.61 usft	Latitude: 40.263810
	+E-W 0.0 usft	Easting: 3,197,250.06 usft	Longitude: -104.793180
Position Uncertainty	0.0 usft	Wellhead Elevation: usft	Ground Level: 4,774.0 usft

Wellbore JOB #2015-138-135					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	20/09/2015	8.40	66.78	52,517

Design FINAL SURVEYS				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.0	0.0	0.0	280.25

Survey Program		Date 12/11/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
294.0	14,283.0	FINAL SURVEYS (JOB #2015-138-135)	MWD	MWD - Standard

Survey											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (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	4,787.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
294.0	0.70	195.60	294.0	4,493.0	-1.7	-0.5	0.2	0.24	0.24	0.00	0.00
574.0	0.70	199.40	574.0	4,213.0	-5.0	-1.5	0.6	0.02	0.00	1.36	1.36
854.0	0.80	202.60	853.9	3,933.1	-8.4	-2.8	1.3	0.04	0.04	1.14	1.14
900.0	0.60	202.90	899.9	3,887.1	-8.9	-3.0	1.4	0.43	-0.43	0.65	0.65
SURFACE CASING											
945.0	0.64	221.15	944.9	3,842.1	-9.3	-3.3	1.6	0.45	0.10	40.56	40.56
1,011.0	0.80	241.30	1,010.9	3,776.1	-9.8	-4.0	2.1	0.45	0.24	30.53	30.53
1,289.0	10.00	3.70	1,287.6	3,499.4	13.4	-4.1	6.4	3.76	3.31	44.03	44.03
1,568.0	12.50	3.10	1,561.2	3,225.8	67.7	-0.9	12.9	0.90	0.90	-0.22	-0.22
1,848.0	16.90	4.50	1,832.0	2,955.0	138.6	3.9	20.8	1.58	1.57	0.50	0.50
2,128.0	17.70	22.10	2,099.5	2,687.5	218.6	23.2	16.1	1.88	0.29	6.29	6.29
2,400.0	15.60	17.10	2,360.1	2,426.9	291.9	49.5	3.3	0.93	-0.77	-1.84	-1.84

Survey Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well TARIN FEDERAL 32W-234
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB @ 4787.0usft (ENS 135)
Site:	SE SE SEC.32 T4N R66W 6th P.M.	MD Reference:	KB @ 4787.0usft (ENS 135)
Well:	TARIN FEDERAL 32W-234	North Reference:	True
Wellbore:	JOB #2015-138-135	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,670.0	16.50	14.40	2,619.6	2,167.4	363.8	69.7	-3.8	0.43	0.33	-1.00
2,942.0	16.70	7.20	2,880.2	1,906.8	440.0	84.2	-4.5	0.76	0.07	-2.65
3,214.0	17.70	5.20	3,140.1	1,646.9	519.9	92.8	1.2	0.43	0.37	-0.74
3,484.0	16.50	9.40	3,398.1	1,388.9	598.6	102.8	5.4	0.64	-0.44	1.56
3,757.0	15.70	10.80	3,660.4	1,126.6	673.2	116.1	5.6	0.33	-0.29	0.51
4,027.0	18.10	12.60	3,918.8	868.2	750.0	132.1	3.5	0.91	0.89	0.67
4,298.0	16.10	10.80	4,177.8	609.2	828.0	148.3	1.4	0.76	-0.74	-0.66
4,569.0	15.80	8.40	4,438.3	348.7	901.4	160.7	2.3	0.27	-0.11	-0.89
4,839.0	16.70	12.00	4,697.6	89.4	975.7	174.2	2.3	0.50	0.33	1.33
5,111.0	15.30	13.50	4,959.0	-172.0	1,048.8	190.7	-1.0	0.54	-0.51	0.55
5,381.0	13.40	13.00	5,220.6	-433.6	1,114.0	206.0	-4.5	0.71	-0.70	-0.19
5,652.0	17.20	13.90	5,481.9	-694.9	1,183.5	222.7	-8.5	1.40	1.40	0.33
5,923.0	10.10	7.90	5,745.1	-958.1	1,246.0	235.6	-10.1	2.67	-2.62	-2.21
6,195.0	3.70	30.50	6,015.0	-1,228.0	1,277.2	243.4	-12.2	2.51	-2.35	8.31
KOP										
6,466.0	0.70	42.00	6,285.8	-1,498.8	1,286.0	248.9	-16.1	1.11	-1.11	4.24
6,554.0	6.90	259.60	6,373.6	-1,586.6	1,285.4	244.1	-11.4	8.48	7.05	-161.82
6,645.0	13.90	254.10	6,463.1	-1,676.1	1,281.4	228.2	3.5	7.76	7.69	-6.04
6,735.0	18.60	253.40	6,549.4	-1,762.4	1,274.4	204.0	26.1	5.23	5.22	-0.78
6,825.0	24.80	253.60	6,633.0	-1,846.0	1,264.9	172.1	55.8	6.89	6.89	0.22
6,915.0	29.20	265.40	6,713.3	-1,926.3	1,257.8	132.1	93.9	7.68	4.89	13.11
7,005.0	37.80	274.40	6,788.3	-2,001.3	1,258.2	82.5	142.7	11.01	9.56	10.00
7,095.0	44.60	277.20	6,856.0	-2,069.0	1,264.3	23.6	201.7	7.83	7.56	3.11
7,185.0	50.50	277.60	6,916.7	-2,129.7	1,272.8	-42.2	268.0	6.56	6.56	0.44
7,275.0	58.80	279.90	6,968.7	-2,181.7	1,284.1	-114.7	341.3	9.45	9.22	2.56
7,366.0	64.90	277.30	7,011.6	-2,224.6	1,296.0	-194.0	421.5	7.16	6.70	-2.86
7,456.0	71.10	271.80	7,045.4	-2,258.4	1,302.5	-277.1	504.4	8.92	6.89	-6.11
7,546.0	77.40	269.60	7,069.8	-2,282.8	1,303.6	-363.6	589.8	7.38	7.00	-2.44
7,648.0	86.80	267.00	7,083.8	-2,296.8	1,300.5	-464.5	688.5	9.55	9.22	-2.55
ICP										
7,705.0	88.94	267.60	7,085.9	-2,298.9	1,297.9	-521.4	744.0	3.90	3.76	1.05
7,781.0	91.80	268.40	7,085.4	-2,298.4	1,295.2	-597.3	818.3	3.90	3.76	1.05
7,874.0	91.10	268.40	7,083.1	-2,296.1	1,292.6	-690.3	909.3	0.75	-0.75	0.00
7,967.0	91.50	268.00	7,080.9	-2,293.9	1,289.7	-783.2	1,000.2	0.61	0.43	-0.43
8,061.0	89.90	270.00	7,079.8	-2,292.8	1,288.1	-877.2	1,092.4	2.72	-1.70	2.13
8,154.0	90.10	269.60	7,079.8	-2,292.8	1,287.7	-970.2	1,183.8	0.48	0.22	-0.43
8,248.0	89.80	268.90	7,079.9	-2,292.9	1,286.5	-1,064.2	1,276.1	0.81	-0.32	-0.74
8,341.0	89.80	268.70	7,080.2	-2,293.2	1,284.6	-1,157.1	1,367.3	0.22	0.00	-0.22
8,434.0	89.30	269.00	7,080.9	-2,293.9	1,282.7	-1,250.1	1,458.4	0.63	-0.54	0.32
8,526.0	90.10	268.60	7,081.4	-2,294.4	1,280.8	-1,342.1	1,548.6	0.97	0.87	-0.43
8,619.0	89.70	268.50	7,081.6	-2,294.6	1,278.4	-1,435.1	1,639.7	0.44	-0.43	-0.11
8,712.0	89.90	267.80	7,081.9	-2,294.9	1,275.4	-1,528.0	1,730.6	0.78	0.22	-0.75
8,805.0	90.20	267.70	7,081.8	-2,294.8	1,271.8	-1,620.9	1,821.4	0.34	0.32	-0.11
8,898.0	92.40	270.00	7,079.7	-2,292.7	1,269.9	-1,713.9	1,912.5	3.42	2.37	2.47
8,991.0	93.40	269.40	7,075.0	-2,288.0	1,269.4	-1,806.8	2,003.8	1.25	1.08	-0.65
9,084.0	92.00	271.10	7,070.6	-2,283.6	1,269.8	-1,899.7	2,095.3	2.37	-1.51	1.83
9,178.0	89.00	271.50	7,069.8	-2,282.8	1,271.9	-1,993.6	2,188.1	3.22	-3.19	0.43
9,271.0	88.80	271.00	7,071.6	-2,284.6	1,274.0	-2,086.6	2,280.0	0.58	-0.22	-0.54
9,364.0	89.00	270.80	7,073.4	-2,286.4	1,275.4	-2,179.6	2,371.7	0.30	0.22	-0.22
9,458.0	89.40	271.60	7,074.7	-2,287.7	1,277.4	-2,273.5	2,464.6	0.95	0.43	0.85
9,551.0	89.90	270.10	7,075.3	-2,288.3	1,278.8	-2,366.5	2,556.3	1.70	0.54	-1.61
9,641.0	90.00	269.90	7,075.3	-2,288.3	1,278.8	-2,456.5	2,644.9	0.25	0.11	-0.22
9,732.0	90.80	269.40	7,074.7	-2,287.7	1,278.2	-2,547.5	2,734.3	1.04	0.88	-0.55

Survey Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well TARIN FEDERAL 32W-234
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB @ 4787.0usft (ENS 135)
Site:	SE SE SEC.32 T4N R66W 6th P.M.	MD Reference:	KB @ 4787.0usft (ENS 135)
Well:	TARIN FEDERAL 32W-234	North Reference:	True
Wellbore:	JOB #2015-138-135	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,822.0	90.20	270.50	7,073.9	-2,286.9	1,278.1	-2,637.5	2,822.8	1.39	-0.67	1.22
9,913.0	91.10	270.10	7,072.9	-2,285.9	1,278.6	-2,728.5	2,912.5	1.08	0.99	-0.44
10,003.0	89.30	271.80	7,072.6	-2,285.6	1,280.1	-2,818.5	3,001.3	2.75	-2.00	1.89
10,093.0	89.30	271.80	7,073.7	-2,286.7	1,282.9	-2,908.4	3,090.3	0.00	0.00	0.00
10,184.0	89.60	271.90	7,074.5	-2,287.5	1,285.9	-2,999.4	3,180.3	0.35	0.33	0.11
10,274.0	89.90	272.00	7,074.9	-2,287.9	1,288.9	-3,089.3	3,269.4	0.35	0.33	0.11
10,365.0	90.20	272.00	7,074.9	-2,287.9	1,292.1	-3,180.3	3,359.4	0.33	0.33	0.00
10,456.0	89.60	271.30	7,075.0	-2,288.0	1,294.7	-3,271.2	3,449.4	1.01	-0.66	-0.77
10,546.0	89.70	271.30	7,075.6	-2,288.6	1,296.8	-3,361.2	3,538.3	0.11	0.11	0.00
10,636.0	89.60	271.30	7,076.1	-2,289.1	1,298.8	-3,451.2	3,627.2	0.11	-0.11	0.00
10,727.0	89.90	271.40	7,076.5	-2,289.5	1,301.0	-3,542.1	3,717.1	0.35	0.33	0.11
10,817.0	89.70	268.60	7,076.8	-2,289.8	1,301.0	-3,632.1	3,805.7	3.12	-0.22	-3.11
10,907.0	89.40	267.70	7,077.5	-2,290.5	1,298.1	-3,722.1	3,893.7	1.05	-0.33	-1.00
10,998.0	89.40	267.20	7,078.5	-2,291.5	1,294.0	-3,813.0	3,982.4	0.55	0.00	-0.55
11,089.0	90.70	268.40	7,078.4	-2,291.4	1,290.5	-3,903.9	4,071.3	1.94	1.43	1.32
11,180.0	91.20	268.50	7,076.9	-2,289.9	1,288.1	-3,994.9	4,160.3	0.56	0.55	0.11
11,270.0	89.50	270.70	7,076.3	-2,289.3	1,287.4	-4,084.9	4,248.8	3.09	-1.89	2.44
11,360.0	90.20	270.40	7,076.6	-2,289.6	1,288.3	-4,174.8	4,337.5	0.85	0.78	-0.33
11,450.0	90.90	270.10	7,075.7	-2,288.7	1,288.7	-4,264.8	4,426.1	0.85	0.78	-0.33
11,540.0	90.80	269.20	7,074.4	-2,287.4	1,288.1	-4,354.8	4,514.6	1.01	-0.11	-1.00
11,630.0	91.10	268.40	7,072.9	-2,285.9	1,286.2	-4,444.8	4,602.7	0.95	0.33	-0.89
11,721.0	91.30	267.90	7,071.0	-2,284.0	1,283.3	-4,535.7	4,691.7	0.59	0.22	-0.55
11,811.0	91.00	268.00	7,069.2	-2,282.2	1,280.1	-4,625.7	4,779.6	0.35	-0.33	0.11
11,901.0	90.90	267.90	7,067.7	-2,280.7	1,276.9	-4,715.6	4,867.5	0.16	-0.11	-0.11
11,992.0	91.20	267.40	7,066.0	-2,279.0	1,273.1	-4,806.5	4,956.3	0.64	0.33	-0.55
12,082.0	90.20	267.50	7,064.9	-2,277.9	1,269.1	-4,896.4	5,044.1	1.12	-1.11	0.11
12,172.0	88.90	268.80	7,065.6	-2,278.6	1,266.2	-4,986.3	5,132.1	2.04	-1.44	1.44
12,262.0	89.60	269.50	7,066.8	-2,279.8	1,264.9	-5,076.3	5,220.4	1.10	0.78	0.78
12,353.0	88.80	270.10	7,068.1	-2,281.1	1,264.6	-5,167.3	5,309.9	1.10	-0.88	0.66
12,443.0	89.60	273.20	7,069.3	-2,282.3	1,267.2	-5,257.3	5,398.8	3.56	0.89	3.44
12,534.0	90.20	272.80	7,069.5	-2,282.5	1,271.9	-5,348.1	5,489.1	0.79	0.66	-0.44
12,624.0	90.50	272.40	7,068.9	-2,281.9	1,276.0	-5,438.0	5,578.3	0.56	0.33	-0.44
12,714.0	90.20	272.30	7,068.4	-2,281.4	1,279.7	-5,528.0	5,667.5	0.35	-0.33	-0.11
12,804.0	90.60	271.30	7,067.8	-2,280.8	1,282.5	-5,617.9	5,756.5	1.20	0.44	-1.11
12,894.0	90.10	271.40	7,067.2	-2,280.2	1,284.7	-5,707.9	5,845.4	0.57	-0.56	0.11
12,985.0	90.70	270.30	7,066.6	-2,279.6	1,286.0	-5,798.9	5,935.2	1.38	0.66	-1.21
13,075.0	90.60	270.80	7,065.6	-2,278.6	1,286.9	-5,888.9	6,023.9	0.57	-0.11	0.56
13,165.0	90.90	270.40	7,064.4	-2,277.4	1,287.8	-5,978.8	6,112.6	0.56	0.33	-0.44
13,256.0	90.70	269.30	7,063.1	-2,276.1	1,287.6	-6,069.8	6,202.1	1.23	-0.22	-1.21
13,346.0	90.90	268.90	7,061.8	-2,274.8	1,286.2	-6,159.8	6,290.4	0.50	0.22	-0.44
13,437.0	91.00	268.30	7,060.3	-2,273.3	1,283.9	-6,250.8	6,379.5	0.67	0.11	-0.66
13,527.0	91.50	268.40	7,058.4	-2,271.4	1,281.3	-6,340.7	6,467.5	0.57	0.56	0.11
13,617.0	89.40	269.10	7,057.7	-2,270.7	1,279.4	-6,430.7	6,555.7	2.46	-2.33	0.78
13,708.0	90.10	269.40	7,058.1	-2,271.1	1,278.2	-6,521.7	6,645.0	0.84	0.77	0.33
13,798.0	90.10	268.50	7,057.9	-2,270.9	1,276.5	-6,611.7	6,733.3	1.00	0.00	-1.00
13,888.0	90.80	267.80	7,057.2	-2,270.2	1,273.6	-6,701.6	6,821.3	1.10	0.78	-0.78
13,977.0	90.60	266.50	7,056.1	-2,269.1	1,269.2	-6,790.5	6,908.0	1.48	-0.22	-1.46
14,067.0	90.60	265.80	7,055.2	-2,268.2	1,263.2	-6,880.3	6,995.3	0.78	0.00	-0.78
LAST SURVEY - NOV 11, 2015										
14,158.0	91.10	265.40	7,053.8	-2,266.8	1,256.2	-6,971.0	7,083.3	0.70	0.55	-0.44
EXTRAPOLATION TO TD										
14,283.0	91.10	265.40	7,051.4	-2,264.4	1,246.2	-7,095.6	7,204.1	0.00	0.00	0.00

Survey Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well TARIN FEDERAL 32W-234
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB @ 4787.0usft (ENS 135)
Site:	SE SE SEC.32 T4N R66W 6th P.M.	MD Reference:	KB @ 4787.0usft (ENS 135)
Well:	TARIN FEDERAL 32W-234	North Reference:	True
Wellbore:	JOB #2015-138-135	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
ABDN VERT UPRR 4 - survey misses target center by 1550.8usft at 13174.2usft MD (7064.2 TVD, 1287.9 N, -5988.1 E) - Circle (radius 30.0)	0.00	0.00	7,971.0	29.9	-5,997.5	1,339,715.69	3,191,252.81	40.263890	-104.814670
7" ICP *NEW* - TARI - survey misses target center by 16.8usft at 7657.4usft MD (7084.3 TVD, 1300.1 N, -473.8 E) - Point	0.00	0.00	7,086.0	1,283.4	-473.0	1,341,013.15	3,196,766.87	40.267333	-104.794875
KOP - TARIN FEDER - survey misses target center by 2.8usft at 6550.2usft MD (6369.8 TVD, 1285.5 N, 244.5 E) - Point	0.00	0.00	6,369.9	1,283.4	246.3	1,341,018.89	3,197,486.11	40.267333	-104.792297
EXIST VERT GREEN - survey misses target center by 2960.2usft at 12841.7usft MD (7067.4 TVD, 1283.4 N, -5655.6 E) - Circle (radius 30.0)	0.00	0.00	7,461.0	-1,649.6	-5,727.1	1,338,038.47	3,191,536.50	40.259280	-104.813700
BHL - TARIN FEDER - survey misses target center by 37.5usft at 14281.0usft MD (7051.5 TVD, 1246.3 N, -7093.6 E) - Point	0.00	0.00	7,056.0	1,283.4	-7,096.7	1,340,960.33	3,190,143.68	40.267330	-104.818610
EXIST VERT KERN L - survey misses target center by 3088.4usft at 7258.8usft MD (6960.1 TVD, 1281.7 N, -101.1 E) - Circle (radius 30.0)	0.00	0.00	7,406.0	-1,770.5	-254.0	1,337,961.22	3,197,010.21	40.258950	-104.794090
EXIST VERT GREEN - survey misses target center by 2944.2usft at 14260.0usft MD (7051.9 TVD, 1248.0 N, -7072.6 E) - Circle (radius 30.0)	0.00	0.00	7,451.0	-1,660.3	-6,846.3	1,338,018.90	3,190,417.47	40.259250	-104.817710
EXIST VERT KERN L - survey misses target center by 2959.8usft at 8898.0usft MD (7079.7 TVD, 1269.9 N, -1713.9 E) - Circle (radius 30.0)	0.00	0.00	7,901.0	-1,573.7	-1,716.5	1,338,146.33	3,195,546.27	40.259490	-104.799330

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
945.0	944.9	-9.3	-3.3	SURFACE CASING
6,466.0	6,285.8	1,286.0	248.9	KOP
7,705.0	7,085.9	1,297.9	-521.4	ICP
14,158.0	7,053.8	1,256.2	-6,971.0	LAST SURVEY - NOV 11, 2015
14,283.0	7,051.4	1,246.2	-7,095.6	EXTRAPOLATION TO TD

Checked By: _____	Approved By: _____	Date: _____
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