



Project: WELD COUNTY, COLORADO
Site: SW NW SEC. 10 T5N R64W 6th P.M.
Well: WACKER 10F-232
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

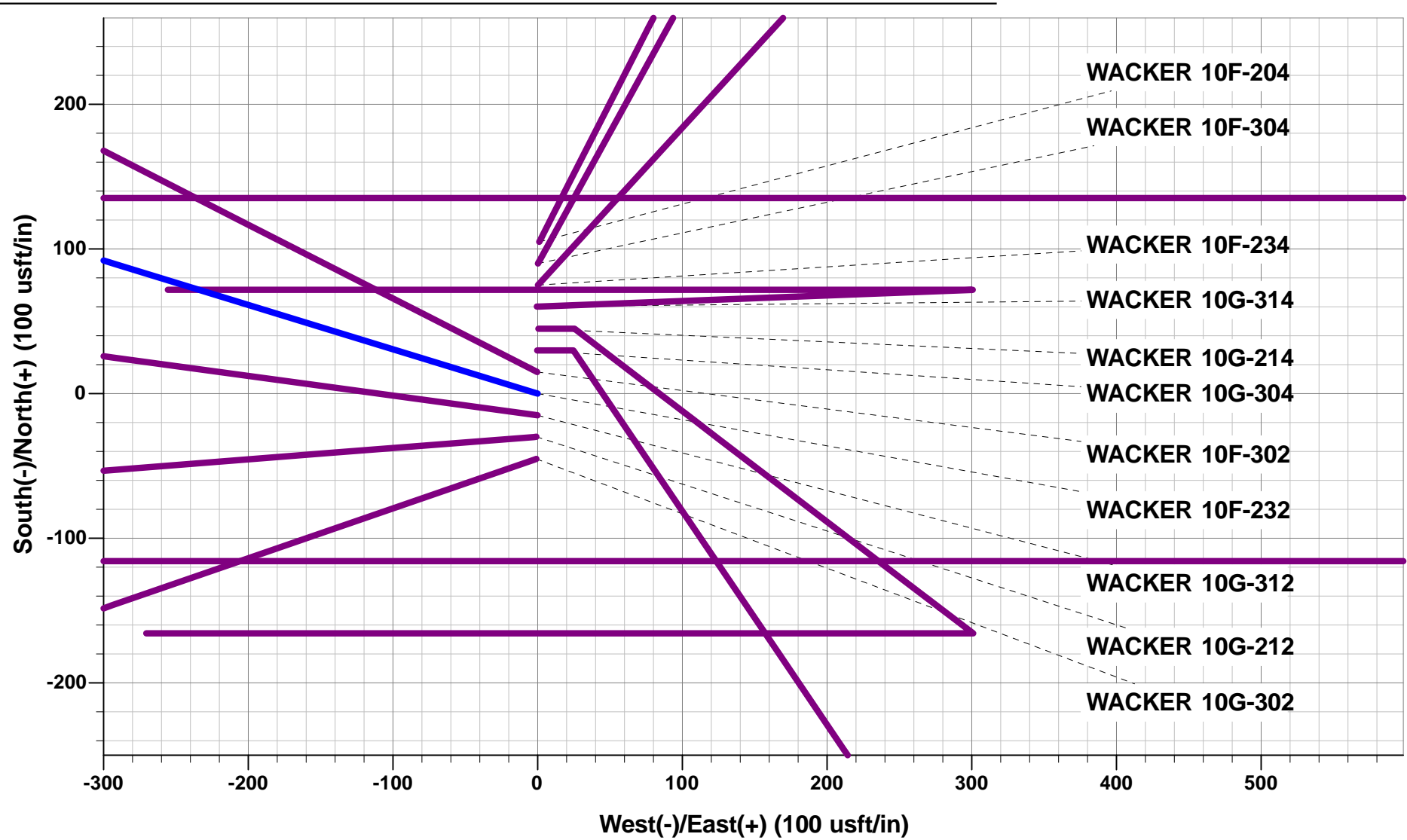


ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 2122ft FNL & 396ft FWL of Sec 10
600.0	600.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1299.2	1306.3	14.13	287.05	25.4	-82.8	-80.6	86.6	EOB TO 14.13° INC
5199.5	5328.2	14.13	287.05	313.1	-1021.2	-993.4	1068.2	END OF TANGENT
5898.6	6034.5	0.00	0.00	338.5	-1104.1	-1074.0	1154.8	EOD TO VERTICAL
5928.6	6064.5	0.00	0.00	338.5	-1104.1	-1074.0	1154.8	KOP (8°/100ft BUR)
6645.0	7199.1	90.73	90.00	338.5	-378.4	-350.6	1880.5	LANDING PNT: 1782ft FNL & 20ft FWL of Sec 10
6585.0	11865.5	90.74	90.00	338.5	4287.6	4301.0	6546.5	BHL: 1807ft FNL & 500ft FEL of Sec 10

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - WACKER 10F-232 (P2)	5928.6	338.5	-1104.1	40.416109	-104.548206
LANDING PNT - WACKER 10F-232 (P2)	6645.0	338.5	-378.4	40.416109	-104.545600
BHL - WACKER 10F-232 (P2)	6585.0	338.5	4287.6	40.416108	-104.528843

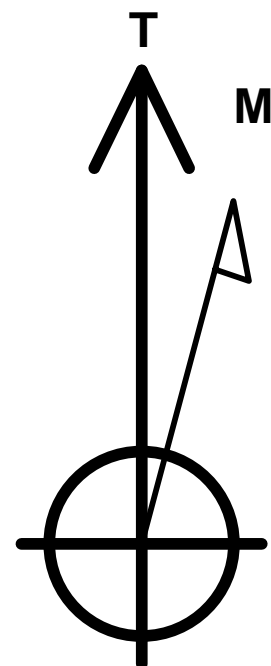


PROPOSED LOCAL COORDINATES:

SHL: 2122ft FNL & 396ft FWL of Sec 10

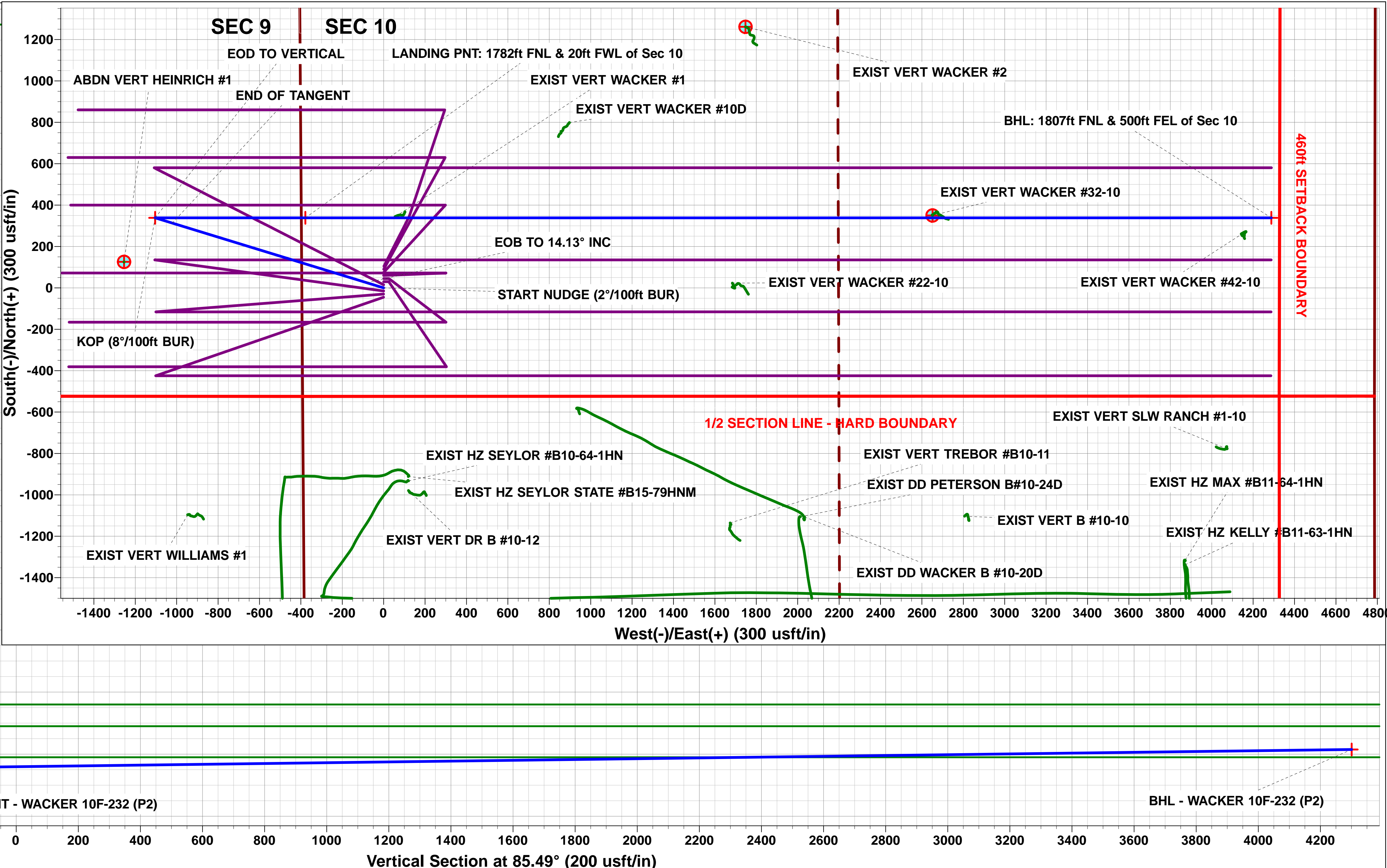
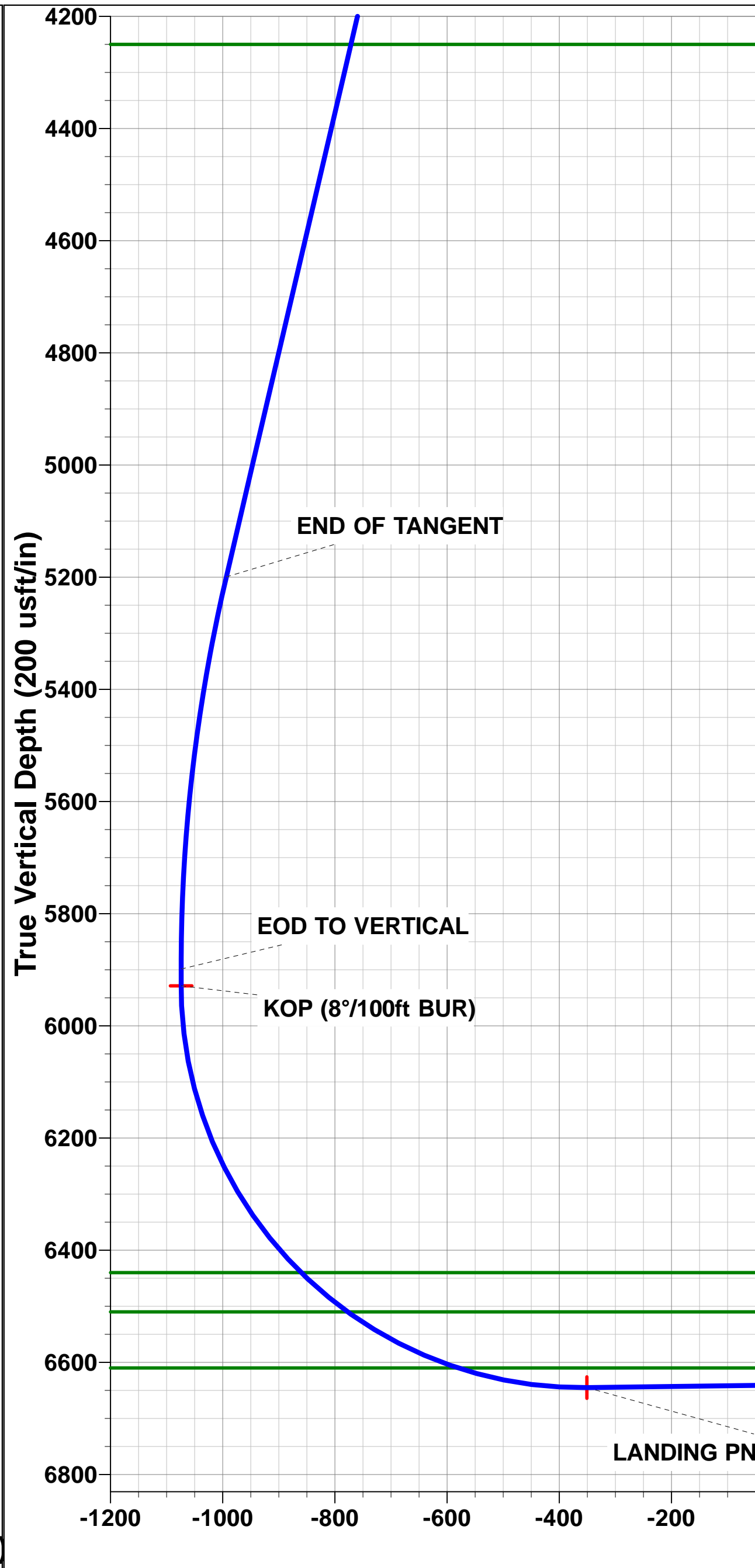
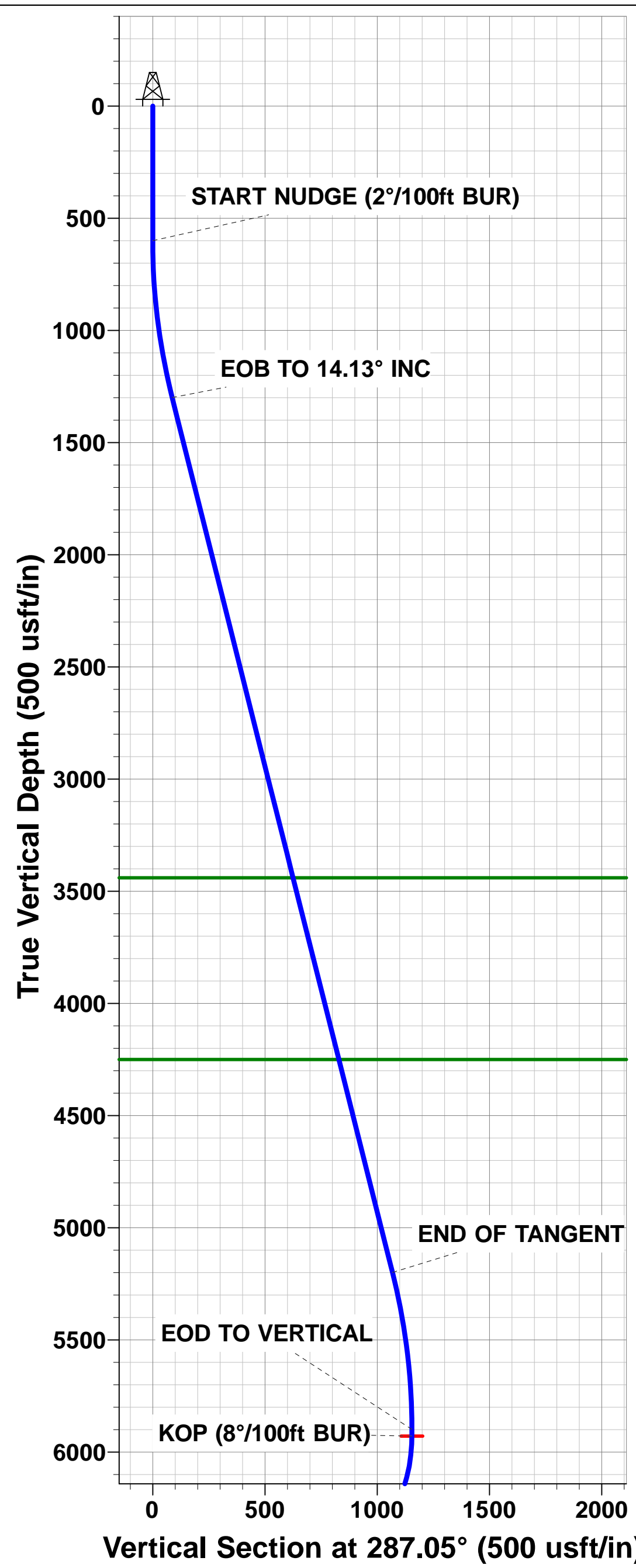
HZ LP: 1782ft FNL & 20ft FWL of Sec 10

BHL: 1807ft FNL & 500ft FEL of Sec 10



Azimuths to True North
Magnetic North: 8.12°

Magnetic Field
Strength: 52451.5snT
Dip Angle: 66.91°
Date: 24/03/2017
Model: IGRF2015



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-232
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4634.0usft
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4634.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	24/03/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	11,865.5	PROPOSAL #2 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW NW SEC. 10 T5N R64W 6th P.M.						
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	6,064.5	5,885.6	4,108.8	3,969.3	29.451	CC, ES, SF
ABDN VERT HEINRICH #1 - Wellbore #1 - Design #1	6,064.5	5,897.6	260.4	127.6	1.960	CC
ABDN VERT HEINRICH #1 - Wellbore #1 - Design #1	6,100.0	5,933.1	260.9	119.1	1.840	ES, SF
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	6,064.5	5,923.6	1,687.4	1,546.5	11.982	CC, ES, SF
ABDN VERT PLUMB #2 - Wellbore #1 - Design #1	6,064.5	5,893.6	7,989.4	7,846.6	55.930	CC, ES
ABDN VERT PLUMB #2 - Wellbore #1 - Design #1	8,400.0	6,594.6	9,903.3	9,723.3	55.004	SF
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	6,065.3	6,060.0	5,834.3	5,793.1	141.838	CC, ES
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	10,600.0	6,765.0	9,924.9	9,801.2	80.222	SF
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	3,026.5	1,481.0	7,147.4	7,135.6	604.957	CC
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	3,100.0	1,509.2	7,147.6	7,135.5	587.942	ES
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	9,100.0	6,638.4	9,912.5	9,821.4	108.906	SF
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	6,078.5	6,333.4	5,739.3	5,681.7	99.595	CC, ES
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	11,200.0	7,040.9	9,937.3	9,782.2	64.062	SF
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	9,702.6	6,669.0	2,200.9	2,103.0	22.486	CC
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	9,800.0	6,669.0	2,203.1	2,102.6	21.920	ES
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	11,100.0	6,669.0	2,607.1	2,471.1	19.170	SF
EXIST DD PJ #8I - Wellbore #1 - Wellbore #1	6,064.5	6,110.0	8,619.1	8,577.9	209.157	ES
EXIST DD PJ #8I - Wellbore #1 - Wellbore #1	6,077.2	6,127.9	8,619.0	8,585.8	259.750	CC
EXIST DD PJ #8I - Wellbore #1 - Wellbore #1	7,800.0	6,712.0	9,934.7	9,880.9	184.361	SF
EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore	8,519.5	6,751.1	931.5	854.0	12.023	CC, ES
EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore	8,800.0	6,750.4	972.8	888.2	11.503	SF
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	11,820.2	6,644.9	2,462.1	2,304.3	15.604	CC
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	11,865.5	6,657.8	2,462.4	2,303.2	15.466	ES, SF
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	11,865.5	6,696.0	1,902.2	1,743.1	11.963	CC, ES, SF
EXIST HZ SEYLROR #B10-64-1HN - Wellbore #1 - Wellbc	549.1	525.1	937.9	936.1	525.424	CC
EXIST HZ SEYLROR #B10-64-1HN - Wellbore #1 - Wellbc	600.0	574.9	937.9	935.9	468.203	ES
EXIST HZ SEYLROR #B10-64-1HN - Wellbore #1 - Wellbc	11,865.5	10,758.0	1,817.9	1,557.5	6.982	SF
EXIST HZ SEYLROR STATE #B15-79HNM - Wellbore #1	600.0	577.0	919.2	917.5	528.806	CC
EXIST HZ SEYLROR STATE #B15-79HNM - Wellbore #1	700.0	683.3	919.5	917.4	425.344	ES
EXIST HZ SEYLROR STATE #B15-79HNM - Wellbore #1	8,400.0	6,188.1	1,893.7	1,831.6	30.506	SF
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	5,898.1	5,670.8	2,232.0	2,205.8	85.024	CC
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	5,900.0	5,672.5	2,232.0	2,205.8	85.012	ES
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	11,865.5	6,458.3	7,040.8	6,896.2	48.692	SF
EXIST VERT BLOSKAS #1 - Wellbore #1 - Design #1	6,064.5	5,896.6	4,038.5	3,896.4	28.427	CC, ES, SF
EXIST VERT BLOSKAS #12-9 - Wellbore #1 - Wellbore ;	6,064.5	6,023.1	3,865.9	3,839.1	144.121	ES
EXIST VERT BLOSKAS #12-9 - Wellbore #1 - Wellbore ;	6,090.6	6,052.1	3,865.5	3,847.6	215.966	CC
EXIST VERT BLOSKAS #12-9 - Wellbore #1 - Wellbore ;	11,865.5	6,700.0	9,226.7	9,088.4	66.697	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-232
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4634.0usft
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4634.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 10 T5N R64W 6th P.M.						
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore #1	6,064.5	5,962.0	3,082.1	3,059.0	133.282	ES
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore #1	6,086.5	5,985.8	3,081.8	3,059.6	138.322	CC
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore #1	11,865.5	6,600.0	8,233.4	8,088.7	56.901	SF
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wellbore #1	6,064.5	5,983.3	3,335.4	3,308.1	122.506	ES
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wellbore #1	6,086.1	6,006.7	3,335.0	3,318.1	196.919	CC
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wellbore #1	11,865.5	6,790.0	8,675.4	8,536.4	62.409	SF
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	6,064.5	5,908.0	2,692.5	2,666.3	102.566	ES
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	6,071.5	5,915.4	2,692.5	2,674.1	146.609	CC
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	11,865.5	6,700.0	8,054.2	7,912.2	56.709	SF
EXIST VERT BOND #21-9 - Wellbore #1 - Design #1	6,064.5	5,904.6	2,800.7	2,658.7	19.719	CC, ES, SF
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	6,064.5	5,886.9	1,295.6	1,270.2	51.122	ES
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	6,067.3	5,889.3	1,295.6	1,276.5	67.717	CC
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	11,865.5	6,528.2	6,666.8	6,530.8	49.015	SF
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	100.0	60.1	986.3	986.2	10,000.000	CC
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	600.0	560.1	986.9	985.3	634.425	ES
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	9,100.0	6,568.7	1,877.4	1,807.9	27.016	SF
EXIST VERT HECKENDORF #1 - Wellbore #1 - Design #1	6,064.5	5,897.6	5,416.5	5,274.5	38.129	CC, ES, SF
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	6,476.5	6,312.3	1,119.9	971.0	7.522	CC
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	6,500.0	6,331.8	1,119.9	970.8	7.508	ES
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	6,650.0	6,445.1	1,125.4	974.7	7.469	SF
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #1	6,064.5	5,930.9	5,414.0	5,389.4	219.616	ES
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #1	6,070.8	5,935.9	5,414.0	5,393.6	265.343	CC
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #1	11,100.0	6,668.1	9,922.3	9,798.8	80.346	SF
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1	5,994.9	5,731.6	6,497.9	6,480.0	364.483	CC
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1	6,034.5	5,771.7	6,498.1	6,471.6	244.700	ES
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1	9,900.0	6,400.0	9,935.0	9,876.4	169.399	SF
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore #1	5,979.0	5,700.0	5,458.9	5,440.2	291.933	CC
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore #1	6,034.5	5,743.6	5,459.4	5,432.6	203.738	ES
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore #1	11,000.0	6,373.2	9,991.9	9,889.3	97.346	SF
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Wellbore #1	5,983.9	5,716.1	6,405.1	6,383.9	301.532	CC
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Wellbore #1	6,034.5	5,759.8	6,405.5	6,381.3	264.563	ES
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Wellbore #1	10,200.0	6,303.4	9,994.9	9,897.0	102.055	SF
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - Design #1	6,064.5	5,907.6	6,509.4	6,369.3	46.464	CC, ES
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - Design #1	10,000.0	6,588.0	9,977.2	9,756.2	45.150	SF
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - Wellbore #1	5,995.2	5,739.5	5,887.9	5,870.4	335.857	CC
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - Wellbore #1	6,034.5	5,780.6	5,888.2	5,861.1	217.704	ES
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - Wellbore #1	10,500.0	6,436.9	9,922.5	9,868.4	183.456	SF
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	7,745.6	6,623.0	1,455.1	1,287.2	8.666	CC
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	7,800.0	6,622.3	1,456.1	1,287.1	8.617	ES
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	8,000.0	6,619.7	1,477.1	1,303.9	8.526	SF
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	6,064.5	5,914.6	1,696.7	1,557.3	12.174	CC, ES, SF
EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1	6,022.8	5,815.3	8,074.8	8,056.6	443.671	CC
EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1	6,034.5	5,826.9	8,074.8	8,048.3	304.908	ES
EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1	8,400.0	6,610.3	9,999.6	9,948.9	197.470	SF
EXIST VERT PJ #2 - Wellbore #1 - Wellbore #1	5,981.7	5,675.3	7,809.8	7,790.9	413.347	CC
EXIST VERT PJ #2 - Wellbore #1 - Wellbore #1	6,034.5	5,720.9	7,810.3	7,784.7	305.123	ES
EXIST VERT PJ #2 - Wellbore #1 - Wellbore #1	8,600.0	6,400.0	9,920.0	9,864.5	178.546	SF
EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1	6,064.5	5,933.0	9,258.4	9,231.8	347.401	ES, SF
EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1	6,067.7	5,935.3	9,258.4	9,240.1	504.881	CC
EXIST VERT PJ #5 - Wellbore #1 - Design #1	6,064.5	5,901.6	8,576.4	8,434.8	60.556	CC, ES, SF
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbore #1	11,599.3	6,568.7	1,106.8	969.6	8.063	CC
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbore #1	11,600.0	6,568.7	1,106.8	969.6	8.062	ES
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbore #1	11,865.5	6,564.2	1,138.4	993.8	7.871	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4634.0usft
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4634.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 10 T5N R64W 6th P.M.						
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	9,288.1	6,524.3	1,552.0	1,477.1	20.717	CC
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	9,300.0	6,524.7	1,552.1	1,476.8	20.631	ES
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	10,200.0	6,561.8	1,799.8	1,700.3	18.085	SF
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	10,405.3	6,552.7	1,460.3	1,355.8	13.980	CC, ES
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	11,000.0	6,547.8	1,576.7	1,456.0	13.058	SF
EXIST VERT WACKER #1 - Wellbore #1 - Wellbore #1	7,680.2	6,616.5	29.0	-6.4	0.818	Level 1, CC, ES, SF
EXIST VERT WACKER #10D - Wellbore #1 - Wellbore #	8,422.2	6,618.5	395.9	343.3	7.515	CC, ES
EXIST VERT WACKER #10D - Wellbore #1 - Wellbore #	8,500.0	6,616.3	403.5	348.9	7.388	SF
EXIST VERT WACKER #2 - Wellbore #1 - Wellbore #1	9,376.2	6,623.4	837.4	760.1	10.834	CC
EXIST VERT WACKER #2 - Wellbore #1 - Wellbore #1	9,400.0	6,624.2	837.8	759.8	10.751	ES
EXIST VERT WACKER #2 - Wellbore #1 - Wellbore #1	9,600.0	6,631.1	866.8	783.5	10.413	SF
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	9,331.4	6,567.3	357.3	282.1	4.748	CC, ES
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	9,400.0	6,570.3	363.8	286.7	4.718	SF
EXIST VERT WACKER #31-10 - Wellbore #1 - Wellbore	10,244.0	6,606.4	1,198.0	1,098.1	11.986	CC
EXIST VERT WACKER #31-10 - Wellbore #1 - Wellbore	10,300.0	6,606.6	1,199.3	1,097.8	11.819	ES
EXIST VERT WACKER #31-10 - Wellbore #1 - Wellbore	10,600.0	6,608.0	1,249.8	1,140.1	11.397	SF
EXIST VERT WACKER #32-10 - Wellbore #1 - Wellbore	10,299.3	6,592.5	5.0	-96.5	0.049	Level 1, CC, ES, SF
EXIST VERT WACKER #41-10 - Wellbore #1 - Wellbore	11,862.5	6,493.4	1,213.3	1,068.7	8.391	CC
EXIST VERT WACKER #41-10 - Wellbore #1 - Wellbore	11,865.5	6,493.1	1,213.3	1,068.6	8.387	ES, SF
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	11,737.3	6,500.0	116.7	-8.2	0.934	Level 1, CC, ES, SF
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	3,208.6	3,091.6	1,325.6	1,311.7	95.077	CC
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	3,300.0	3,180.9	1,325.8	1,311.3	91.794	ES
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	11,865.5	6,565.7	5,360.2	5,215.6	37.058	SF
WACKER 10F-204 - ORIGINAL WELLBORE - PROPOS.	300.0	300.0	104.9	103.9	97.864	CC, ES
WACKER 10F-204 - ORIGINAL WELLBORE - PROPOS.	6,850.0	7,438.5	529.2	478.8	10.494	SF
WACKER 10F-234 - ORIGINAL WELLBORE - PROPOS.	7,285.1	6,979.6	61.6	15.1	1.324	Level 3, CC, ES, SF
WACKER 10F-302 - ORIGINAL WELLBORE - PROPOS.	500.0	500.0	14.9	13.0	7.577	CC
WACKER 10F-302 - ORIGINAL WELLBORE - PROPOS.	11,865.5	11,977.5	251.7	-23.5	0.914	Level 1, ES, SF
WACKER 10F-304 - ORIGINAL WELLBORE - PROPOS.	400.0	400.0	90.0	88.5	59.136	CC, ES
WACKER 10F-304 - ORIGINAL WELLBORE - PROPOS.	7,600.0	6,756.8	296.4	248.5	6.184	SF
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS.	400.0	400.0	29.9	28.4	19.640	CC
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS.	500.0	499.8	30.1	28.2	15.381	ES
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS.	11,865.5	11,843.6	454.3	168.3	1.589	SF
WACKER 10G-214 - ORIGINAL WELLBORE - PROPOS.	300.0	300.0	44.8	43.7	41.799	CC
WACKER 10G-214 - ORIGINAL WELLBORE - PROPOS.	400.0	399.9	44.9	43.4	29.695	ES
WACKER 10G-214 - ORIGINAL WELLBORE - PROPOS.	6,750.0	7,481.0	523.2	470.0	9.839	SF
WACKER 10G-302 - ORIGINAL WELLBORE - PROPOS.	300.0	300.0	45.2	44.1	42.146	CC, ES
WACKER 10G-302 - ORIGINAL WELLBORE - PROPOS.	11,865.5	11,943.0	766.4	481.9	2.694	SF
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS.	339.9	339.9	29.9	28.6	23.948	CC
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS.	400.0	400.0	29.9	28.4	19.794	ES
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS.	900.0	900.2	47.1	43.5	12.882	SF
WACKER 10G-312 - ORIGINAL WELLBORE - PROPOS.	600.0	600.0	14.9	12.5	6.170	CC
WACKER 10G-312 - ORIGINAL WELLBORE - PROPOS.	11,865.5	11,947.5	215.0	-57.5	0.789	Level 1, ES, SF
WACKER 10G-314 - ORIGINAL WELLBORE - PROPOS.	755.9	755.4	59.5	56.4	19.279	CC, ES
WACKER 10G-314 - ORIGINAL WELLBORE - PROPOS.	7,500.0	6,809.7	266.7	220.0	5.705	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Header Information	measured depth (ft)	inclination (°)	azimuth (°)	true vertical depth (ft)
Operator Name	0	0	0	0
PDC ENERGY	100	0	0	100
Operator Number	200	0	0	200
69175	300	0	0	300
Well Name and Number	400	0	0	400
WACKER 10F-232	500	0	0	500
API Number (if available)	600	0	0	600
	700	2	287.05	699.98
Location: QQ SEC TWP RGE	800	4	287.05	799.84
SW NW SEC. 10 T5N R64W	900	6	287.05	899.45
Citing Type: Planned or Actual	1000	8	287.05	998.7
Planned	1100	10	287.05	1097.47
Deviation Indicator	1200	12	287.05	1195.62
Horizontal	1300	14	287.05	1293.06
North Reference	1306.28	14.13	287.05	1299.14
True	1400	14.13	287.05	1390.03
Grid Type	1500	14.13	287.05	1487.01
	1600	14.13	287.05	1583.99
	1700	14.13	287.05	1680.96
	1800	14.13	287.05	1777.94
	1900	14.13	287.05	1874.91
	2000	14.13	287.05	1971.89
	2100	14.13	287.05	2068.87
	2200	14.13	287.05	2165.84
	2300	14.13	287.05	2262.82
	2400	14.13	287.05	2359.8
	2500	14.13	287.05	2456.77
	2600	14.13	287.05	2553.75
	2700	14.13	287.05	2650.73
	2800	14.13	287.05	2747.7
	2900	14.13	287.05	2844.68
	3000	14.13	287.05	2941.65
	3100	14.13	287.05	3038.63
	3200	14.13	287.05	3135.61
	3300	14.13	287.05	3232.58
	3400	14.13	287.05	3329.56
	3500	14.13	287.05	3426.54
	3600	14.13	287.05	3523.51
	3700	14.13	287.05	3620.49
	3800	14.13	287.05	3717.47
	3900	14.13	287.05	3814.44
	4000	14.13	287.05	3911.42

4100	14.13	287.05	4008.39
4200	14.13	287.05	4105.37
4300	14.13	287.05	4202.35
4400	14.13	287.05	4299.32
4500	14.13	287.05	4396.3
4600	14.13	287.05	4493.28
4700	14.13	287.05	4590.25
4800	14.13	287.05	4687.23
4900	14.13	287.05	4784.2
5000	14.13	287.05	4881.18
5100	14.13	287.05	4978.16
5200	14.13	287.05	5075.13
5300	14.13	287.05	5172.11
5328.2	14.13	287.05	5199.46
5400	12.69	287.05	5269.3
5500	10.69	287.05	5367.22
5600	8.69	287.05	5465.79
5700	6.69	287.05	5564.88
5800	4.69	287.05	5664.39
5900	2.69	287.05	5764.17
6000	0.69	287.05	5864.13
6034.48	0	0	5898.6
6064.48	0	0	5928.6
6100	2.84	90	5964.11
6200	10.84	90	6063.32
6300	18.84	90	6159.91
6400	26.83	90	6251.99
6500	34.83	90	6337.79
6600	42.83	90	6415.63
6700	50.82	90	6484
6800	58.82	90	6541.57
6900	66.82	90	6587.21
7000	74.81	90	6620.04
7100	82.81	90	6639.43
7199.06	90.73	90	6645
7200	90.73	90	6644.99
7300	90.73	90	6643.71
7400	90.73	90	6642.43
7500	90.73	90	6641.14
7600	90.73	90	6639.86
7700	90.73	90	6638.58
7800	90.73	90	6637.3
7900	90.73	90	6636.02
8000	90.73	90	6634.73
8100	90.74	90	6633.45
8200	90.74	90	6632.17
8300	90.74	90	6630.88

8400	90.74	90	6629.6
8500	90.74	90	6628.32
8600	90.74	90	6627.03
8700	90.74	90	6625.75
8800	90.74	90	6624.47
8900	90.74	90	6623.18
9000	90.74	90	6621.9
9100	90.74	90	6620.61
9200	90.74	90	6619.33
9300	90.74	90	6618.04
9400	90.74	90	6616.76
9500	90.74	90	6615.47
9600	90.74	90	6614.18
9700	90.74	90	6612.9
9800	90.74	90	6611.61
9900	90.74	90	6610.33
10000	90.74	90	6609.04
10100	90.74	90	6607.75
10200	90.74	90	6606.47
10300	90.74	90	6605.18
10400	90.74	90	6603.89
10500	90.74	90	6602.6
10600	90.74	90	6601.32
10700	90.74	90	6600.03
10800	90.74	90	6598.74
10900	90.74	90	6597.45
11000	90.74	90	6596.16
11100	90.74	90	6594.87
11200	90.74	90	6593.58
11300	90.74	90	6592.29
11400	90.74	90	6591.01
11500	90.74	90	6589.72
11600	90.74	90	6588.43
11700	90.74	90	6587.14
11800	90.74	90	6585.85
11865.51	90.74	90	6585