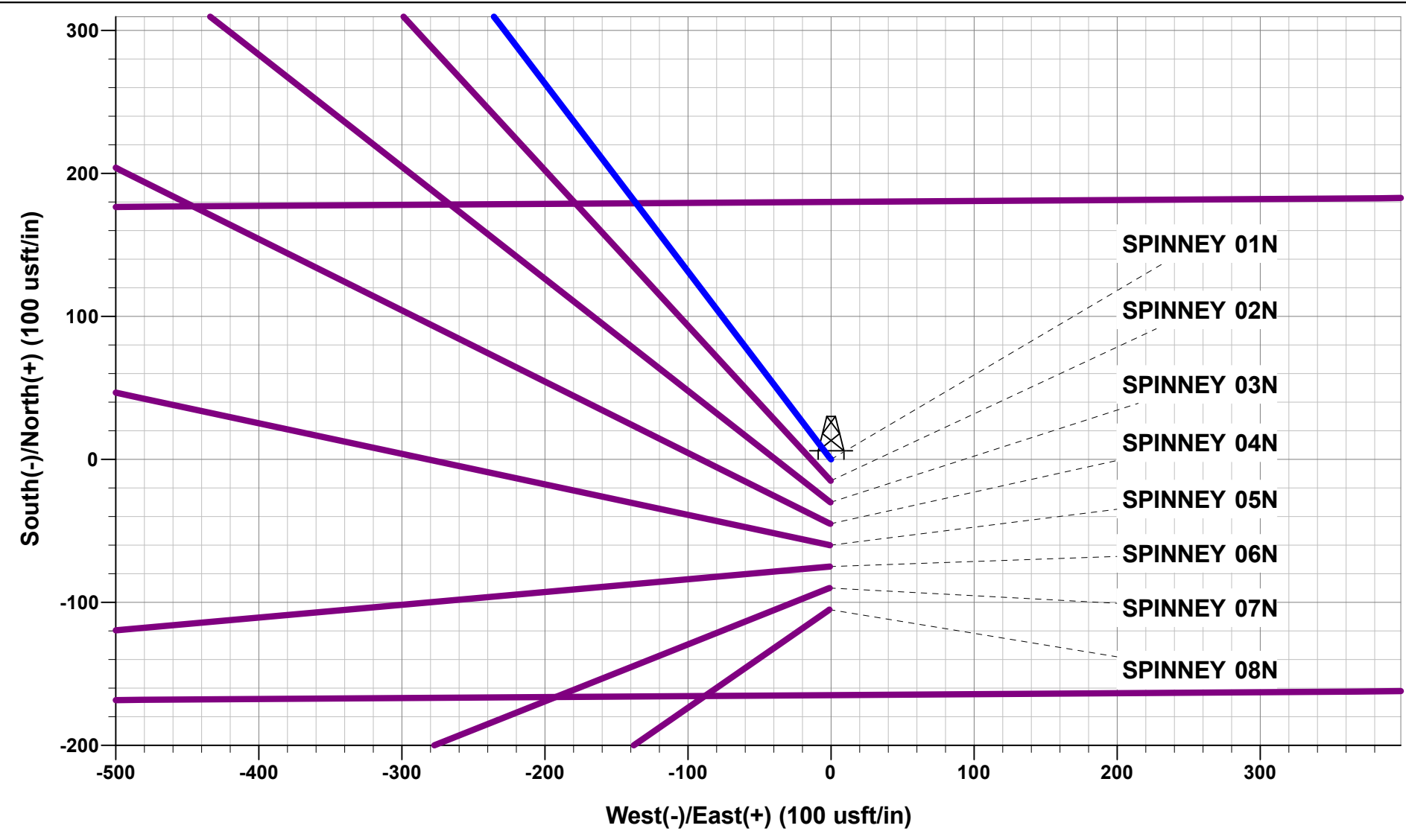




Project: WELD COUNTY, COLORADO (TRUE)  
Site: SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)  
Well: SPINNEY 01N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #2

ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 993ft FSL & 1296ft FWL of Sec 9
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
1325.00	20.50	322.75	1303.27	144.41	-109.81	-93.17	181.42	EOB TO 20.5° INC
4577.00	20.50	322.75	4349.33	1050.96	-799.17	-678.02	1320.30	END OF TANGENT
4666.80	20.50	327.88	4433.45	1076.79	-817.05	-692.93	1351.73	EOT TO 327.88° AZ
5600.68	20.50	327.88	5308.19	1353.79	-990.94	-835.11	1678.79	END OF TANGENT
6625.69	0.00	0.00	6311.47	1507.44	-1087.40	-913.99	1860.21	EOD TO 0° INC
6806.02	0.00	0.00	6491.80	1507.44	-1087.40	-913.99	1860.21	KOP (8°/100ft BUR)
7743.53	75.00	89.61	7183.60	1511.05	-556.58	-386.02	2391.04	EP: 2510ft FSL & 737ft FWL of Sec 9
7932.66	90.13	89.61	7208.00	1512.33	-369.59	-200.04	2578.04	HZ LANDING POINT
8082.66	90.13	89.61	7207.66	1513.35	-219.59	-50.85	2728.04	END OF TANGENT
8412.99	90.13	79.70	7206.92	1544.08	108.89	279.02	3058.37	EOT TO 79.7° AZ
8442.99	90.13	79.70	7206.85	1549.44	138.41	308.94	3088.37	END OF TANGENT
8773.32	90.13	89.61	7206.12	1580.18	466.89	638.81	3418.70	EOT TO 89.61° AZ
9808.32	90.13	89.61	7203.84	1587.22	1501.86	1668.21	4453.69	END OF TANGENT
10141.32	90.13	99.60	7203.08	1560.52	1833.37	1994.73	4786.69	EOT TO 99.6° AZ
10171.32	90.13	99.60	7203.01	1555.52	1862.95	2023.57	4816.69	END OF TANGENT
10504.32	90.13	89.61	7202.24	1528.82	2194.45	2350.09	5149.69	EOT TO 89.61° AZ
14759.32	90.13	89.61	7192.52	1557.78	6449.34	6582.08	9404.68	END OF TANGENT
14905.66	90.13	94.00	7192.19	1553.17	6595.57	6726.90	9551.02	EOT TO 94° AZ
14935.66	90.13	94.00	7192.12	1551.08	6625.50	6756.41	9581.02	END OF TANGENT
15081.99	90.13	89.61	7191.79	1546.47	6771.72	6901.23	9727.35	EOT TO 89.61° AZ
15131.99	90.13	89.61	7191.67	1546.81	6821.72	6950.96	9777.35	END OF TANGENT
15278.99	90.13	85.20	7191.34	1553.47	6968.53	7097.60	9924.35	EOT TO 85.2° AZ
15308.99	90.13	85.20	7191.27	1555.98	6998.43	7127.59	9954.35	END OF TANGENT
15455.99	90.14	89.61	7190.93	1562.63	7145.24	7274.24	10101.35	EOT TO 89.61° AZ
17235.99	90.14	89.61	7186.67	1574.75	8925.19	9044.61	11881.34	END OF TANGENT
17462.99	90.14	82.80	7186.13	1589.76	9151.56	9271.25	12108.34	EOT TO 82.8° AZ
17492.99	90.14	82.80	7186.06	1593.52	9181.33	9301.25	12138.34	END OF TANGENT
17947.65	90.14	96.44	7184.97	1596.53	9634.90	9752.37	12593.00	EOT TO 96.44° AZ
17977.65	90.14	96.44	7184.90	1593.16	9664.71	9781.63	12623.00	END OF TANGENT
18205.42	90.14	89.61	7184.34	1581.16	9892.03	10006.22	12850.77	EOT TO 89.61° AZ
22805.70	90.14	89.60	7173.00	1612.89	14492.19	14581.66	17451.04	BHL: 2510ft FSL & 150ft FEL of Sec 11

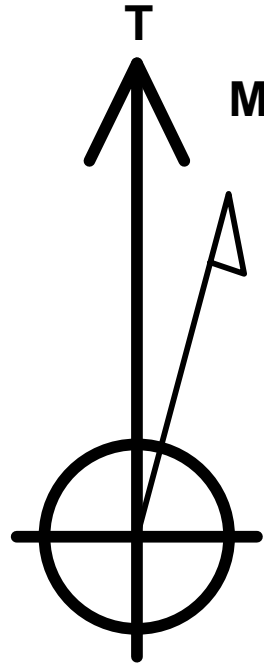


PROPOSED LOCAL COORDINATES:

SHL: 993ft FSL & 1296ft FWL of Sec 9

EP: 2510ft FSL & 737ft FWL of Sec 9

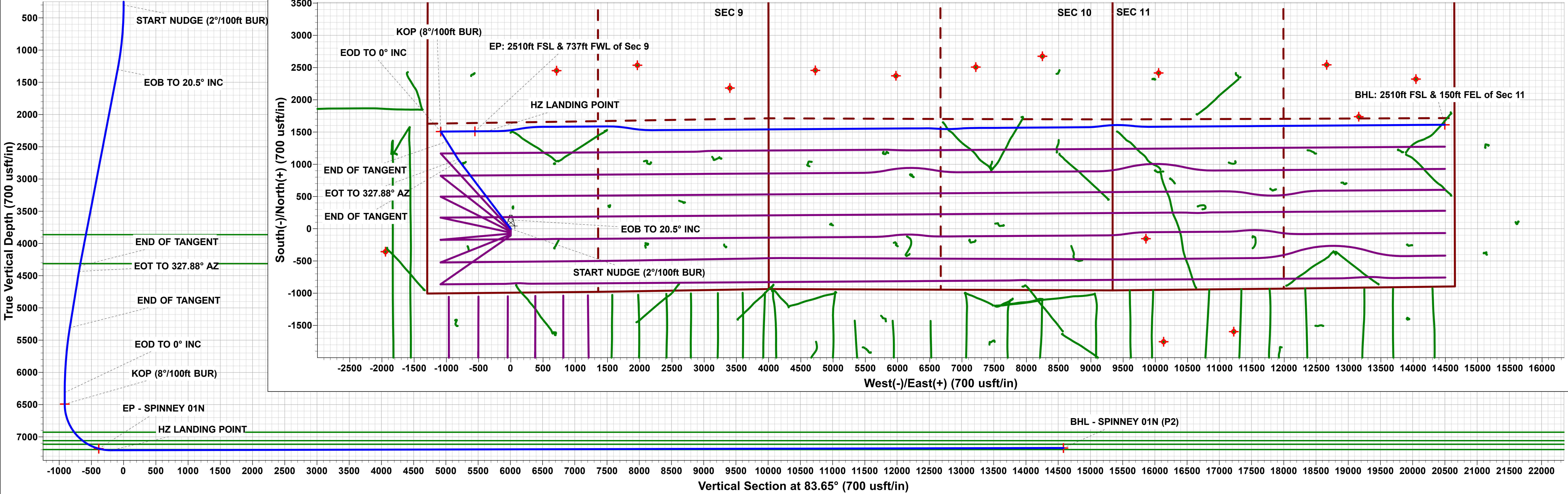
BHL: 2510ft FSL & 150ft FEL of Sec 11



Azimuths to True North  
Magnetic North: 7.87°

Magnetic Field  
Strength: 51890.6nT  
Dip Angle: 66.53°  
Date: 2021-03-18  
Model: IGRF2020

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - SPINNEY 01N (P2)	7173.00	1612.89	14492.19	1330915.17	3213458.31	40.239234	-104.735375
EP - SPINNEY 01N	7183.60	1511.05	-556.58	1330692.40	3198411.49	40.238966	-104.789278
KOP - SPINNEY 01N	6491.81	1507.44	-1087.40	1330684.52	3197880.74	40.238956	-104.791179



# **PDC ENERGY**

**WELD COUNTY, COLORADO (TRUE)  
SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)  
SPINNEY 01N**

**ORIGINAL WELLBORE  
PROPOSAL #2**

## **Anticollision Report**

**18 March, 2021**

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SPINNEY 01N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Reference Site:</b>	SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)	<b>MD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SPINNEY 01N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 9,999.98usft	<b>Error Surface:</b>	Ellipsoid Separation
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	2021-03-18		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	22,805.70	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 SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)						
ABDN DD COLAND #34-10 - Wellbore #1 - Wellbore #1	12,358.67	7,188.82	2,430.92	2,276.80	15.773	CC
ABDN DD COLAND #34-10 - Wellbore #1 - Wellbore #1	12,400.00	7,187.71	2,431.27	2,276.25	15.684	ES
ABDN DD COLAND #34-10 - Wellbore #1 - Wellbore #1	12,800.00	7,177.26	2,470.62	2,309.08	15.294	SF
ABDN DD GRAZNAK #36-11 - Wellbore #1 - Wellbore #1	20,328.44	7,334.42	2,479.42	2,101.28	6.557	CC
ABDN DD GRAZNAK #36-11 - Wellbore #1 - Wellbore #1	20,400.00	7,334.23	2,480.45	2,100.99	6.537	ES
ABDN DD GRAZNAK #36-11 - Wellbore #1 - Wellbore #1	20,500.00	7,333.95	2,485.35	2,104.63	6.528	SF
ABDN DD MORNING #39-10 - Wellbore #1 - Wellbore #1	17,449.72	7,328.00	1,141.49	845.50	3.856	CC
ABDN DD MORNING #39-10 - Wellbore #1 - Wellbore #1	17,500.00	7,328.00	1,142.88	844.17	3.826	ES
ABDN DD MORNING #39-10 - Wellbore #1 - Wellbore #1	17,600.00	7,328.00	1,149.35	847.33	3.806	SF
ABDN DD MORNING FRESH #14-10X - Wellbore #1 - W	14,453.09	7,238.06	1,678.99	1,482.59	8.549	CC
ABDN DD MORNING FRESH #14-10X - Wellbore #1 - W	14,500.00	7,236.58	1,679.65	1,482.30	8.511	ES
ABDN DD MORNING FRESH #14-10X - Wellbore #1 - W	14,600.00	7,233.41	1,685.40	1,486.60	8.478	SF
ABDN DD OLIN STATE L #16-27D - Wellbore #1 - Wellb	10,895.88	7,306.13	2,399.64	2,284.24	20.795	CC
ABDN DD OLIN STATE L #16-27D - Wellbore #1 - Wellb	10,900.00	7,306.10	2,399.64	2,284.15	20.778	ES
ABDN DD OLIN STATE L #16-27D - Wellbore #1 - Wellb	11,500.00	7,300.72	2,474.51	2,349.15	19.739	SF
ABDN DD OLIN STATE L #16-29D - Wellbore #1 - Wellb	0.00	0.00	1,747.46			
ABDN DD OLIN STATE L #16-29D - Wellbore #1 - Wellb	300.00	300.26	1,747.96	1,747.09	2,018.673	ES
ABDN DD OLIN STATE L #16-29D - Wellbore #1 - Wellb	9,700.00	7,373.76	2,789.08	2,710.75	35.610	SF
ABDN DD UPRC #15-4K2 - Wellbore #1 - Wellbore #1	13,022.39	7,831.00	3,312.46	3,151.96	20.638	CC
ABDN DD UPRC #15-4K2 - Wellbore #1 - Wellbore #1	13,100.00	7,831.00	3,313.37	3,151.00	20.407	ES
ABDN DD UPRC #15-4K2 - Wellbore #1 - Wellbore #1	13,800.00	7,831.00	3,402.51	3,227.54	19.447	SF
ABDN VERT BELL #12-13 - Wellbore #1 - Wellbore #1	22,805.70	7,255.10	2,083.94	1,672.65	5.067	CC, ES, SF
ABDN VERT BRATTAIN #1 - Wellbore #1 - Wellbore #1	22,805.70	7,244.57	1,866.90	1,529.88	5.539	CC, ES, SF
ABDN VERT BRATTAIN #12-12JI - Wellbore #1 - Wellb	22,805.70	7,264.08	749.03	640.97	6.932	CC, ES, SF
ABDN VERT DEVON #9-8 - Wellbore #1 - Wellbore #1	6,811.27	6,485.80	769.88	730.47	19.536	CC, ES, SF
ABDN VERT DINNEL #14-1K - Wellbore #1 - Wellbore #	22,210.66	7,183.86	2,994.05	2,581.31	7.254	CC
ABDN VERT DINNEL #14-1K - Wellbore #1 - Wellbore #	22,300.00	7,184.90	2,995.38	2,580.68	7.223	ES
ABDN VERT DINNEL #14-1K - Wellbore #1 - Wellbore #	22,500.00	7,187.14	3,008.00	2,590.45	7.204	SF
ABDN VERT DINNEL #14-2K - Wellbore #1 - Wellbore #	20,775.35	7,239.69	3,104.45	2,731.77	8.330	CC
ABDN VERT DINNEL #14-2K - Wellbore #1 - Wellbore #	20,800.00	7,239.66	3,104.54	2,731.28	8.317	ES
ABDN VERT DINNEL #14-2K - Wellbore #1 - Wellbore #	21,100.00	7,239.25	3,121.38	2,743.06	8.251	SF
ABDN VERT DINNEL L #14-17 - Wellbore #1 - Wellbore	21,612.78	7,343.47	3,815.12	3,418.91	9.629	CC
ABDN VERT DINNEL L #14-17 - Wellbore #1 - Wellbore	21,700.00	7,341.59	3,816.12	3,417.82	9.581	ES
ABDN VERT DINNEL L #14-17 - Wellbore #1 - Wellbore	22,000.00	7,335.12	3,834.71	3,431.03	9.499	SF
ABDN VERT EDITH WEBBER UNIT #1 - Wellbore #1 - D	16,566.24	7,209.28	1,105.73	707.85	2.779	CC
ABDN VERT EDITH WEBBER UNIT #1 - Wellbore #1 - D	16,600.00	7,209.19	1,106.24	707.22	2.772	ES, SF

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



# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SPINNEY 01N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Reference Site:</b>	SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)	<b>MD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SPINNEY 01N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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 SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)						
ABDN VERT ELMER WEBBER A #1 - Wellbore #1 - We	13,259.56	7,171.17	1,483.28	1,320.24	9.098	CC
ABDN VERT ELMER WEBBER A #1 - Wellbore #1 - We	13,300.00	7,170.42	1,483.83	1,319.99	9.056	ES
ABDN VERT ELMER WEBBER A #1 - Wellbore #1 - We	13,400.00	7,168.57	1,489.91	1,324.64	9.015	SF
ABDN VERT GRAZNAK #10-11 - Wellbore #1 - Wellbore	20,677.48	7,213.26	383.56	15.87	1.043	Level 3, CC, ES, SF
ABDN VERT HSR-ALBERTO #8-10X - Wellbore #1 - We	16,784.40	6,400.00	1,153.64	963.92	6.081	CC
ABDN VERT HSR-ALBERTO #8-10X - Wellbore #1 - We	16,800.00	6,400.00	1,153.75	963.61	6.068	ES
ABDN VERT HSR-ALBERTO #8-10X - Wellbore #1 - We	16,900.00	6,400.00	1,159.42	967.51	6.041	SF
ABDN VERT HSR-BOYD #11-10 - Wellbore #1 - Wellbor	14,092.22	7,180.52	362.19	176.42	1.950	CC, ES, SF
ABDN VERT HSR-BRINTON #14-10A - Wellbore #1 - W	14,255.49	7,154.42	1,767.18	1,576.23	9.254	CC
ABDN VERT HSR-BRINTON #14-10A - Wellbore #1 - W	14,300.00	7,152.68	1,767.74	1,575.87	9.213	ES
ABDN VERT HSR-BRINTON #14-10A - Wellbore #1 - W	14,400.00	7,148.81	1,773.07	1,579.64	9.166	SF
ABDN VERT HSR-CONOVER #15-10 - Wellbore #1 - W	15,278.64	7,164.67	1,739.18	1,520.05	7.937	CC
ABDN VERT HSR-CONOVER #15-10 - Wellbore #1 - W	15,400.00	7,162.86	1,741.26	1,518.72	7.824	ES
ABDN VERT HSR-CONOVER #15-10 - Wellbore #1 - W	15,600.00	7,160.05	1,752.12	1,526.56	7.768	SF
ABDN VERT HSR-CRONHOLM #10-10A - Wellbore #1 -	15,773.23	7,209.74	526.77	292.94	2.253	CC, ES, SF
ABDN VERT HSR-FAIRFAX #16-8 - Wellbore #1 - Desig	3,358.31	3,231.82	1,763.81	1,680.32	21.125	CC
ABDN VERT HSR-FAIRFAX #16-8 - Wellbore #1 - Desig	3,700.00	3,551.87	1,767.87	1,675.51	19.141	ES
ABDN VERT HSR-FAIRFAX #16-8 - Wellbore #1 - Desig	7,150.00	6,846.70	2,087.26	1,915.28	12.137	SF
ABDN VERT HSR-THOMPSON #9-11 - Wellbore #1 - W	22,074.16	7,233.40	381.87	-12.44	0.968	Level 3, CC, ES, SF
ABDN VERT KEENAN UPRR #31-15 - Wellbore #1 - We	15,717.01	7,036.86	3,341.31	3,110.33	14.466	CC
ABDN VERT KEENAN UPRR #31-15 - Wellbore #1 - We	15,800.00	7,036.00	3,342.35	3,109.37	14.346	ES
ABDN VERT KEENAN UPRR #31-15 - Wellbore #1 - We	16,300.00	7,031.05	3,391.79	3,150.11	14.034	SF
ABDN VERT LUCKY L #09-25 - Wellbore #1 - Wellbore #	1,490.43	1,427.98	226.56	220.36	36.509	CC
ABDN VERT LUCKY L #09-25 - Wellbore #1 - Wellbore #	1,500.00	1,437.04	226.59	220.31	36.127	ES
ABDN VERT LUCKY L #09-25 - Wellbore #1 - Wellbore #	8,800.00	7,182.86	1,323.10	1,279.57	30.396	SF
ABDN VERT PLUSS #L11-5 - Wellbore #1 - Design #1	18,370.64	7,191.93	834.16	386.34	1.863	CC
ABDN VERT PLUSS #L11-5 - Wellbore #1 - Design #1	18,400.00	7,191.86	834.68	385.81	1.860	ES, SF
ABDN VERT PLUSS L #11-6 - Wellbore #1 - Wellbore #1	19,570.02	6,800.00	914.30	613.73	3.042	CC
ABDN VERT PLUSS L #11-6 - Wellbore #1 - Wellbore #1	19,600.00	6,800.00	914.79	613.26	3.034	ES, SF
ABDN VERT RAITH L #15-3 - Wellbore #1 - Wellbore #1	13,776.63	7,352.60	3,406.03	3,228.54	19.190	CC
ABDN VERT RAITH L #15-3 - Wellbore #1 - Wellbore #1	13,900.00	7,345.51	3,408.25	3,227.78	18.885	ES
ABDN VERT RAITH L #15-3 - Wellbore #1 - Wellbore #1	14,500.00	7,290.90	3,481.74	3,290.38	18.195	SF
ABDN VERT STATE L #16-3 - Wellbore #1 - Wellbore #1	0.00	0.00	1,789.66			
ABDN VERT STATE L #16-3 - Wellbore #1 - Wellbore #1	300.00	287.13	1,790.31	1,789.49	2,186.050	ES
ABDN VERT STATE L #16-3 - Wellbore #1 - Wellbore #1	10,700.00	7,171.66	3,575.65	3,495.49	44.608	SF
ABDN VERT STATE L #16-4 - Wellbore #1 - Wellbore #1	161.60	168.61	1,718.50	1,718.16	5,025.421	CC
ABDN VERT STATE L #16-4 - Wellbore #1 - Wellbore #1	303.95	311.91	1,718.56	1,717.77	2,174.019	ES
ABDN VERT STATE L #16-4 - Wellbore #1 - Wellbore #1	10,300.00	7,071.21	4,106.49	4,046.44	68.383	SF
ABDN VERT UPRC #15-3K - Wellbore #1 - Wellbore #1	14,035.06	7,235.00	2,904.00	2,718.80	15.681	CC
ABDN VERT UPRC #15-3K - Wellbore #1 - Wellbore #1	14,100.00	7,235.00	2,904.72	2,717.99	15.555	ES
ABDN VERT UPRC #15-3K - Wellbore #1 - Wellbore #1	14,600.00	7,235.00	2,958.44	2,763.21	15.154	SF
ABDN VERT UPRC #9-10K - Wellbore #1 - Wellbore #1	10,411.29	7,148.77	480.85	396.20	5.680	CC, ES, SF
ABDN VERT UPRC #9-14K - Wellbore #1 - Wellbore #1	301.95	270.40	745.08	744.35	1,023.045	CC, ES
ABDN VERT UPRC #9-14K - Wellbore #1 - Wellbore #1	9,700.00	7,226.07	1,889.02	1,823.32	28.752	SF
ABDN VERT UPRC #9-15K - Wellbore #1 - Wellbore #1	10,452.30	7,186.23	1,757.97	1,671.51	20.333	CC, ES
ABDN VERT UPRC #9-15K - Wellbore #1 - Wellbore #1	10,800.00	7,170.49	1,800.53	1,707.99	19.457	SF
ABDN VERT UPRC #9-16K - Wellbore #1 - Wellbore #1	11,607.20	7,216.73	1,789.18	1,671.55	15.210	CC, ES
ABDN VERT UPRC #9-16K - Wellbore #1 - Wellbore #1	11,900.00	7,216.68	1,812.98	1,690.19	14.765	SF
ABDN VERT UPRC #9-5K - Wellbore #1 - Wellbore #1	7,050.00	6,674.60	1,008.84	971.87	27.288	SF
ABDN VERT UPRC #9-5K - Wellbore #1 - Wellbore #1	7,725.74	7,120.17	891.83	863.52	31.501	CC, ES
ABDN VERT UPRR 21 PAN AM B #1 - Wellbore #1 - We	1,165.34	1,135.77	725.23	721.16	178.314	CC
ABDN VERT UPRR 21 PAN AM B #1 - Wellbore #1 - We	1,200.00	1,169.11	725.30	721.02	169.813	ES

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

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SPINNEY 01N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Reference Site:</b>	SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)	<b>MD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SPINNEY 01N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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 SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)						
ABDN VERT UPRR 21 PAN AM B #1 - Wellbore #1 - We	8,400.00	7,202.42	1,969.05	1,930.45	51.023	SF
ABDN VERT UPRR 21 PAN AM C #1 - Wellbore #1 - We	18,538.16	7,210.60	805.86	495.41	2.596	CC, ES, SF
EXIST DD BIRMINGHAM L #09-20D - Wellbore #1 - Wel	8,296.73	7,262.23	36.25	2.35	1.069	Level 3, CC
EXIST DD BIRMINGHAM L #09-20D - Wellbore #1 - Wel	8,300.00	7,262.21	36.40	1.93	1.056	Level 3, ES, SF
EXIST DD BIRMINGHAM L #09-21D - Wellbore #1 - Wel	9,769.98	7,277.82	69.32	0.95	1.014	Level 3, CC, ES, SF
EXIST DD COLAND #41-17 - Wellbore #1 - Wellbore #1	363.20	436.17	2,990.44	2,988.86	1,900.063	CC
EXIST DD COLAND #41-17 - Wellbore #1 - Wellbore #1	400.00	479.97	2,990.54	2,988.79	1,709.261	ES
EXIST DD COLAND #41-17 - Wellbore #1 - Wellbore #1	10,400.00	7,310.46	5,104.99	5,021.48	61.124	SF
EXIST DD DEVON #38-8 - Wellbore #1 - Wellbore #1	2,918.88	2,853.56	1,687.04	1,670.12	99.731	CC, ES
EXIST DD DEVON #38-8 - Wellbore #1 - Wellbore #1	4,577.00	4,203.90	1,949.49	1,923.05	73.714	SF
EXIST DD GRAZNAK #32-11 - Wellbore #1 - Wellbore #	17,718.37	7,301.43	100.20	-197.65	0.336	Level 3, CC, ES, SF
EXIST DD GRAZNAK #35-11 - Wellbore #1 - Wellbore #	18,929.34	7,508.77	2,501.45	2,160.54	7.338	CC
EXIST DD GRAZNAK #35-11 - Wellbore #1 - Wellbore #	19,000.00	7,509.13	2,502.44	2,159.59	7.299	ES
EXIST DD GRAZNAK #35-11 - Wellbore #1 - Wellbore #	19,200.00	7,510.16	2,516.05	2,169.15	7.253	SF
EXIST DD GRAZNAK #37-11 - Wellbore #1 - Wellbore #	21,760.54	7,312.68	2,468.75	2,051.25	5.913	CC
EXIST DD GRAZNAK #37-11 - Wellbore #1 - Wellbore #	21,800.00	7,312.53	2,469.07	2,050.61	5.900	ES
EXIST DD GRAZNAK #37-11 - Wellbore #1 - Wellbore #	21,900.00	7,312.12	2,472.69	2,052.36	5.883	SF
EXIST DD GRAZNAK #39-11 - Wellbore #1 - Wellbore #	22,805.70	7,378.93	1,104.13	657.91	2.474	CC, ES, SF
EXIST DD GRAZNAK #40-11 - Wellbore #1 - Wellbore #	22,805.70	7,367.79	211.34	40.01	1.234	Level 3, CC, ES, SF
EXIST DD MORNING #24-10 - Wellbore #1 - Wellbore #	16,245.64	7,305.55	163.18	-84.30	0.659	Level 3, CC, ES, SF
EXIST DD MORNING #25-10 - Wellbore #1 - Wellbore #	15,014.49	7,330.37	102.64	-115.80	0.470	Level 3, CC, ES, SF
EXIST DD MORNING #37-10 - Wellbore #1 - Wellbore #	16,250.21	7,298.09	2,466.34	2,203.26	9.375	CC
EXIST DD MORNING #37-10 - Wellbore #1 - Wellbore #	16,300.00	7,294.08	2,466.84	2,202.50	9.332	ES
EXIST DD MORNING #37-10 - Wellbore #1 - Wellbore #	16,600.00	7,221.86	2,490.73	2,221.51	9.252	SF
EXIST DD MORNING #41-15 - Wellbore #1 - Wellbore #	17,334.44	7,272.27	3,679.75	3,386.09	12.531	CC
EXIST DD MORNING #41-15 - Wellbore #1 - Wellbore #	17,400.00	7,272.21	3,681.46	3,385.84	12.453	ES
EXIST DD MORNING #41-15 - Wellbore #1 - Wellbore #	18,200.00	7,271.82	3,733.41	3,421.77	11.980	SF
EXIST DD MURRAY #21-14 - Wellbore #1 - Wellbore #1	20,202.24	7,281.26	3,823.60	3,453.96	10.344	CC
EXIST DD MURRAY #21-14 - Wellbore #1 - Wellbore #1	20,300.00	7,280.84	3,824.85	3,452.87	10.282	ES
EXIST DD MURRAY #21-14 - Wellbore #1 - Wellbore #1	20,700.00	7,279.09	3,855.87	3,477.04	10.178	SF
EXIST DD PLUSS L #11-20D - Wellbore #1 - Wellbore #1	18,956.24	7,302.85	189.52	-124.14	0.604	Level 3, CC, ES, SF
EXIST HZ BARCLAY FARMS #28-1HZ - Wellbore #1 - W	10,232.95	18,422.00	2,599.66	2,469.86	20.027	CC
EXIST HZ BARCLAY FARMS #28-1HZ - Wellbore #1 - W	10,300.00	18,422.00	2,601.70	2,466.10	19.186	ES
EXIST HZ BARCLAY FARMS #28-1HZ - Wellbore #1 - W	11,700.00	18,422.00	3,144.39	2,916.15	13.777	SF
EXIST HZ BARCLAY FARMS #28-2HZ - Wellbore #1 - W	10,403.27	18,248.00	2,558.67	2,444.99	22.508	CC
EXIST HZ BARCLAY FARMS #28-2HZ - Wellbore #1 - W	10,500.00	18,248.00	2,562.94	2,441.54	21.110	ES
EXIST HZ BARCLAY FARMS #28-2HZ - Wellbore #1 - W	12,100.00	18,248.00	3,141.81	2,910.89	13.606	SF
EXIST HZ BARCLAY FARMS #28-3HZ - Wellbore #1 - W	10,705.30	18,205.00	2,541.10	2,428.59	22.587	CC
EXIST HZ BARCLAY FARMS #28-3HZ - Wellbore #1 - W	10,900.00	18,205.00	2,548.55	2,424.02	20.466	ES
EXIST HZ BARCLAY FARMS #28-3HZ - Wellbore #1 - W	12,500.00	18,205.00	3,110.97	2,878.04	13.356	SF
EXIST HZ BARCLAY FARMS #28-4HZ - Wellbore #1 - W	11,086.93	18,088.00	2,537.69	2,416.41	20.925	CC
EXIST HZ BARCLAY FARMS #28-4HZ - Wellbore #1 - W	11,200.00	18,088.00	2,540.21	2,414.00	20.127	ES
EXIST HZ BARCLAY FARMS #28-4HZ - Wellbore #1 - W	12,800.00	18,088.00	3,061.78	2,828.90	13.148	SF
EXIST HZ BARCLAY FARMS #28-5HZ - Wellbore #1 - W	11,505.53	18,145.00	2,535.39	2,402.87	19.132	CC
EXIST HZ BARCLAY FARMS #28-5HZ - Wellbore #1 - W	11,600.00	18,145.00	2,537.15	2,402.11	18.788	ES
EXIST HZ BARCLAY FARMS #28-5HZ - Wellbore #1 - W	13,200.00	18,145.00	3,049.50	2,813.62	12.928	SF
EXIST HZ BARCLAY FARMS #28-6HZ - Wellbore #1 - W	11,890.18	18,097.00	2,535.61	2,391.38	17.581	CC
EXIST HZ BARCLAY FARMS #28-6HZ - Wellbore #1 - W	11,900.00	18,097.00	2,535.63	2,391.34	17.573	ES
EXIST HZ BARCLAY FARMS #28-6HZ - Wellbore #1 - W	13,600.00	18,097.00	3,058.23	2,817.64	12.711	SF
EXIST HZ BARCLAY FARMS #28-8HZ - Wellbore #1 - W	12,236.19	18,253.00	2,531.03	2,374.60	16.180	CC, ES
EXIST HZ BARCLAY FARMS #28-8HZ - Wellbore #1 - W	13,900.00	18,253.00	3,028.92	2,785.52	12.444	SF
EXIST HZ DCP #16N-17HZ - Wellbore #1 - Wellbore #1	6,812.79	6,504.86	757.07	707.86	15.385	CC, ES

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

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SPINNEY 01N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Reference Site:</b>	SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)	<b>MD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SPINNEY 01N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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 SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)						
EXIST HZ DCP #16N-17HZ - Wellbore #1 - Wellbore #1	6,850.00	6,539.24	758.09	708.79	15.378	SF
EXIST HZ DCP STATE #38N-17HZ - Wellbore #1 - Wellbore #1	6,565.17	6,279.12	487.84	442.78	10.825	CC, ES
EXIST HZ DCP STATE #38N-17HZ - Wellbore #1 - Wellbore #1	6,850.00	6,568.51	490.09	444.21	10.683	SF
EXIST HZ EISENACH #32N-8HZ - Wellbore #1 - Wellbore #1	6,752.15	6,462.58	440.76	407.69	13.328	CC
EXIST HZ EISENACH #32N-8HZ - Wellbore #1 - Wellbore #1	6,806.02	6,514.86	440.86	407.60	13.254	ES
EXIST HZ EISENACH #32N-8HZ - Wellbore #1 - Wellbore #1	6,850.00	6,555.84	441.95	408.51	13.216	SF
EXIST HZ FERGE #28N-14HZ - Wellbore #1 - Wellbore #1	20,000.00	12,518.00	2,531.12	2,152.12	6.678	SF
EXIST HZ FERGE #28N-14HZ - Wellbore #1 - Wellbore #1	20,069.26	12,518.00	2,530.17	2,151.38	6.680	CC, ES
EXIST HZ FERGE #29N-14HZ - Wellbore #1 - Wellbore #1	19,133.55	12,188.00	2,533.49	2,191.24	7.402	CC, ES
EXIST HZ FERGE #29N-14HZ - Wellbore #1 - Wellbore #1	19,400.00	12,188.00	2,547.46	2,201.96	7.373	SF
EXIST HZ FERGE #30N-14HZ - Wellbore #1 - Wellbore #1	18,074.45	12,265.00	2,547.66	2,228.73	7.988	CC
EXIST HZ FERGE #30N-14HZ - Wellbore #1 - Wellbore #1	18,100.00	12,265.00	2,547.96	2,227.91	7.961	ES
EXIST HZ FERGE #30N-14HZ - Wellbore #1 - Wellbore #1	18,500.00	12,265.00	2,607.18	2,273.08	7.804	SF
EXIST HZ FERGE #3N-14HZ - Wellbore #1 - Wellbore #1	19,631.72	12,273.00	2,530.58	2,169.68	7.012	CC, ES, SF
EXIST HZ FERGE #4C-14HZ - Wellbore #1 - Wellbore #1	18,261.77	12,383.00	2,540.29	2,222.22	7.986	CC
EXIST HZ FERGE #4C-14HZ - Wellbore #1 - Wellbore #1	18,400.00	12,383.00	2,544.05	2,220.67	7.867	ES
EXIST HZ FERGE #4C-14HZ - Wellbore #1 - Wellbore #1	18,800.00	12,383.00	2,596.69	2,259.82	7.708	SF
EXIST HZ MELBA #26N-14HZ - Wellbore #1 - Wellbore #1	22,500.00	13,935.00	2,537.79	2,085.87	5.616	SF
EXIST HZ MELBA #26N-14HZ - Wellbore #1 - Wellbore #1	22,596.46	13,935.00	2,535.96	2,084.60	5.619	CC, ES
EXIST HZ MELBA #27N-14HZ - Wellbore #1 - Wellbore #1	21,538.97	13,782.00	2,542.81	2,132.86	6.203	CC
EXIST HZ MELBA #27N-14HZ - Wellbore #1 - Wellbore #1	21,600.00	13,782.00	2,543.54	2,132.85	6.193	ES
EXIST HZ MELBA #27N-14HZ - Wellbore #1 - Wellbore #1	21,900.00	13,782.00	2,568.31	2,152.17	6.172	SF
EXIST HZ MELBA #28N-14HZ - Wellbore #1 - Wellbore #1	21,984.90	13,742.00	2,540.53	2,114.91	5.969	CC, ES, SF
EXIST HZ MELBA #2N-14HZ - Wellbore #1 - Wellbore #1	20,621.89	13,769.00	2,525.73	2,140.26	6.552	CC
EXIST HZ MELBA #2N-14HZ - Wellbore #1 - Wellbore #1	20,700.00	13,769.00	2,526.94	2,138.00	6.497	ES
EXIST HZ MELBA #2N-14HZ - Wellbore #1 - Wellbore #1	21,100.00	13,769.00	2,570.58	2,165.67	6.348	SF
EXIST HZ MORNING FRESH #15N-15HZ - Wellbore #1	15,223.95	6,703.00	2,618.55	2,392.40	11.579	CC
EXIST HZ MORNING FRESH #15N-15HZ - Wellbore #1	15,278.99	6,703.00	2,619.90	2,392.23	11.507	ES
EXIST HZ MORNING FRESH #15N-15HZ - Wellbore #1	15,700.00	6,703.00	2,650.32	2,414.43	11.235	SF
EXIST HZ MORNING FRESH #16N-15HZ - Wellbore #1	17,287.65	6,981.00	2,641.44	2,341.58	8.809	CC
EXIST HZ MORNING FRESH #16N-15HZ - Wellbore #1	17,300.00	6,981.00	2,641.51	2,341.33	8.800	ES
EXIST HZ MORNING FRESH #16N-15HZ - Wellbore #1	17,462.99	6,981.00	2,655.14	2,351.49	8.744	SF
EXIST HZ MORNING FRESH #28N-15HZ - Wellbore #1	14,973.10	12,322.00	2,982.86	2,756.94	13.203	CC
EXIST HZ MORNING FRESH #28N-15HZ - Wellbore #1	15,000.00	12,322.00	2,983.17	2,756.93	13.186	ES
EXIST HZ MORNING FRESH #28N-15HZ - Wellbore #1	15,700.00	12,322.00	3,120.07	2,879.96	12.994	SF
EXIST HZ MORNING FRESH #29C-15HZ - Wellbore #1	14,213.95	12,416.00	2,985.34	2,780.76	14.592	CC
EXIST HZ MORNING FRESH #29C-15HZ - Wellbore #1	14,300.00	12,416.00	2,986.58	2,780.00	14.457	ES
EXIST HZ MORNING FRESH #29C-15HZ - Wellbore #1	15,200.00	12,416.00	3,132.19	2,898.35	13.394	SF
EXIST HZ MORNING FRESH #35N-15HZ - Wellbore #1	13,325.57	6,819.65	2,592.32	2,413.44	14.492	CC
EXIST HZ MORNING FRESH #35N-15HZ - Wellbore #1	13,400.00	6,819.47	2,593.39	2,412.86	14.365	ES
EXIST HZ MORNING FRESH #35N-15HZ - Wellbore #1	13,800.00	6,818.57	2,635.38	2,448.52	14.104	SF
EXIST HZ MORNING FRESH #37C-15HZ - Wellbore #1	16,035.20	6,845.00	2,718.91	2,468.64	10.864	CC
EXIST HZ MORNING FRESH #37C-15HZ - Wellbore #1	16,100.00	6,845.00	2,719.69	2,467.93	10.803	ES
EXIST HZ MORNING FRESH #37C-15HZ - Wellbore #1	16,400.00	6,845.00	2,743.28	2,486.62	10.688	SF
EXIST HZ MORNING FRESH #37N-15HZ - Wellbore #1	16,538.09	6,798.00	2,725.41	2,458.67	10.218	CC
EXIST HZ MORNING FRESH #37N-15HZ - Wellbore #1	16,600.00	6,798.00	2,726.11	2,457.99	10.168	ES
EXIST HZ MORNING FRESH #37N-15HZ - Wellbore #1	16,900.00	6,798.00	2,749.33	2,476.58	10.080	SF
EXIST HZ MORNING FRESH #3N-15HZ - Wellbore #1 -	13,625.54	12,318.00	2,975.93	2,786.53	15.713	CC
EXIST HZ MORNING FRESH #3N-15HZ - Wellbore #1 -	13,700.00	12,318.00	2,976.86	2,784.56	15.480	ES
EXIST HZ MORNING FRESH #3N-15HZ - Wellbore #1 -	14,800.00	12,318.00	3,198.89	2,966.93	13.791	SF
EXIST HZ MORNING FRESH STATE #13N-15HZ - Wellbore #1	12,362.94	6,649.26	2,594.91	2,448.16	17.682	CC
EXIST HZ MORNING FRESH STATE #13N-15HZ - Wellbore #1	12,400.00	6,649.27	2,595.18	2,447.53	17.577	ES

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

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SPINNEY 01N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Reference Site:</b>	SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)	<b>MD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SPINNEY 01N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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 SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)						
EXIST HZ MORNING FRESH STATE #13N-15HZ - Wellb	12,900.00	6,649.38	2,649.90	2,493.06	16.895	SF
EXIST VERT ANDERSON #8-9 - Wellbore #1 - Design #	11,713.10	7,158.48	645.91	383.78	2.464	CC, ES, SF
EXIST VERT ANDERSON L #09-24 - Wellbore #1 - Well	9,860.90	7,134.27	1,234.78	1,164.42	17.548	CC
EXIST VERT ANDERSON L #09-24 - Wellbore #1 - Well	9,900.00	7,133.39	1,235.00	1,163.88	17.365	ES
EXIST VERT ANDERSON L #09-24 - Wellbore #1 - Well	10,171.32	7,127.70	1,248.69	1,174.07	16.733	SF
EXIST VERT ANDERSON UPRR #32-9A - Wellbore #1 -	10,118.82	7,151.13	983.93	766.70	4.529	CC
EXIST VERT ANDERSON UPRR #32-9A - Wellbore #1 -	10,141.32	7,151.08	984.32	766.15	4.512	ES
EXIST VERT ANDERSON UPRR #32-9A - Wellbore #1 -	10,300.00	7,150.71	998.16	774.31	4.459	SF
EXIST VERT FOUR RAITH UNIT #1 - Wellbore #1 - Wel	15,845.34	7,200.01	1,483.43	1,248.55	6.316	CC, ES
EXIST VERT FOUR RAITH UNIT #1 - Wellbore #1 - Wel	15,900.00	7,197.94	1,484.43	1,248.62	6.295	SF
EXIST VERT GRAZNAK #19-11 - Wellbore #1 - Wellbore	18,962.74	7,212.76	1,238.04	916.06	3.845	CC, ES
EXIST VERT GRAZNAK #19-11 - Wellbore #1 - Wellbore	19,000.00	7,212.78	1,238.60	916.15	3.841	SF
EXIST VERT HATCH #32-11 - Wellbore #1 - Design #1	20,978.87	7,221.50	942.69	421.29	1.808	CC
EXIST VERT HATCH #32-11 - Wellbore #1 - Design #1	21,000.00	7,221.45	942.93	420.73	1.806	ES, SF
EXIST VERT HATCH-UPRR #42-11 #1 - Wellbore #1 - D	22,362.14	7,240.09	711.67	151.14	1.270	Level 3, CC, ES
EXIST VERT HATCH-UPRR #42-11 #1 - Wellbore #1 - D	22,400.00	7,240.00	712.67	151.25	1.269	Level 3, SF
EXIST VERT HSR-BONN #16-10A - Wellbore #1 - Wellb	17,014.55	7,422.79	1,911.27	1,644.39	7.161	CC, ES
EXIST VERT HSR-BONN #16-10A - Wellbore #1 - Wellb	17,200.00	7,415.42	1,920.24	1,650.67	7.123	SF
EXIST VERT HSR-CAFFERTA #9-10A - Wellbore #1 - W	16,800.00	7,217.82	218.75	-40.77	0.843	Level 3, ES, SF
EXIST VERT HSR-CAFFERTA #9-10A - Wellbore #1 - W	16,808.69	7,217.78	218.57	-23.87	0.902	Level 3, CC
EXIST VERT HSR-CHADIMA #4-14 - Wellbore #1 - Desi	18,418.95	7,231.82	3,336.03	2,885.96	7.412	CC
EXIST VERT HSR-CHADIMA #4-14 - Wellbore #1 - Desi	18,500.00	7,231.62	3,337.01	2,885.03	7.383	ES
EXIST VERT HSR-CHADIMA #4-14 - Wellbore #1 - Desi	18,800.00	7,230.88	3,357.72	2,900.40	7.342	SF
EXIST VERT HSR-CHRISTY #3-14 - Wellbore #1 - Desig	19,508.90	7,244.13	3,186.42	2,705.55	6.626	CC
EXIST VERT HSR-CHRISTY #3-14 - Wellbore #1 - Desig	19,600.00	7,243.90	3,187.72	2,704.76	6.600	ES
EXIST VERT HSR-CHRISTY #3-14 - Wellbore #1 - Desig	19,800.00	7,243.41	3,199.69	2,713.22	6.577	SF
EXIST VERT HSR-COOPER 12-10A - Wellbore #1 - We	12,919.71	7,147.76	569.32	415.66	3.705	CC, ES, SF
EXIST VERT HSR-HOWARD #15-11A - Wellbore #1 - W	21,054.51	7,223.58	1,967.20	1,586.62	5.169	CC
EXIST VERT HSR-HOWARD #15-11A - Wellbore #1 - W	21,100.00	7,223.45	1,967.73	1,586.27	5.159	ES
EXIST VERT HSR-HOWARD #15-11A - Wellbore #1 - W	21,200.00	7,223.19	1,972.57	1,590.09	5.157	SF
EXIST VERT HSR-HUNTER #12-11 - Wellbore #1 - Well	18,303.90	7,201.15	677.65	374.25	2.234	CC, ES, SF
EXIST VERT HSR-KILDALL #13-11 - Wellbore #1 - Desi	18,179.41	7,227.41	1,735.34	1,292.22	3.916	CC
EXIST VERT HSR-KILDALL #13-11 - Wellbore #1 - Desi	18,200.00	7,227.35	1,735.58	1,292.09	3.914	ES
EXIST VERT HSR-KILDALL #13-11 - Wellbore #1 - Desi	18,205.49	7,227.34	1,735.72	1,292.15	3.913	SF
EXIST VERT HSR-MILLER #7-10 - Wellbore #1 - Design	15,532.23	7,211.75	944.86	575.81	2.560	CC, ES
EXIST VERT HSR-MILLER #7-10 - Wellbore #1 - Design	15,600.00	7,211.59	947.29	576.27	2.553	SF
EXIST VERT HSR-RABIN #16-11A - Wellbore #1 - Wellb	22,206.79	7,225.75	1,858.20	1,445.43	4.502	CC, ES
EXIST VERT HSR-RABIN #16-11A - Wellbore #1 - Wellb	22,300.00	7,225.77	1,860.54	1,446.44	4.493	SF
EXIST VERT HSR-RAGAZZI #10-11 - Wellbore #1 - Wel	21,200.51	7,216.27	888.08	503.55	2.310	CC, ES, SF
EXIST VERT HSR-ROSSEN #14-11A - Wellbore #1 - We	19,809.25	7,187.00	1,718.78	1,373.04	4.971	CC, ES
EXIST VERT HSR-ROSSEN #14-11A - Wellbore #1 - We	19,900.00	7,186.89	1,721.18	1,374.12	4.959	SF
EXIST VERT HSR-WALKER #11-11A - Wellbore #1 - We	19,449.52	7,209.09	563.75	228.31	1.681	CC, ES, SF
EXIST VERT LUCKY L #9-23 - Wellbore #1 - Wellbore #	10,951.09	7,164.35	1,111.00	1,011.42	11.157	CC, ES
EXIST VERT LUCKY L #9-23 - Wellbore #1 - Wellbore #	11,100.00	7,155.56	1,120.90	1,019.09	11.010	SF
EXIST VERT MILE HIGH #24-11 - Wellbore #1 - Design	21,470.61	7,235.29	134.43	-396.92	0.253	Level 3, CC, ES, SF
EXIST VERT MORNING FRESH #11-10 - Wellbore #1 -	14,523.23	7,186.81	719.93	521.87	3.635	CC, ES, SF
EXIST VERT PENTON #23-11 - Wellbore #1 - Wellbore #	20,089.46	7,221.87	973.32	619.86	2.754	CC
EXIST VERT PENTON #23-11 - Wellbore #1 - Wellbore #	20,100.00	7,221.89	973.37	619.81	2.753	ES, SF
EXIST VERT PLUSS L #11-5JI - Wellbore #1 - Wellbore	18,279.18	7,195.11	742.96	440.27	2.455	CC
EXIST VERT PLUSS L #11-5JI - Wellbore #1 - Wellbore	18,300.00	7,194.53	743.25	439.73	2.449	ES, SF
EXIST VERT PRESLEY #10-5K - Wellbore #1 - Design #	13,040.97	7,170.45	910.32	611.35	3.045	CC, ES
EXIST VERT PRESLEY #10-5K - Wellbore #1 - Design #	13,100.00	7,170.31	912.23	611.40	3.032	SF

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



# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SPINNEY 01N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Reference Site:</b>	SW SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)	<b>MD Reference:</b>	KB (23ft) @ 4883.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SPINNEY 01N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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 SW SEC. 9 T3N R66W 6th P.M. (SPINNEY)						
EXIST VERT PRESLEY #10-6K - Wellbore #1 - Design #	14,291.09	7,187.59	818.29	484.39	2.451	CC
EXIST VERT PRESLEY #10-6K - Wellbore #1 - Design #	14,300.00	7,187.57	818.34	484.09	2.448	ES, SF
EXIST VERT UPRC #9-11K - Wellbore #1 - Wellbore #1	8,972.58	7,151.86	575.62	527.09	11.861	CC, ES
EXIST VERT UPRC #9-11K - Wellbore #1 - Wellbore #1	9,100.00	7,151.43	589.56	539.12	11.688	SF
EXIST VERT UPRC #9-12K - Wellbore #1 - Wellbore #1	4,399.89	4,150.44	31.28	3.70	1.134	Level 3, CC
EXIST VERT UPRC #9-12K - Wellbore #1 - Wellbore #1	4,400.00	4,150.54	31.28	3.70	1.134	Level 3, ES, SF
EXIST VERT UPRC #9-6K - Wellbore #1 - Design #1	9,022.69	7,155.57	870.44	678.93	4.545	CC, ES
EXIST VERT UPRC #9-6K - Wellbore #1 - Design #1	9,100.00	7,155.40	873.87	680.47	4.518	SF
EXIST VERT UPRC #9-9K - Wellbore #1 - Wellbore #1	11,438.05	7,166.19	430.30	317.31	3.808	CC, ES, SF
SARCHET 21-1HZ - Wellbore #1 - Design #1	7,387.39	18,300.53	2,569.98	2,523.92	55.799	CC
SARCHET 21-1HZ - Wellbore #1 - Design #1	7,450.00	18,300.53	2,570.92	2,523.41	54.115	ES
SARCHET 21-1HZ - Wellbore #1 - Design #1	10,200.00	18,300.53	3,865.66	3,666.89	19.448	SF
SARCHET 21-1HZ - Wellbore #1 - Wellbore #1						Out of range
SARCHET 21-2HZ - Wellbore #1 - Design #1	7,791.25	18,360.23	2,564.33	2,517.13	54.330	CC, ES
SARCHET 21-2HZ - Wellbore #1 - Design #1	10,400.00	18,360.23	3,660.13	3,465.35	18.791	SF
SARCHET 21-2HZ - Wellbore #1 - Wellbore #1						Out of range
SARCHET 21-4HZ - Wellbore #1 - Design #1	8,100.00	18,311.04	2,565.86	2,507.06	43.638	ES
SARCHET 21-4HZ - Wellbore #1 - Design #1	8,149.32	18,311.04	2,564.75	2,507.07	44.466	CC
SARCHET 21-4HZ - Wellbore #1 - Design #1	10,700.00	18,311.04	3,546.75	3,354.04	18.404	SF
SARCHET 21-4HZ - Wellbore #1 - Wellbore #1						Out of range
SARCHET 21-5HZ - Wellbore #1 - Design #1	8,300.00	18,474.35	2,598.71	2,518.92	32.571	ES
SARCHET 21-5HZ - Wellbore #1 - Design #1	8,330.01	18,474.35	2,598.30	2,519.65	33.034	CC
SARCHET 21-5HZ - Wellbore #1 - Design #1	11,100.00	18,474.35	3,527.71	3,330.67	17.904	SF
SARCHET 21-5HZ - Wellbore #1 - Wellbore #1						Out of range
SARCHET 21-6HZ - Wellbore #1 - Design #1	9,100.00	18,524.43	2,622.45	2,534.88	29.947	ES
SARCHET 21-6HZ - Wellbore #1 - Design #1	9,102.48	18,524.43	2,622.45	2,534.91	29.957	CC
SARCHET 21-6HZ - Wellbore #1 - Design #1	11,400.00	18,524.43	3,436.76	3,241.07	17.562	SF
SARCHET 21-6HZ - Wellbore #1 - Wellbore #1						Out of range
SARCHET 21-7HZ - Wellbore #1 - Design #1	9,400.00	18,599.18	2,620.11	2,516.04	25.175	ES
SARCHET 21-7HZ - Wellbore #1 - Design #1	9,484.74	18,599.18	2,618.74	2,516.24	25.548	CC
SARCHET 21-7HZ - Wellbore #1 - Design #1	11,700.00	18,599.18	3,379.60	3,182.10	17.112	SF
SARCHET 21-7HZ - Wellbore #1 - Wellbore #1						Out of range
SPINNEY 02N - ORIGINAL WELLBORE - PROPOSAL #	300.00	300.00	14.98	13.91	13.974	CC
SPINNEY 02N - ORIGINAL WELLBORE - PROPOSAL #	22,800.00	22,648.97	351.64	-198.19	0.640	Level 3, ES, SF
SPINNEY 03N - ORIGINAL WELLBORE - PROPOSAL #	300.00	301.00	30.03	28.95	27.950	CC
SPINNEY 03N - ORIGINAL WELLBORE - PROPOSAL #	22,802.75	22,689.67	684.90	-88.09	0.886	Level 3, ES, SF
SPINNEY 04N - ORIGINAL WELLBORE - PROPOSAL #	300.00	301.00	45.03	43.96	41.916	CC, ES
SPINNEY 04N - ORIGINAL WELLBORE - PROPOSAL #	22,800.00	22,561.62	1,013.81	174.80	1.208	Level 3, SF
SPINNEY 05N - ORIGINAL WELLBORE - PROPOSAL #	300.00	301.00	60.05	58.97	55.891	CC, ES
SPINNEY 05N - ORIGINAL WELLBORE - PROPOSAL #	22,805.70	22,613.94	1,334.78	479.39	1.560	SF
SPINNEY 06N - ORIGINAL WELLBORE - PROPOSAL #	300.00	301.00	74.98	73.91	69.790	CC, ES
SPINNEY 06N - ORIGINAL WELLBORE - PROPOSAL #	22,805.70	22,540.10	1,682.41	830.18	1.974	SF
SPINNEY 07N - ORIGINAL WELLBORE - PROPOSAL #	300.00	301.00	89.95	88.88	83.727	CC, ES
SPINNEY 07N - ORIGINAL WELLBORE - PROPOSAL #	22,805.70	22,658.27	2,029.64	1,175.14	2.375	SF
SPINNEY 08N - ORIGINAL WELLBORE - PROPOSAL #	216.33	217.33	105.04	104.34	150.428	CC
SPINNEY 08N - ORIGINAL WELLBORE - PROPOSAL #	300.00	300.00	105.04	103.97	97.898	ES
SPINNEY 08N - ORIGINAL WELLBORE - PROPOSAL #	22,805.70	22,585.34	2,371.51	1,517.54	2.777	SF

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