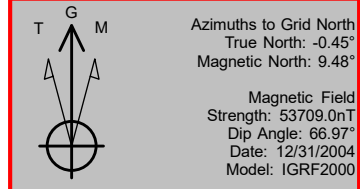




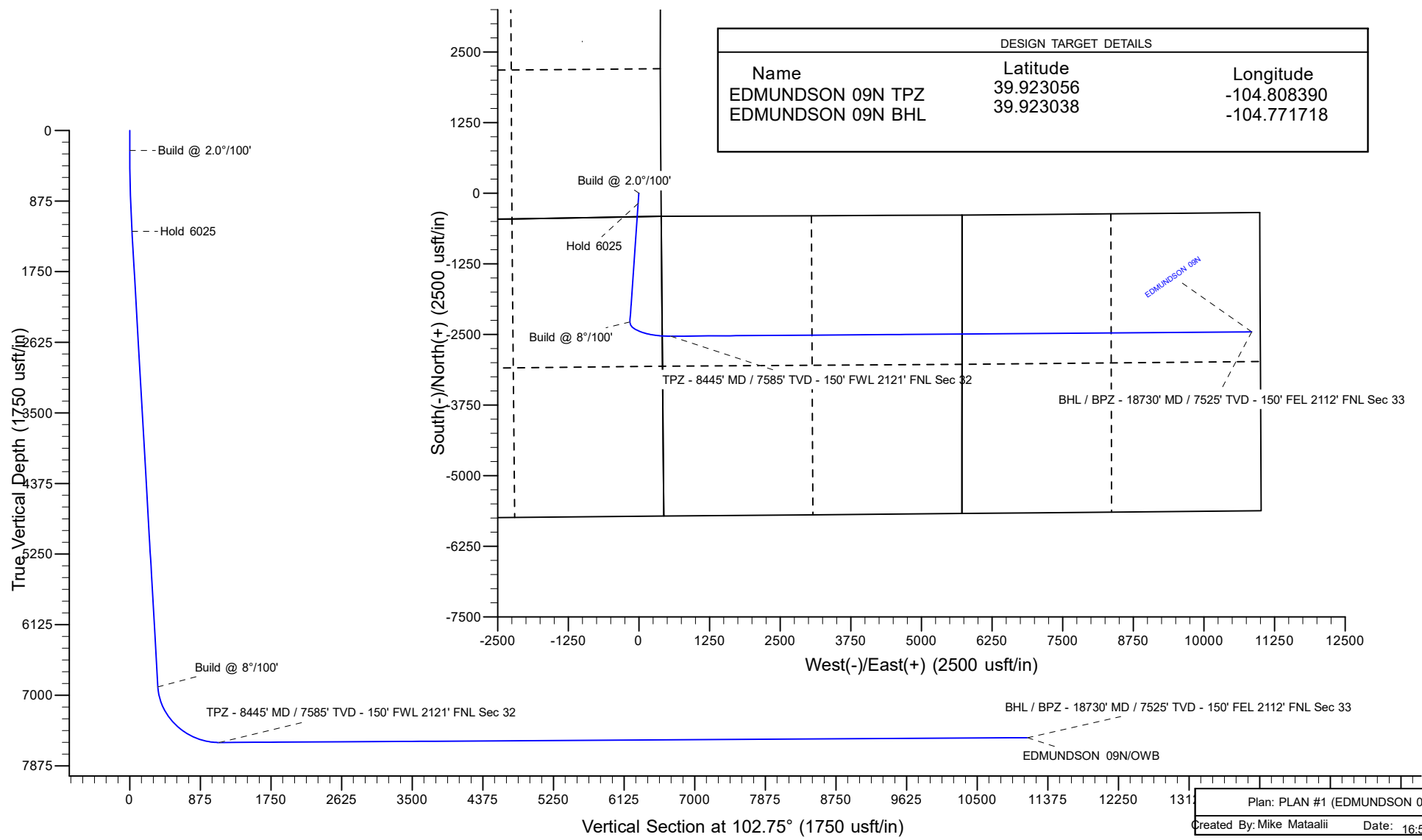
Project: WELD COUNTY
 Site: Edmundson Pad
 Well: EDMUNDSON 09N
 Wellbore: OWB
 Design: PLAN #1
 Lat: 39.930015
 Long: -104.810329
 GL: 5052.0
 KB: KB 25 @ 5077.0usft



WELL DETAILS: EDMUNDSON 09N						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1218105.19	3193410.24	39.930015	-104.810329	

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	Build @ 2.0°/100'
1271.7	20.43	183.97	1250.2	-179.8	-12.5	2.00	183.97	27.5	Hold 6025
7296.9	20.43	183.97	6896.2	-2278.4	-158.3	0.00	0.00	348.4	Build @ 8°/100'
8445.0	90.33	89.58	7585.0	-2530.6	563.5	8.00	-94.00	1108.0	TPZ - 8445' MD / 7585' TVD - 150' FWL 2121' FNL Sec 32
18730.4	90.33	89.58	7525.0	-2454.6	10848.5	0.00	0.00	11122.7	BHL / BPZ - 18730' MD / 7525' TVD - 150' FEL 2112' FNL Sec 33

DESIGN TARGET DETAILS		
Name	Latitude	Longitude
EDMUNDSON 09N TPZ	39.923056	-104.808390
EDMUNDSON 09N BHL	39.923038	-104.771718



PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 09N
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 09N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,500.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/13/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,730.4	PLAN #1 (OWB)	MWD	OWSG 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						
Edmundson Offsets						
CUTLER 1-A - OWB - OWB	11,600.0	7,579.6	134.5	-106.7	0.558	No-Go Zone - Stop Drilling, E
CUTLER 1-A - OWB - OWB	11,609.2	7,579.5	134.1	-105.9	0.559	No-Go Zone - Stop Drilling, (
CUTLER 1D - OWB - OWB	12,406.5	7,577.9	1,193.2	933.2	4.590	CC, ES, SF
EDMUNDSON LE 33-082HC - OWB - OWB	758.9	758.7	56.0	49.8	9.044	CC, ES
EDMUNDSON LE 33-082HC - OWB - OWB	18,600.0	18,443.0	929.4	366.7	1.652	Collision Risk Procedures Re
ERGER 1 - OWB - OWB	11,515.2	7,595.1	2,397.6	2,159.6	10.076	CC
ERGER 1 - OWB - OWB	11,600.0	7,594.6	2,399.1	2,158.3	9.963	ES
ERGER 1 - OWB - OWB	12,100.0	7,591.7	2,467.9	2,212.9	9.677	SF
ERNEST H KALLSEN 2 - OWB - OWB						Out of range
ERNST H KALLSEN 1 - OWB - OWB						Out of range
EVERETTE DAHLINGER A1 - OWB - OWB						Out of range
FARNER 1 - OWB - OWB	12,762.7	7,577.8	1,216.7	1,067.8	8.173	CC
FARNER 1 - OWB - OWB	12,800.0	7,577.6	1,217.2	1,066.7	8.088	ES
FARNER 1 - OWB - OWB	13,000.0	7,576.4	1,239.6	1,082.5	7.890	SF
FREEMAN 1 - OWB - OWB	7,949.8	7,454.5	1,327.9	1,156.7	7.755	CC
FREEMAN 1 - OWB - OWB	7,950.0	7,454.6	1,327.9	1,156.7	7.755	ES
FREEMAN 1 - OWB - OWB	8,100.0	7,531.6	1,340.9	1,166.8	7.703	SF
FREEMAN 1-A - OWB - OWB	7,949.8	7,448.5	1,327.9	1,156.8	7.760	CC
FREEMAN 1-A - OWB - OWB	7,950.0	7,448.6	1,327.9	1,156.8	7.759	ES
FREEMAN 1-A - OWB - OWB	8,100.0	7,525.6	1,340.9	1,166.9	7.707	SF
GREEN 1 - OWB - OWB						Out of range
IKE 1 - OWB - OWB						Out of range
KIMMEL 12-33 - OWB - OWB	14,297.4	7,577.9	296.4	-12.2	0.960	No-Go Zone - Stop Drilling, (
OHD 1 - OWB - OWB						Out of range
PC 1S-66-2928 - OWB - OWB	287.2	322.7	2,204.6	2,201.3	674.974	CC
PC 1S-66-2928 - OWB - OWB	300.0	333.5	2,204.6	2,201.3	665.915	ES
PC 1S-66-2928 - OWB - OWB	1,900.0	1,962.9	2,493.9	2,479.9	178.083	SF
PC 1S-66-2928 14CDH - OWB - OWB	0.0	17.0	2,172.1			
PC 1S-66-2928 14CDH - OWB - OWB	200.0	198.9	2,173.1	2,170.6	840.943	ES
PC 1S-66-2928 14CDH - OWB - OWB	3,300.0	3,606.3	2,495.1	2,464.1	80.543	SF
PC 1S-66-2928 17NH - OWB - OWB	0.0	17.0	2,152.0			
PC 1S-66-2928 17NH - OWB - OWB	1,900.0	2,499.2	2,159.6	2,139.4	107.224	ES
PC 1S-66-2928 17NH - OWB - OWB	6,100.0	6,338.0	2,476.5	2,414.0	39.611	SF
PC 1S-66-2928 17NH - ST01 - ST01	0.0	17.0	2,152.0			
PC 1S-66-2928 17NH - ST01 - ST01	1,900.0	2,499.2	2,159.6	2,139.4	107.224	ES
PC 1S-66-2928 17NH - ST01 - ST01	6,100.0	6,338.0	2,476.5	2,414.0	39.611	SF
PC 1S-66-2928 19NH - OWB - OWB	2,959.5	3,549.0	1,922.6	1,888.1	55.811	CC

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

PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 09N
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 09N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	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
Edmundson Offsets						
PC 1S-66-2928 19NH - OWB - OWB	4,153.1	4,782.0	1,931.9	1,883.4	39.790	ES
PC 1S-66-2928 19NH - OWB - OWB	18,400.0	17,580.0	2,496.8	1,952.5	4.587	SF
PC 1S-66-2928 20CDH - OWB - OWB	4,911.2	5,497.8	1,731.0	1,672.4	29.582	CC
PC 1S-66-2928 20CDH - OWB - OWB	18,400.0	17,875.0	2,052.9	1,509.8	3.780	ES, SF
PC 1S-66-2928 9NH - OWB - OWB	0.0	15.0	1,984.8			
PC 1S-66-2928 9NH - OWB - OWB	200.0	201.9	1,985.8	1,983.2	765.765	ES
PC 1S-66-2928 9NH - OWB - OWB	2,500.0	2,259.5	2,499.1	2,478.2	119.548	SF
POLLARD 1 - OWB - OWB						Out of range
PRAIRIE LE 31-369HC - OWB - OWB	7,567.8	16,258.4	1,907.3	1,737.6	11.240	CC
PRAIRIE LE 31-369HC - OWB - OWB	7,600.0	16,267.9	1,908.3	1,737.3	11.160	ES
PRAIRIE LE 31-369HC - OWB - OWB	7,750.0	16,306.9	1,937.8	1,761.3	10.975	SF
REASONER 1 - OWB - OWB	9,593.3	7,620.3	2,205.5	2,011.3	11.356	CC
REASONER 1 - OWB - OWB	9,700.0	7,619.7	2,208.0	2,010.8	11.195	ES
REASONER 1 - OWB - OWB	10,200.0	7,616.8	2,287.4	2,076.6	10.854	SF
REASONER 1-A - OWB - OWB	10,260.5	7,623.4	1,218.0	1,009.4	5.839	CC
REASONER 1-A - OWB - OWB	10,300.0	7,623.2	1,218.6	1,008.5	5.800	ES
REASONER 1-A - OWB - OWB	10,500.0	7,622.0	1,241.3	1,024.3	5.719	SF
REASONER 1A-X - OWB - OWB	9,593.3	7,628.3	2,205.5	2,011.1	11.348	CC
REASONER 1A-X - OWB - OWB	9,700.0	7,627.7	2,208.0	2,010.7	11.187	ES
REASONER 1A-X - OWB - OWB	10,200.0	7,624.8	2,287.4	2,076.5	10.847	SF
SUPERS 1 - OWB - OWB	8,938.8	7,592.1	132.9	-49.1	0.730	No-Go Zone - Stop Drilling, (

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

PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 09N
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 09N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	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
Edmundson Pad						
Edmundson Pad						
EDMUNDSON 01N - OWB - PLAN #1	829.4	832.6	87.8	80.4	11.809	CC
EDMUNDSON 01N - OWB - PLAN #1	900.0	902.6	88.6	80.2	10.602	ES
EDMUNDSON 01N - OWB - PLAN #1	18,730.4	18,381.8	1,902.2	1,318.5	3.259	SF
EDMUNDSON 02N - OWB - PLAN #1	888.9	891.6	75.8	67.8	9.471	CC
EDMUNDSON 02N - OWB - PLAN #1	900.0	902.7	75.8	67.7	9.302	ES
EDMUNDSON 02N - OWB - PLAN #1	18,730.4	18,314.1	1,690.5	1,106.8	2.896	SF
EDMUNDSON 03N - OWB - PLAN #1	939.0	941.3	64.2	56.2	7.938	CC
EDMUNDSON 03N - OWB - PLAN #1	1,000.0	1,001.9	64.8	55.7	7.180	ES
EDMUNDSON 03N - OWB - PLAN #1	18,730.4	18,438.6	1,479.9	895.4	2.532	SF
EDMUNDSON 04NA - OWB - PLAN #1	1,009.9	1,011.8	52.4	43.8	6.090	CC
EDMUNDSON 04NA - OWB - PLAN #1	1,100.0	1,101.4	53.6	43.3	5.239	ES
EDMUNDSON 04NA - OWB - PLAN #1	18,730.4	18,256.6	1,276.1	697.6	2.206	SF
EDMUNDSON 05N - OWB - PLAN #1	1,127.1	1,128.5	42.0	32.6	4.476	CC
EDMUNDSON 05N - OWB - PLAN #1	1,200.0	1,201.2	42.6	31.9	3.965	ES
EDMUNDSON 05N - OWB - PLAN #1	18,730.4	18,485.6	845.2	260.6	1.446	Collision Avoidance Req., SF
EDMUNDSON 06N - OWB - PLAN #1	1,167.6	1,168.7	31.2	21.4	3.189	CC
EDMUNDSON 06N - OWB - PLAN #1	1,271.7	1,272.5	32.6	20.5	2.700	ES
EDMUNDSON 06N - OWB - PLAN #1	18,730.4	18,622.7	635.9	50.7	1.087	Collision Avoidance Req., SF
EDMUNDSON 07NA - OWB - PLAN #1	1,239.9	1,240.5	20.5	10.2	1.990	Collision Risk Procedures Re
EDMUNDSON 07NA - OWB - PLAN #1	18,730.4	18,466.6	446.8	-102.9	0.813	No-Go Zone - Stop Drilling, E
EDMUNDSON 08C - OWB - PLAN #1	1,228.2	1,228.6	10.3	0.3	1.032	Collision Avoidance Req., CC
EDMUNDSON 08C - OWB - PLAN #1	18,729.1	18,890.9	294.4	-163.3	0.643	No-Go Zone - Stop Drilling, E
EDMUNDSON 10N - OWB - PLAN #1	1,341.7	1,341.4	10.5	-0.6	0.944	No-Go Zone - Stop Drilling, C
EDMUNDSON 10N - OWB - PLAN #1	18,730.4	18,892.3	218.4	-344.9	0.388	No-Go Zone - Stop Drilling, E
EDMUNDSON 11NA - OWB - PLAN #1	1,388.3	1,387.7	20.8	9.1	1.776	Collision Risk Procedures Re
EDMUNDSON 11NA - OWB - PLAN #1	18,730.4	18,779.6	445.2	-122.3	0.785	No-Go Zone - Stop Drilling, E
EDMUNDSON 12C - OWB - PLAN #1	1,426.7	1,425.9	31.3	19.1	2.564	CC
EDMUNDSON 12C - OWB - PLAN #1	1,600.0	1,598.7	34.0	18.0	2.127	ES
EDMUNDSON 12C - OWB - PLAN #1	18,730.4	19,199.0	671.0	121.2	1.220	Collision Avoidance Req., SF
EDMUNDSON 13N - OWB - PLAN #1	1,322.9	1,307.9	108.3	96.4	9.081	CC
EDMUNDSON 13N - OWB - PLAN #1	1,400.0	1,383.9	108.7	95.9	8.482	ES
EDMUNDSON 13N - OWB - PLAN #1	18,730.4	19,048.8	845.3	260.2	1.445	Collision Avoidance Req., SF
EDMUNDSON 14N - OWB - PLAN #1	1,298.7	1,283.4	98.7	86.7	8.217	CC
EDMUNDSON 14N - OWB - PLAN #1	1,400.0	1,383.2	99.5	86.3	7.565	ES
EDMUNDSON 14N - OWB - PLAN #1	18,730.4	19,231.9	1,058.3	475.1	1.815	Collision Risk Procedures Re
EDMUNDSON 15NA - OWB - PLAN #1	1,281.4	1,265.8	89.3	77.0	7.261	CC
EDMUNDSON 15NA - OWB - PLAN #1	1,300.0	1,284.1	89.3	76.8	7.169	ES
EDMUNDSON 15NA - OWB - PLAN #1	18,730.4	19,153.7	1,275.0	689.7	2.178	SF
EDMUNDSON 16C - OWB - PLAN #1	626.5	620.5	80.0	73.1	11.620	CC
EDMUNDSON 16C - OWB - PLAN #1	1,300.0	1,283.7	80.2	67.2	6.162	ES
EDMUNDSON 16C - OWB - PLAN #1	18,730.4	19,565.6	1,496.2	920.1	2.597	SF
EDMUNDSON 17N - OWB - PLAN #1	250.0	250.0	62.5	59.7	22.644	CC
EDMUNDSON 17N - OWB - PLAN #1	1,300.0	1,283.0	63.0	48.3	4.298	ES
EDMUNDSON 17N - OWB - PLAN #1	18,730.4	19,468.9	1,690.5	1,104.7	2.886	SF
EDMUNDSON 18N - OWB - PLAN #1	912.3	901.3	55.9	43.9	4.663	CC
EDMUNDSON 18N - OWB - PLAN #1	1,300.0	1,282.7	56.1	40.3	3.564	ES
EDMUNDSON 18N - OWB - PLAN #1	18,730.4	19,661.6	1,903.1	1,318.2	3.254	SF
EDMUNDSON 19NA - OWB - PLAN #1	1,274.3	1,257.3	50.7	34.1	3.048	CC
EDMUNDSON 19NA - OWB - PLAN #1	1,300.0	1,282.5	50.8	34.0	3.020	ES
EDMUNDSON 19NA - OWB - PLAN #1	1,400.0	1,380.9	53.2	35.5	3.007	SF
EDMUNDSON 20C - OWB - PLAN #1	1,281.7	1,264.3	47.7	30.2	2.725	CC
EDMUNDSON 20C - OWB - PLAN #1	1,300.0	1,282.3	47.8	30.1	2.707	ES, SF
EDMUNDSON 21N - OWB - PLAN #1	1,291.5	1,273.8	47.4	29.6	2.664	CC

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

PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 09N
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 09N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

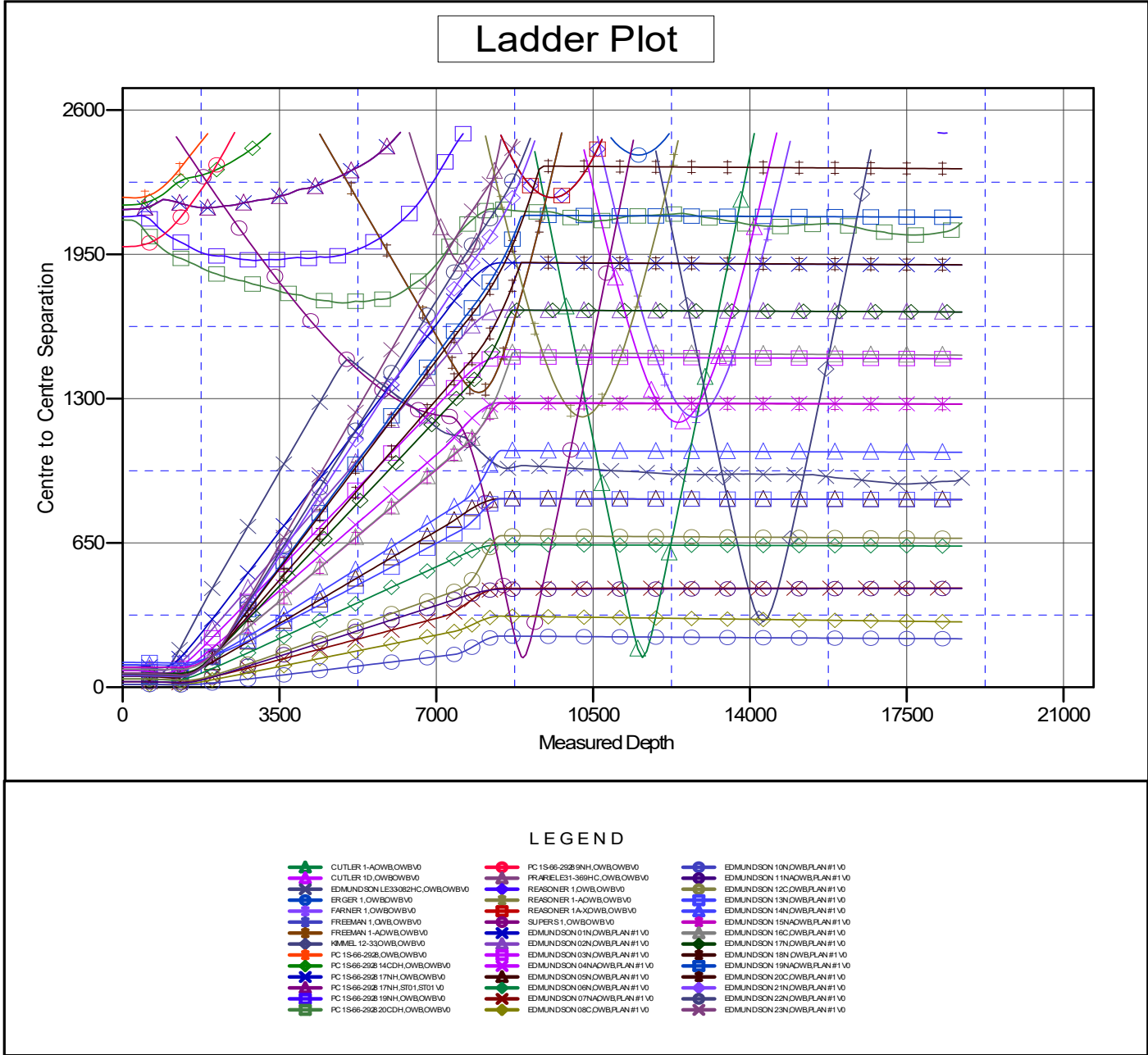
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Edmundson Pad						
Edmundson Pad						
EDMUNDSON 21N - OWB - PLAN #1	1,300.0	1,282.2	47.4	29.6	2.654	ES
EDMUNDSON 21N - OWB - PLAN #1	1,400.0	1,380.5	49.5	30.7	2.638	SF
EDMUNDSON 22N - OWB - PLAN #1	1,303.2	1,285.3	49.9	32.5	2.862	CC, ES
EDMUNDSON 22N - OWB - PLAN #1	1,400.0	1,380.4	51.5	33.1	2.798	SF
EDMUNDSON 23N - OWB - PLAN #1	1,316.7	1,298.5	54.8	38.1	3.285	CC, ES
EDMUNDSON 23N - OWB - PLAN #1	1,400.0	1,380.3	55.9	38.3	3.173	SF

PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 09N
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 09N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25 @ 5077.0usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: EDMUNDSON 09N
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.45°



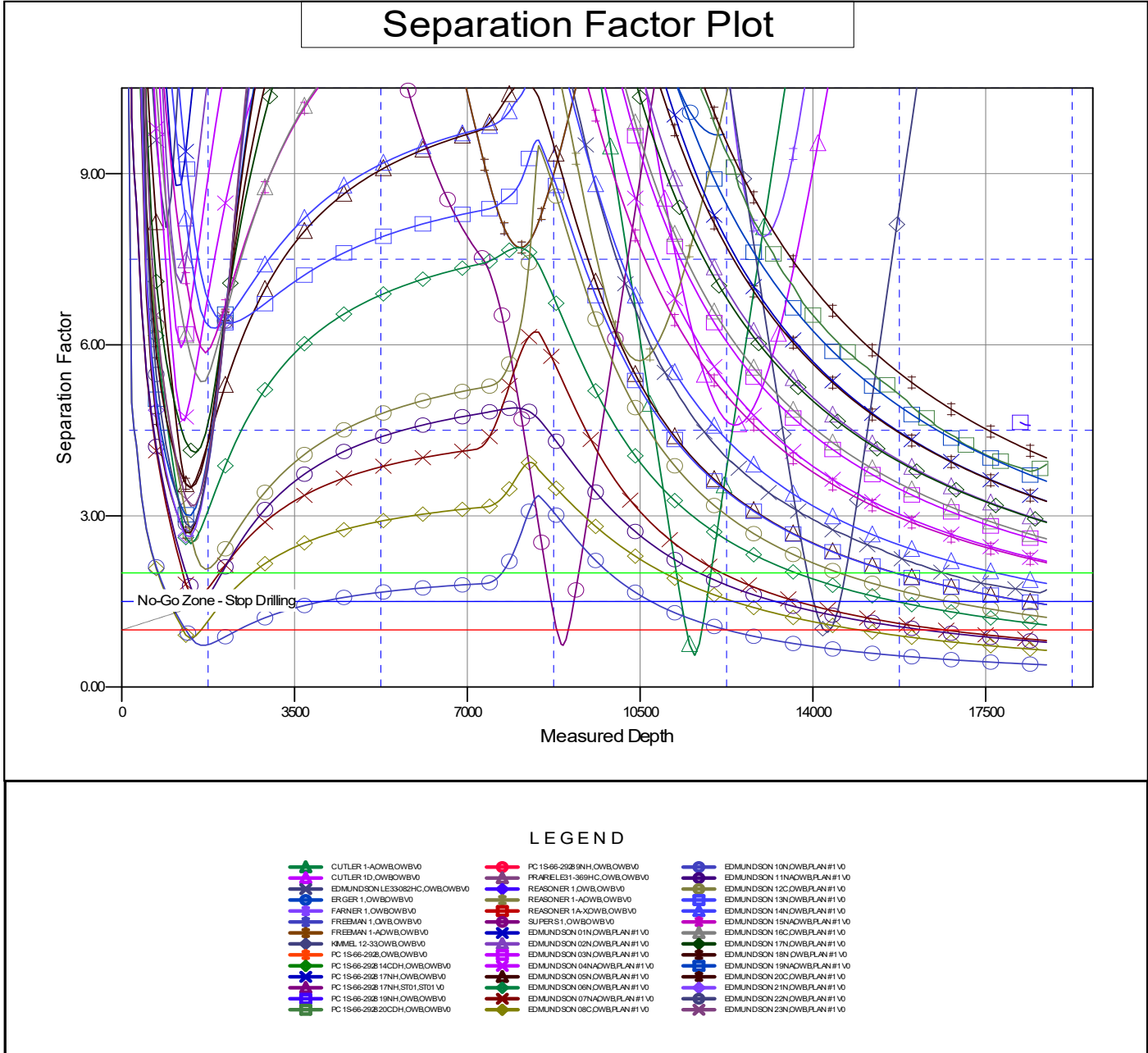
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 09N
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 09N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25 @ 5077.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: EDMUNDSON 09N
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.45°



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