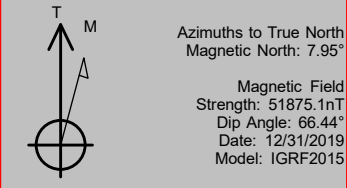


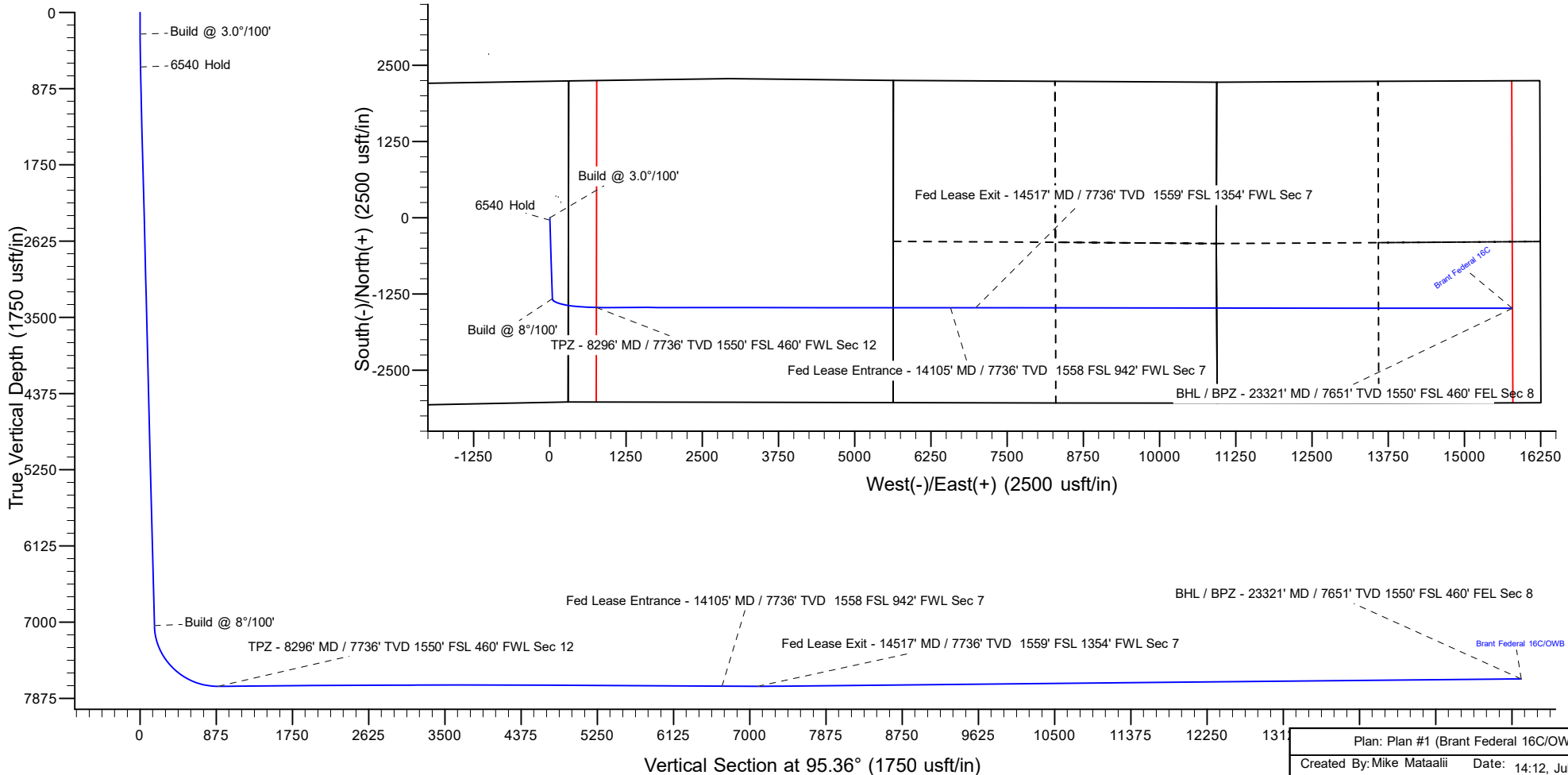


Project: ADAMS COUNTY  
 Site: Brant  
 Well: Brant Federal 16C  
 Wellbore: OWB  
 Design: Plan #1  
 Lat: 39° 58' 50.370 N  
 Long: 104° 50' 52.200 W  
 GL: 4973.0  
 KB: KB 20' @ 4993.0usft



WELL DETAILS: Brant Federal 16C						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1236473.21	3182757.00	39° 58' 50.370 N	104° 50' 52.200 W	

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 @ 3.0°/100'
629.2	11.38	178.25	626.8	-37.5	1.1	3.00	178.25	4.6	6540 Hold
7169.5	11.38	178.25	7038.5	-1327.1	40.5	0.00	0.00	164.4	Build @ 8°/100'
8296.9	90.55	90.05	7736.0	-1469.4	763.3	8.00	-88.13	897.3	TPZ - 8296' MD / 7736' TVD 1550' FSL 460' FWL Sec 12
14105.7	89.45	90.05	7736.0	-1474.5	6572.1	0.02	-179.84	6681.1	Fed Lease Entrance - 14105' MD / 7736' TVD 1558 FSL 942' FWL Sec 7
14517.0	90.55	90.05	7736.0	-1474.9	6983.3	0.27	0.07	7090.6	Fed Lease Exit - 14517' MD / 7736' TVD 1559' FSL 1354' FWL Sec 7
23321.6	90.55	90.05	7651.0	-1482.6	15787.5	0.00	0.00	15857.0	BHL / BPZ - 23321' MD / 7651' TVD 1550' FSL 460' FEL Sec 8



**PDC Energy Inc.**  
Anticollision Summary Report

<b>Company:</b>	GWP - PLANNING DB	<b>Local Co-ordinate Reference:</b>	Well Brant Federal 16C
<b>Project:</b>	ADAMS COUNTY	<b>TVD Reference:</b>	KB 20' @ 4993.0usft
<b>Reference Site:</b>	Brant	<b>MD Reference:</b>	KB 20' @ 4993.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Brant Federal 16C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDM 5000.15 Single User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	7/26/2022		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	23,321.6	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
Brant						
Brant Federal 20NA - OWB - Plan #1	3,982.0	4,067.1	7.3	-21.6	0.253	No-Go Zone - Stop Drilling, (
Brant Federal 20NA - OWB - Plan #1	4,000.0	4,084.3	9.1	-22.3	0.290	No-Go Zone - Stop Drilling, E
Brant Federal 13NA - OWB - OWB	157.1	157.1	44.9	42.8	21.840	CC
Brant Federal 13NA - OWB - OWB	250.0	249.9	45.0	42.1	15.393	ES
Brant Federal 13NA - OWB - OWB	600.0	597.6	71.2	63.1	8.741	SF
Brant Federal 13NA - OWB - Plan #1	157.1	157.1	44.9	42.8	21.840	CC
Brant Federal 13NA - OWB - Plan #1	250.0	249.9	45.0	42.1	15.393	ES
Brant Federal 13NA - OWB - Plan #1	23,321.6	22,806.7	932.3	169.1	1.222	Collision Avoidance Req., SF
Brant Federal 14N - OWB - OWB	263.2	263.3	29.2	26.2	9.644	CC
Brant Federal 14N - OWB - OWB	300.0	300.1	29.4	26.2	9.054	ES
Brant Federal 14N - OWB - OWB	500.0	498.7	42.7	35.8	6.163	SF
Brant Federal 14N - OWB - Plan #1	263.2	263.3	29.2	26.2	9.644	CC
Brant Federal 14N - OWB - Plan #1	23,321.6	23,115.8	580.9	-232.5	0.714	No-Go Zone - Stop Drilling, E
Brant Federal 15NA - OWB - OWB	260.6	260.6	13.5	10.4	4.417	CC, ES
Brant Federal 15NA - OWB - OWB	400.0	399.8	17.5	12.5	3.489	SF
Brant Federal 15NA - OWB - Plan #1	260.6	260.6	13.5	10.4	4.417	CC
Brant Federal 15NA - OWB - Plan #1	23,321.6	22,892.6	492.3	-23.9	0.954	No-Go Zone - Stop Drilling, E
Brant Federal 17N - OWB - OWB	456.9	456.6	13.8	9.4	3.157	CC, ES
Brant Federal 17N - OWB - OWB	500.0	499.4	14.8	9.5	2.756	SF
Brant Federal 17N - OWB - Plan #1	5,399.1	5,464.9	7.1	-31.8	0.183	No-Go Zone - Stop Drilling, (
Brant Federal 17N - OWB - Plan #1	5,400.0	5,465.8	7.1	-31.8	0.183	No-Go Zone - Stop Drilling, (
Brant Federal 17N - OWB - Plan #1	23,321.6	23,218.3	382.0	-276.5	0.580	No-Go Zone - Stop Drilling, E
Brant Federal 18C - OWB - Plan #1	1,339.4	1,341.9	23.2	13.1	2.302	CC
Brant Federal 18C - OWB - Plan #1	23,321.6	23,457.1	559.8	-291.7	0.657	No-Go Zone - Stop Drilling, E
Brant Federal 19N - OWB - Plan #1	637.5	632.1	44.6	35.8	5.086	CC
Brant Federal 19N - OWB - Plan #1	23,321.6	23,381.0	853.9	11.4	1.014	Collision Avoidance Req., ES
Brant Federal 21C - OWB - OWB	633.8	630.5	60.0	54.7	11.303	CC, ES
Brant Federal 21C - OWB - OWB	900.0	890.2	82.5	73.8	9.515	SF
Brant Federal 21C - OWB - Plan #1	3,990.9	4,083.0	38.5	8.9	1.300	Collision Avoidance Req., CC
Brant Federal 21C - OWB - Plan #1	4,000.0	4,091.6	38.6	8.7	1.292	Collision Avoidance Req., ES

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

**PDC Energy Inc.**  
Anticollision Summary Report

<b>Company:</b>	GWP - PLANNING DB	<b>Local Co-ordinate Reference:</b>	Well Brant Federal 16C
<b>Project:</b>	ADAMS COUNTY	<b>TVD Reference:</b>	KB 20' @ 4993.0usft
<b>Reference Site:</b>	Brant	<b>MD Reference:</b>	KB 20' @ 4993.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Brant Federal 16C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDM 5000.15 Single User Db
<b>Reference Design:</b>	Plan #1	<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
<b>Offset Well - Wellbore - Design</b>						
Brant Offsets						
Brant LE 08-039HC - OH - OH	159.4	159.4	117.8	116.0	63.783	CC
Brant LE 08-039HC - OH - OH	250.7	250.8	117.8	115.1	43.096	ES
Brant LE 08-039HC - OH - OH	21,000.0	20,878.0	3,224.6	2,514.1	4.538	SF
Brant LE 08-039HC - ST 01 - ST 01	159.4	159.4	117.8	116.0	63.783	CC
Brant LE 08-039HC - ST 01 - ST 01	250.7	250.8	117.8	115.1	43.096	ES
Brant LE 08-039HC - ST 01 - ST 01	23,321.6	23,441.4	3,218.4	2,375.4	3.818	SF
Brant LE 08-039HN - OH - OH	0.0	0.0	129.8			
Brant LE 08-039HN - OH - OH	250.0	249.6	130.9	128.0	46.097	ES
Brant LE 08-039HN - OH - OH	23,321.6	23,166.4	3,255.9	2,417.4	3.883	SF
Brant LE 08-042HN - OH - OH	0.0	0.0	95.7			
Brant LE 08-042HN - OH - OH	256.2	256.5	96.4	93.7	34.664	ES
Brant LE 08-042HN - OH - OH	23,321.6	23,127.0	2,873.2	2,034.9	3.428	SF
Brant LE 08-042HNN - OH - OH	0.0	0.0	106.0			
Brant LE 08-042HNN - OH - OH	250.0	250.0	106.1	103.4	39.011	ES
Brant LE 08-042HNN - OH - OH	23,321.6	23,061.6	3,007.2	2,170.4	3.594	SF
Brant LE 08-082HC - OH - OH	258.1	258.5	80.8	77.9	28.083	CC, ES
Brant LE 08-082HC - OH - OH	23,321.6	23,292.4	2,495.5	1,651.6	2.957	SF
Brant LE 08-082HN - OH - OH	188.7	188.7	87.5	85.2	38.027	CC
Brant LE 08-082HN - OH - OH	250.0	249.8	87.6	84.8	31.437	ES
Brant LE 08-082HN - OH - OH	23,321.6	22,997.8	2,615.6	1,777.9	3.122	SF
Brant LE 08-119HN - OH - OH	126.5	126.5	75.1	73.8	56.068	CC
Brant LE 08-119HN - OH - OH	256.1	256.3	75.2	72.4	27.229	ES
Brant LE 08-119HN - OH - OH	23,321.6	23,040.0	2,130.3	1,289.1	2.532	SF
Brant LE 08-119HNN - OH - OH	0.0	0.0	76.9			
Brant LE 08-119HNN - OH - OH	250.0	249.9	78.9	76.0	27.948	ES
Brant LE 08-119HNN - OH - OH	23,321.6	22,840.8	2,265.9	1,437.4	2.735	SF
Brant LE 08-159HC - OH - OH	0.0	0.0	81.1			
Brant LE 08-159HC - OH - OH	300.0	300.1	81.8	78.8	26.502	ES
Brant LE 08-159HC - OH - OH	23,321.6	23,212.0	1,773.0	926.7	2.095	SF
Brant LE 08-159HN - OH - OH	116.8	116.8	76.7	75.5	64.826	CC
Brant LE 08-159HN - OH - OH	250.0	249.7	77.0	74.2	27.867	ES
Brant LE 08-159HN - OH - OH	23,321.6	22,863.5	1,867.4	1,030.4	2.231	SF
Brant LE 08-162HNN - OH - OH	235.4	235.4	95.1	92.4	35.260	CC
Brant LE 08-162HNN - OH - OH	300.0	299.7	95.4	92.3	30.501	ES
Brant LE 08-162HNN - OH - OH	23,321.6	22,968.0	1,375.7	537.5	1.641	Collision Risk Procedures Req., ES
BRANT LE 08-359HN - OH - OH	0.0	0.0	59.5			
BRANT LE 08-359HN - OH - OH	250.0	250.0	59.8	57.0	21.333	ES
BRANT LE 08-359HN - OH - OH	600.0	598.0	84.1	76.3	10.764	SF
BRANT LE 08-359HNN - OH - OH	270.9	271.4	74.3	71.3	25.410	CC
BRANT LE 08-359HNN - OH - OH	300.0	300.4	74.4	71.3	23.998	ES
BRANT LE 08-359HNN - OH - OH	600.0	599.7	94.3	86.5	12.193	SF
BRANT LE 08-362HC - OH - OH	185.0	185.0	89.3	87.1	40.111	CC
BRANT LE 08-362HC - OH - OH	250.0	250.0	89.3	86.6	32.282	ES
BRANT LE 08-362HC - OH - OH	5,100.0	4,989.0	1,082.3	774.6	3.518	SF
Case #1 - OH - OH	22,798.4	7,696.1	2,541.8	1,995.9	4.657	CC
Case #1 - OH - OH	22,900.0	7,695.1	2,543.8	1,995.0	4.635	ES
Case #1 - OH - OH	23,000.0	7,694.1	2,549.8	1,998.7	4.627	SF
Conner Linde & Browning #1 - OH - OH	23,321.6	7,735.0	1,522.0	1,240.6	5.409	CC, ES, SF
Marcus LD #11-361HN - OH - OH	7,728.0	18,467.1	3.3	-183.5	0.018	No-Go Zone - Stop Drilling, (
Mattive & Sons Inc #1 - OH - OH	21,680.5	7,690.8	722.1	206.4	1.400	Collision Avoidance Req., CC
Mattive & Sons Inc #1 - OH - OH	21,700.0	7,690.7	722.3	205.9	1.399	Collision Avoidance Req., ES

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

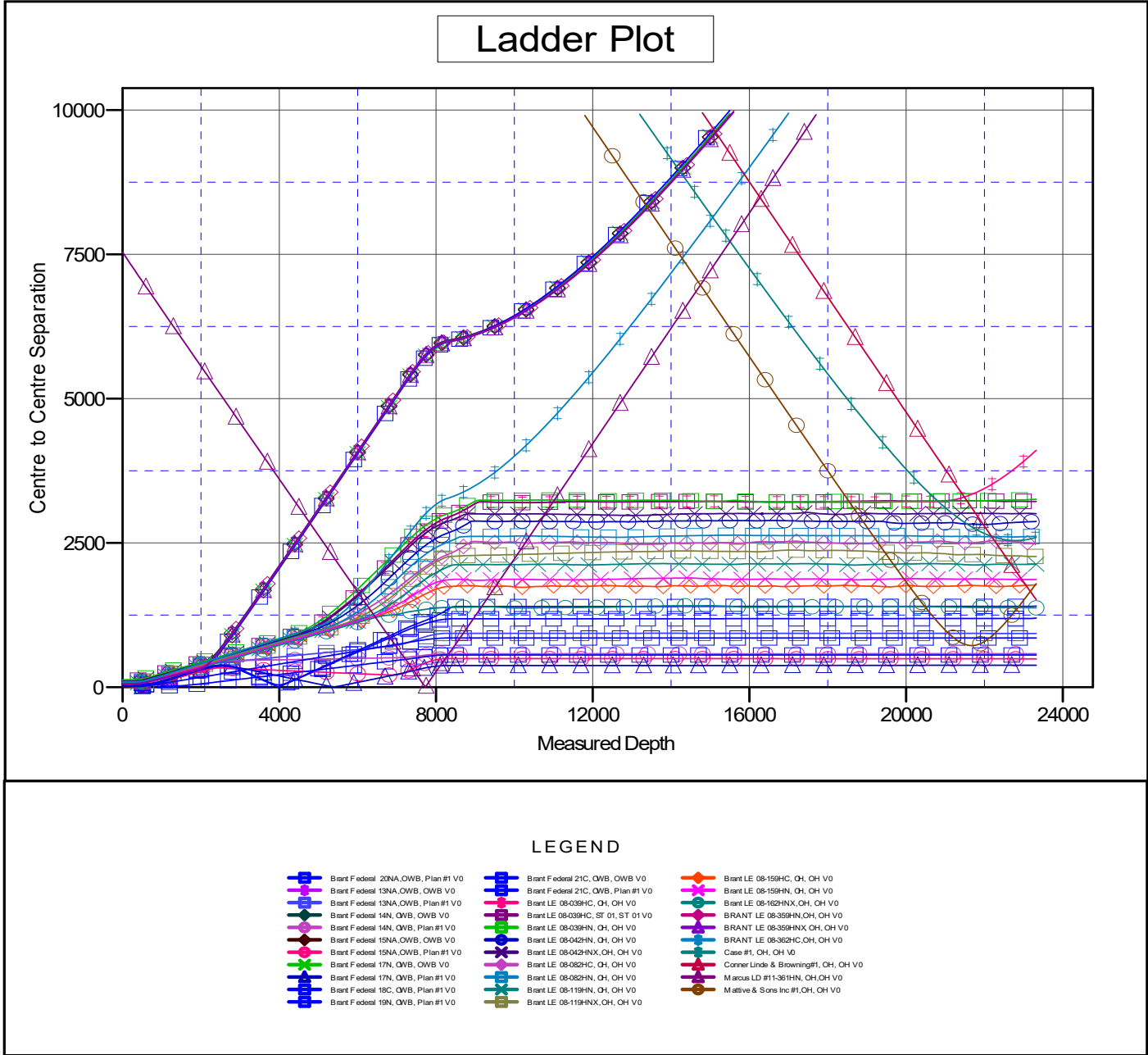
# PDC Energy Inc.

## Anticollision Summary Report

<b>Company:</b> GWP - PLANNING DB	<b>Local Co-ordinate Reference:</b> Well Brant Federal 16C
<b>Project:</b> ADAMS COUNTY	<b>TVD Reference:</b> KB 20' @ 4993.0usft
<b>Reference Site:</b> Brant	<b>MD Reference:</b> KB 20' @ 4993.0usft
<b>Site Error:</b> 0.0 usft	<b>North Reference:</b> True
<b>Reference Well:</b> Brant Federal 16C	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Well Error:</b> 0.0 usft	<b>Output errors are at:</b> 2.00 sigma
<b>Reference Wellbore:</b> OWB	<b>Database:</b> EDM 5000.15 Single User Db
<b>Reference Design:</b> Plan #1	<b>Offset TVD Reference:</b> Offset Datum

Reference Depths are relative to KB 20' @ 4993.0usft  
 Offset Depths are relative to Offset Datum  
 Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Brant Federal 16C  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.42°



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

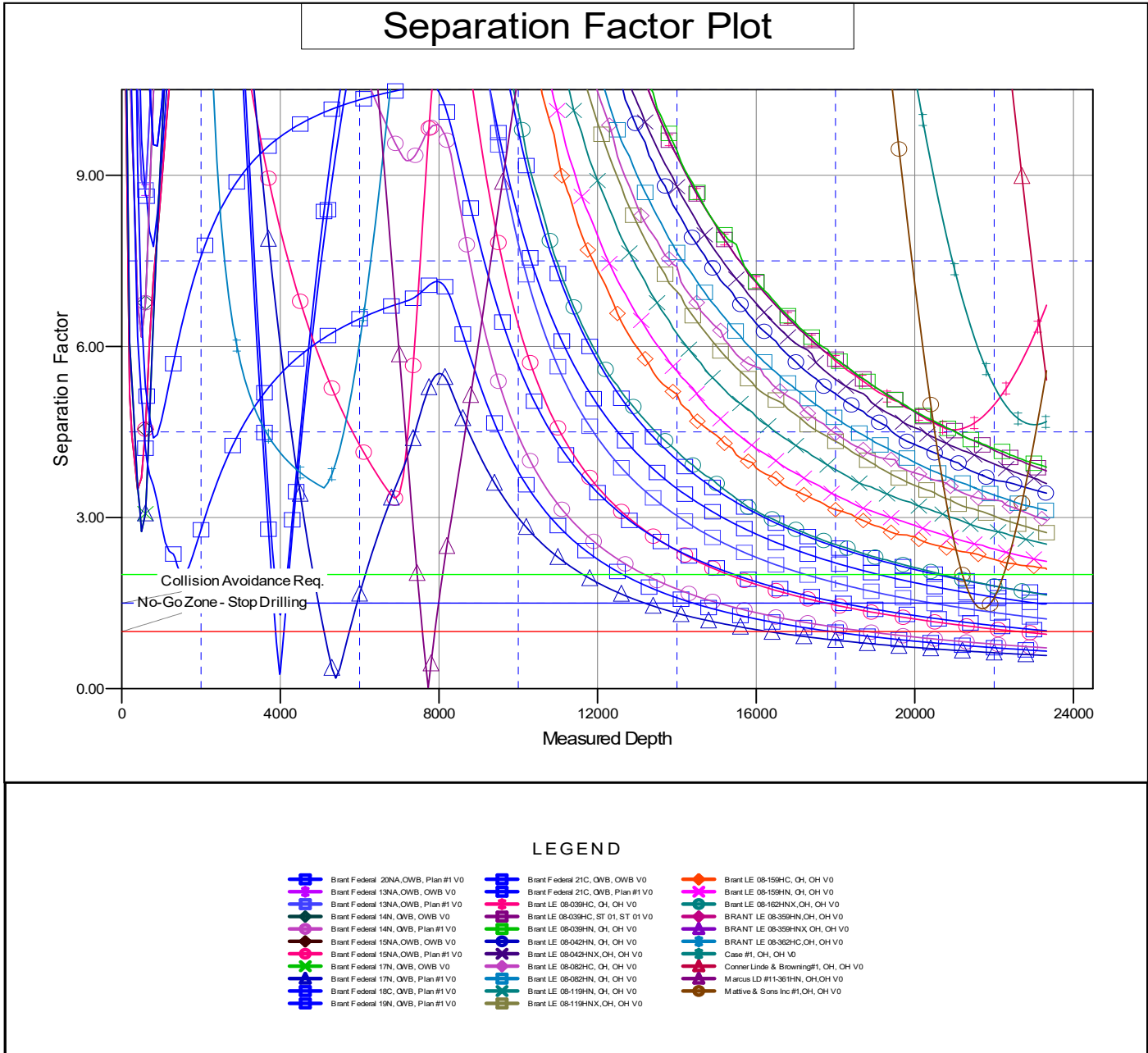
# PDC Energy Inc.

## Anticollision Summary Report

<b>Company:</b> GWP - PLANNING DB	<b>Local Co-ordinate Reference:</b> Well Brant Federal 16C
<b>Project:</b> ADAMS COUNTY	<b>TVD Reference:</b> KB 20' @ 4993.0usft
<b>Reference Site:</b> Brant	<b>MD Reference:</b> KB 20' @ 4993.0usft
<b>Site Error:</b> 0.0 usft	<b>North Reference:</b> True
<b>Reference Well:</b> Brant Federal 16C	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Well Error:</b> 0.0 usft	<b>Output errors are at:</b> 2.00 sigma
<b>Reference Wellbore:</b> OWB	<b>Database:</b> EDM 5000.15 Single User Db
<b>Reference Design:</b> Plan #1	<b>Offset TVD Reference:</b> Offset Datum

Reference Depths are relative to KB 20' @ 4993.0usft  
 Offset Depths are relative to Offset Datum  
 Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Brant Federal 16C  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.42°



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