

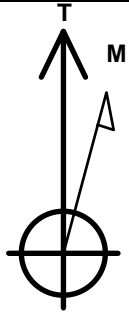
PDC Energy Inc. DJ Basin

Well Name: **Geib 26V-304**

Surface Location: Geib 5N65W26V Pad Sec.26-T5N-R65W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4641.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1380349.51 3244496.00 40.374140 -104.622450
RKB - 23' WELL @ 4664.0ft (RKB - 23')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1208'FNL & 400'FEL, Sec.26	1.0	0.0	0.0	Point
BHL 1336'FNL & 50'FWL, Sec.27	6905.0	-96.1	-10094.8	Point
LPL 1336'FNL & 441'FWL, Sec.25	6930.0	-133.3	841.8	Point



Azimuths to True North
Magnetic North: 7.96°

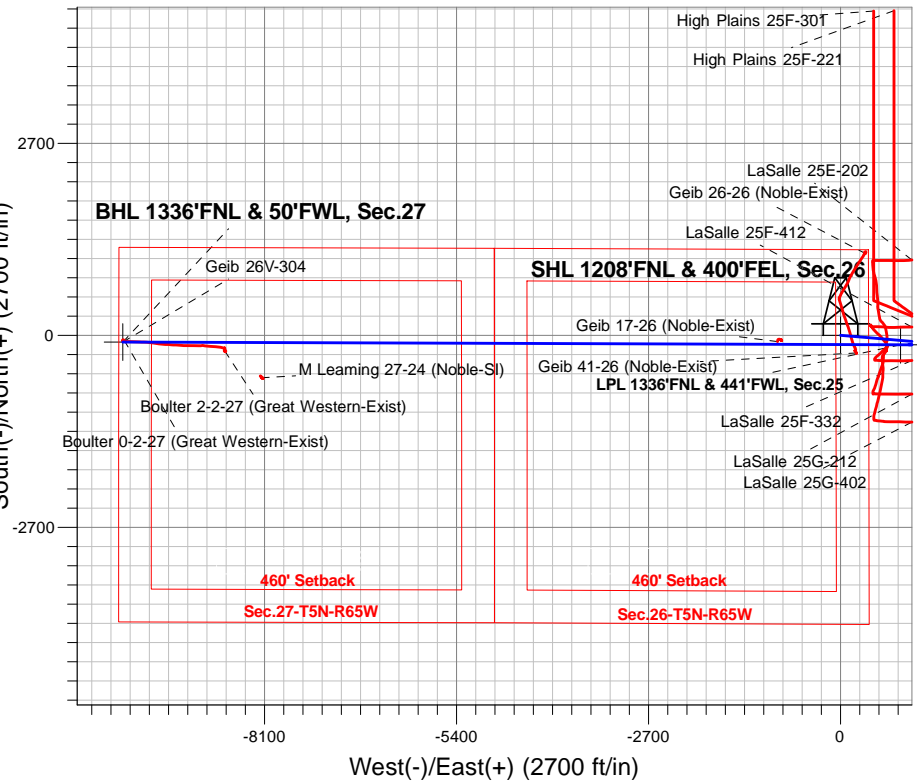
Magnetic Field
Strength: 52488.6snT
Dip Angle: 66.84°
Date: 7/31/2017
Model: IGRF2010

Geib 5N65W26V Pad Sec.26-T5N-R65W
Geib 26V-304
Plan #3 (7-31-17)
13:14, July 31 2017

ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	KOP - Start Build 1.50
5000.6	5249.4	Start Drop -2.00
6100.0	6377.7	Start 114.1 hold at 6377.7 MD
6214.1	6491.9	Start Build 8.00
6930.0	7618.0	Start DLS 0.00 TFO 39.05
6905.0	18554.6	TD at 18554.6

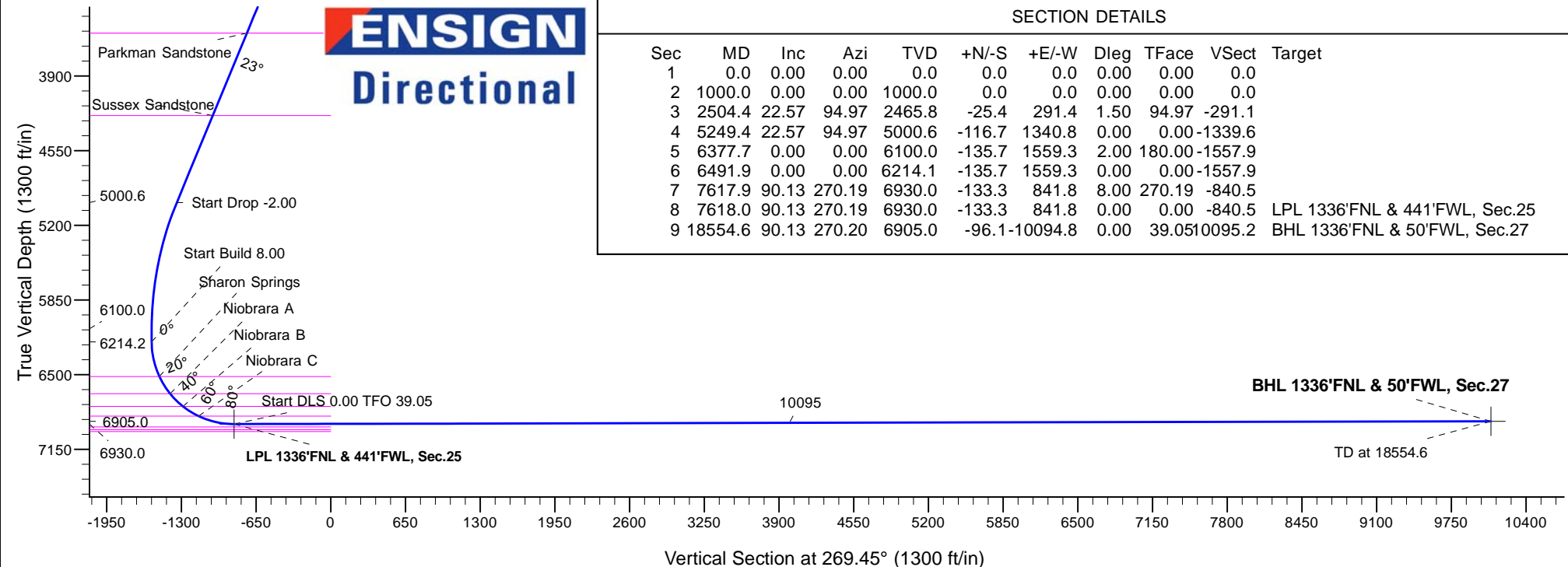
South(-)/North(+) (2700 ft/in)



West(-)/East(+) (2700 ft/in)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	2504.4	22.57	94.97	2465.8	-25.4	291.4	1.50	94.97	-291.1	
4	5249.4	22.57	94.97	5000.6	-116.7	1340.8	0.00	0.00	-1339.6	
5	6377.7	0.00	0.00	6100.0	-135.7	1559.3	2.00	180.00	-1557.9	
6	6491.9	0.00	0.00	6214.1	-135.7	1559.3	0.00	0.00	-1557.9	
7	7617.9	90.13	270.19	6930.0	-133.3	841.8	8.00	270.19	-840.5	
8	7618.0	90.13	270.19	6930.0	-133.3	841.8	0.00	0.00	-840.5	LPL 1336'FNL & 441'FWL, Sec.25
9	18554.6	90.13	270.20	6905.0	-96.1	-10094.8	0.00	39.05	10095.2	BHL 1336'FNL & 50'FWL, Sec.27





PDC Energy Inc. DJ Basin

SEC.26-T5N-R65W

Geib 5N65W26V Pad Sec.26-T5N-R65W

Geib 26V-304

Wellbore #1

Plan #3 (7-31-17)

Anticollision Summary Report

02 August, 2017

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Geib 26V-304
Project:	SEC.26-T5N-R65W	TVD Reference:	WELL @ 4664.0ft (RKB - 23')
Reference Site:	Geib 5N65W26V Pad Sec.26-T5N-R65W	MD Reference:	WELL @ 4664.0ft (RKB - 23')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Geib 26V-304	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (7-31-17)	Offset TVD Reference:	Offset Datum

Reference	Plan #3 (7-31-17)		
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 800.0 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.45 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	7/31/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	18,554.6	Plan #3 (7-31-17) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Existing Wells Sec.25-T5N-R65W						
Leroy & Phillis 5 (PDC-Exist) - Wellbore #1 - Wellbore #1	6,491.9	6,194.5	99.9	44.3	1.797	ES, SF
Leroy & Phillis 5 (PDC-Exist) - Wellbore #1 - Wellbore #1	6,506.6	6,209.2	99.8	55.2	2.240	CC
Existing Wells Sec.26-T5N-R65W						
Geib 26-26 (Noble-Exist) - Wellbore #1 - Wellbore #1	100.0	75.5	521.5	521.3	2,001.748	CC
Geib 26-26 (Noble-Exist) - Wellbore #1 - Wellbore #1	200.0	173.6	522.0	521.2	641.606	ES
Geib 26-26 (Noble-Exist) - Wellbore #1 - Wellbore #1	1,700.0	1,481.1	777.2	767.7	82.435	SF
Geib 41-26 (Noble-Exist) - Wellbore #1 - Wellbore #1	8,238.9	7,010.5	119.1	47.6	1.665	CC, ES, SF
Existing Wells Sec.26-T5N-R65W (GRID)						
Geib 17-26 (Noble-Exist) - Wellbore #1 - Wellbore #1	9,347.4	6,907.8	50.0	-47.9	0.510	Level 1, CC, ES, SF
Existing Wells Sec.27-T5N-R65W (GRID)						
Boulter 0-2-27 (Great Western-Exist) - Wellbore #1 - We	18,539.4	7,123.1	27.5	-399.2	0.064	Level 1, CC, ES, SF
Boulter 2-2-27 (Great Western-Exist) - Wellbore #1 - We	17,123.3	6,915.8	120.8	-236.6	0.338	Level 1, CC, ES, SF
M Leaming 27-24 (Noble-SI) - Wellbore #1 - Wellbore #1	16,604.3	6,900.2	495.0	154.9	1.456	Level 3, CC, ES, SF
Geib 5N65W26V Pad Sec.26-T5N-R65W						
Geib 26U-134 - Wellbore #1 - Plan #3 (7-31-17)	400.0	400.0	43.7	41.8	22.682	CC, ES
Geib 26U-134 - Wellbore #1 - Plan #3 (7-31-17)	800.0	795.4	60.1	56.0	14.565	SF
Geib 26U-304 - Wellbore #1 - Plan #3 (7-31-17)	200.0	200.0	58.3	57.5	70.567	CC, ES
Geib 26U-304 - Wellbore #1 - Plan #3 (7-31-17)	800.0	786.9	102.9	98.6	23.947	SF
Geib 26V-214 - Wellbore #1 - Plan #3 (7-31-17)	800.0	800.0	14.6	10.4	3.528	CC
Geib 26V-214 - Wellbore #1 - Plan #3 (7-31-17)	18,554.6	16,980.6	318.1	-305.5	0.510	Level 1, ES, SF
Geib 26V-234 - Wellbore #1 - Plan #3 (7-31-17)	800.0	800.0	14.6	10.4	3.528	CC
Geib 26V-234 - Wellbore #1 - Plan #3 (7-31-17)	18,554.6	17,074.6	324.2	-304.8	0.515	Level 1, ES, SF
Geib 26V-314 - Wellbore #1 - Plan #3 (7-31-17)	600.0	600.0	29.1	26.1	9.623	CC
Geib 26V-314 - Wellbore #1 - Plan #3 (7-31-17)	18,554.6	18,890.7	495.5	-293.5	0.628	Level 1, ES, SF
Geib 26V-334 - Wellbore #1 - Plan #4 (7-31-17)	600.0	600.0	32.8	29.8	10.826	CC
Geib 26V-334 - Wellbore #1 - Plan #4 (7-31-17)	18,554.6	18,916.1	550.2	-239.6	0.697	Level 1, ES, SF
Geib 26W-214 - Wellbore #1 - Plan #3 (7-31-17)	400.0	400.0	47.4	45.4	24.573	CC, ES
Geib 26W-214 - Wellbore #1 - Plan #3 (7-31-17)	5,200.0	5,072.3	793.9	726.4	11.759	SF
Geib 26W-304 - Wellbore #1 - Plan #3 (7-31-17)	200.0	200.0	61.9	61.1	74.978	CC, ES
Geib 26W-304 - Wellbore #1 - Plan #3 (7-31-17)	3,400.0	3,260.3	742.4	711.7	24.169	SF

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

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Site Error:	0.0 ft	North Reference:	True
Reference Well:	Geib 26V-304	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (7-31-17)	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
High Plains 5N65W25AF Pad Sec.25-T5N-R65W						
High Plains 25A-341 - Wellbore #1 - Plan #1 (2-03-17)	4,126.1	3,933.1	548.3	511.7	14.994	CC
High Plains 25A-341 - Wellbore #1 - Plan #1 (2-03-17)	4,200.0	4,000.0	549.2	511.6	14.612	ES
High Plains 25A-341 - Wellbore #1 - Plan #1 (2-03-17)	4,800.0	4,597.9	601.7	558.1	13.794	SF
High Plains 25A-401 - Wellbore #1 - Plan #1 (2-03-17)	5,399.0	5,105.8	610.9	558.4	11.646	CC
High Plains 25A-401 - Wellbore #1 - Plan #1 (2-03-17)	5,500.0	5,204.5	611.9	558.0	11.346	ES
High Plains 25A-401 - Wellbore #1 - Plan #1 (2-03-17)	6,500.0	6,271.7	655.2	593.7	10.652	SF
High Plains 25F-221 - Wellbore #1 - Plan #1 (2-03-17)	3,756.0	3,616.2	477.9	444.0	14.088	CC
High Plains 25F-221 - Wellbore #1 - Plan #1 (2-03-17)	3,800.0	3,654.9	478.4	443.9	13.866	ES
High Plains 25F-221 - Wellbore #1 - Plan #1 (2-03-17)	4,000.0	3,830.7	491.9	455.2	13.393	SF
High Plains 25F-301 - Wellbore #1 - Plan #1 (2-03-17)	3,537.7	3,433.7	433.2	400.3	13.160	CC, ES
High Plains 25F-301 - Wellbore #1 - Plan #1 (2-03-17)	3,700.0	3,573.5	441.0	406.2	12.668	SF
LaSalle 25F-HZ Pad Sec.25-T5N-R65W						
LaSalle 25E-202 - Wellbore #1 - Wellbore #1	2,575.3	2,494.5	417.0	397.7	21.664	CC
LaSalle 25E-202 - Wellbore #1 - Wellbore #1	2,600.0	2,516.1	417.1	397.6	21.363	ES
LaSalle 25E-202 - Wellbore #1 - Wellbore #1	2,900.0	2,779.0	446.0	423.3	19.629	SF
LaSalle 25F-332 - Wellbore #1 - Wellbore #1	3,418.7	3,296.6	110.8	84.2	4.174	CC, ES
LaSalle 25F-332 - Wellbore #1 - Wellbore #1	7,300.0	7,250.7	219.1	153.9	3.360	SF
LaSalle 25F-412 - Wellbore #1 - Wellbore #1	2,992.5	2,914.9	86.5	64.0	3.849	CC
LaSalle 25F-412 - Wellbore #1 - Wellbore #1	3,000.0	2,921.5	86.6	64.0	3.834	ES, SF
LaSalle 25G-212 - Wellbore #1 - Wellbore #1	2,860.8	2,739.8	448.6	428.6	22.411	CC
LaSalle 25G-212 - Wellbore #1 - Wellbore #1	2,900.0	2,773.6	449.0	428.5	21.846	ES
LaSalle 25G-212 - Wellbore #1 - Wellbore #1	6,950.0	7,465.1	716.4	644.4	9.941	SF
LaSalle 25G-402 - Wellbore #1 - Wellbore #1	2,666.3	2,521.2	598.4	580.2	32.959	CC
LaSalle 25G-402 - Wellbore #1 - Wellbore #1	2,700.0	2,552.3	598.5	580.0	32.257	ES
LaSalle 25G-402 - Wellbore #1 - Wellbore #1	3,900.0	3,652.5	783.2	749.9	23.550	SF

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Reference Design:	Plan #3 (7-31-17)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4664.0ft (RKB - 23')

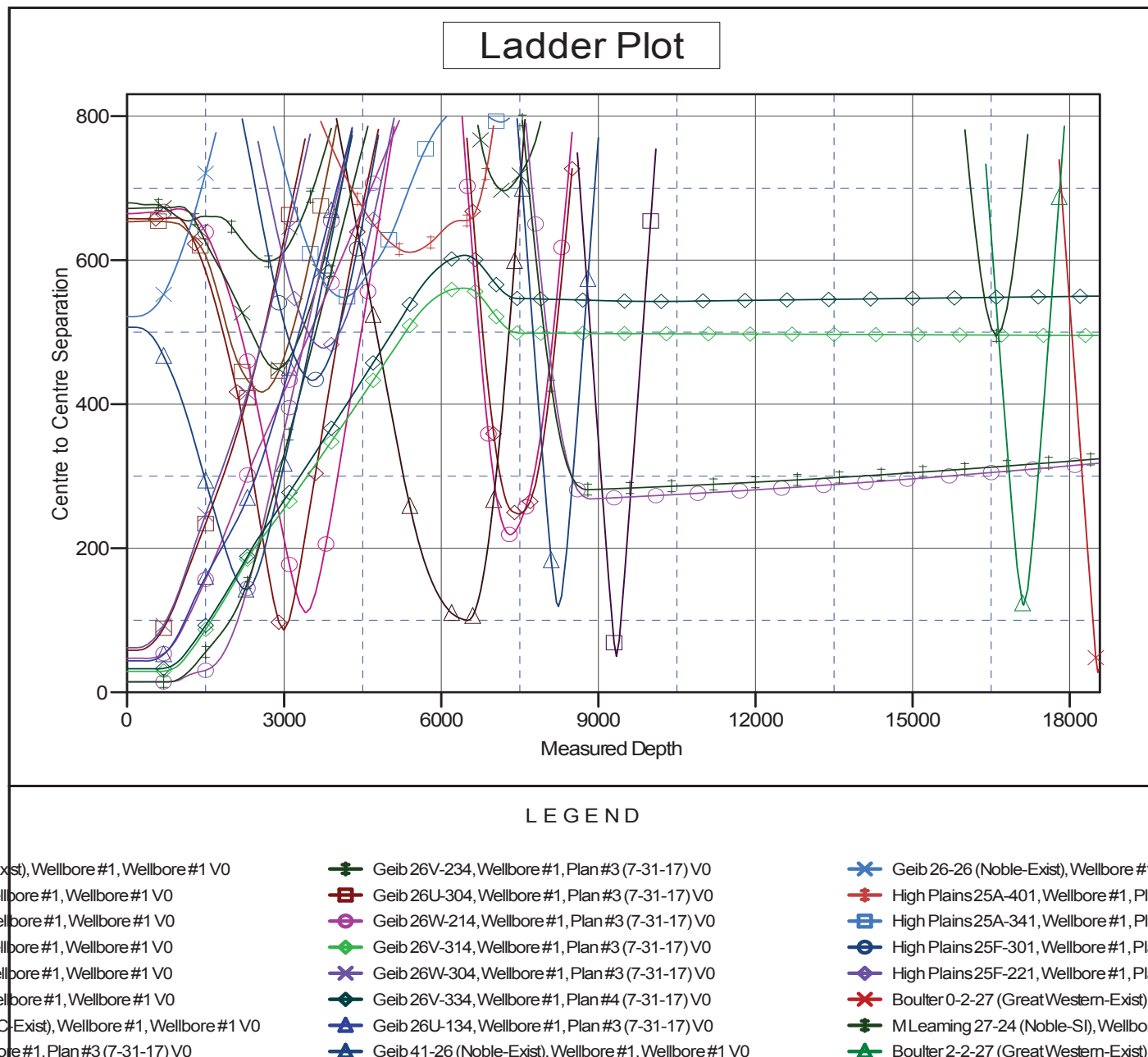
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Geib 26V-304

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.57°



Reference Depths are relative to WELL @ 4664.0ft (RKB - 23')	Coordinates are relative to: Geib 26V-304
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
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