



SHELL E&P

MOFFAT COUNTY, CO

HAMILTON 1-29

HAMILTON 1-29

HAMILTON 1-29

Plan: PLAN 5R1

Standard Planning Report

07 JULY, 2013





Project: MOFFAT COUNTY, CO
 Site: HAMILTON PAD
 Well: HAMILTON 1-29
 Wellbore: HAMILTON 1-29
 Design: Design #5R1
 Latitude: 40° 21' 16.270 N
 Longitude: 107° 37' 16.950 W
 GL: 6343.00
 KB: KB @ 6354.00ft (KB)



WELLBORE TARGET DETAILS (LAT/LONG)

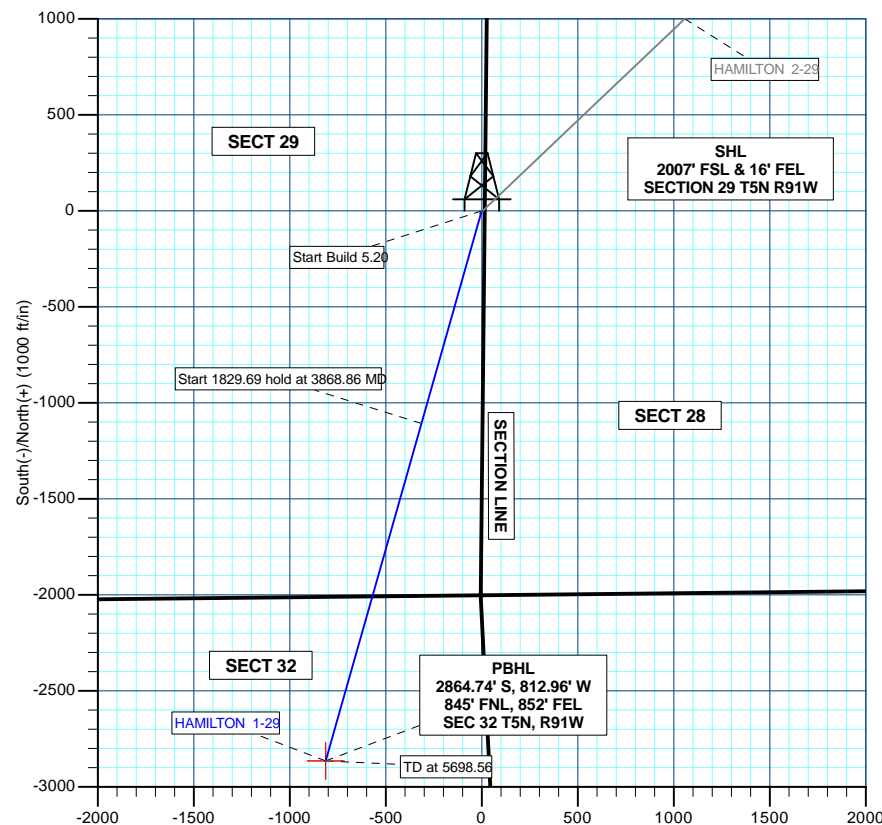
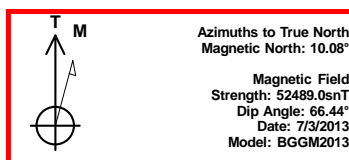
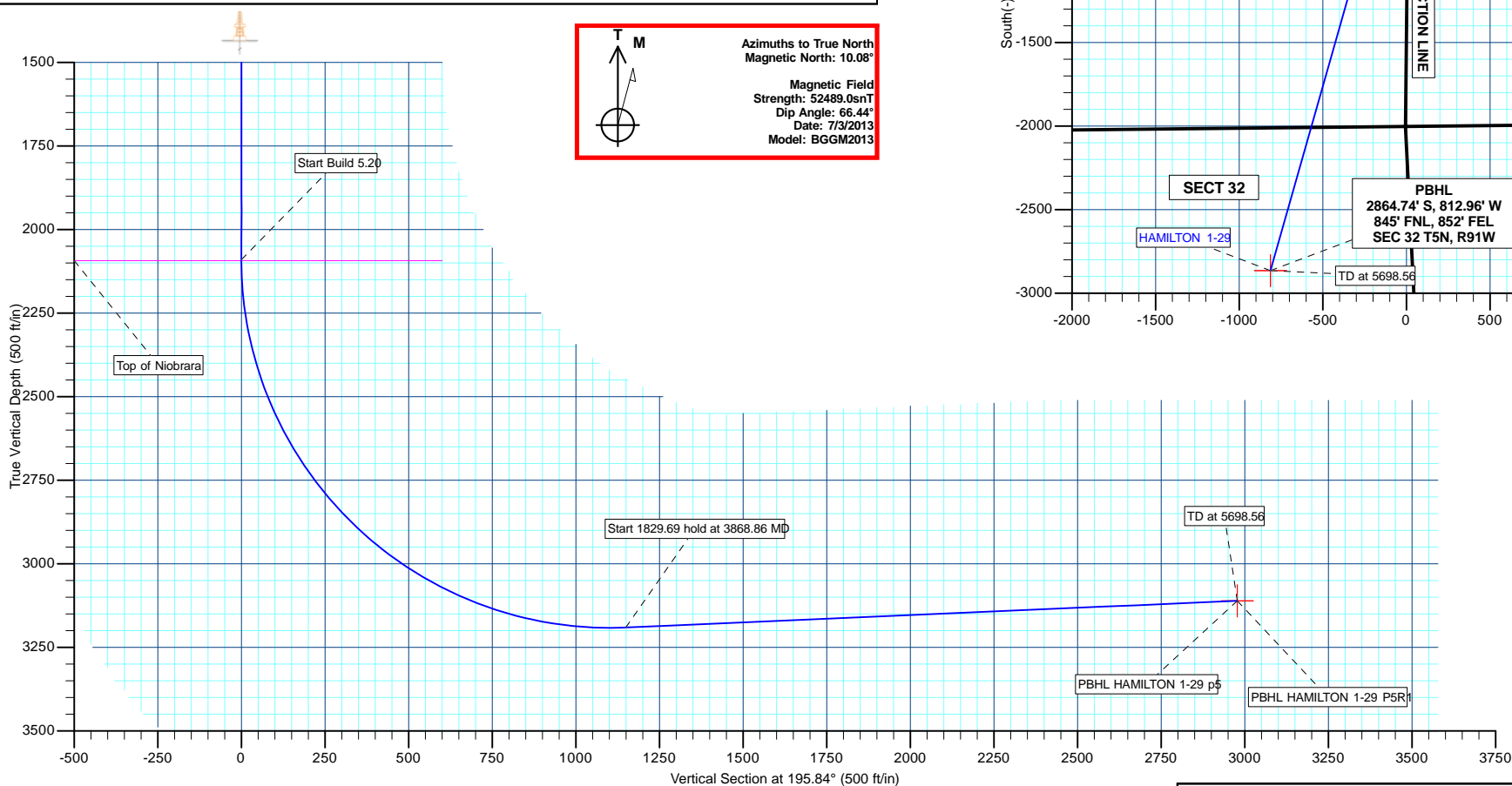
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
PBHL HAMILTON 1-29 P5R1	3111.00	-2864.74	-812.96	40° 20' 47.960 N	107° 37' 27.450 W	

WELL DETAILS: HAMILTON 1-29

+N/-S	+E/-W	Northing	Ground Level: Easting	6343.00 Latitude	Longitude	Slot
0.00	0.00	1379063.61	2408835.12	40° 21' 16.270 N	107° 37' 16.950 W	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2090.01	0.00	0.00	2090.01	0.00	0.00	0.00	0.00	0.00	Start Build 5.20
3868.86	92.50	195.84	3190.81	-1106.22	-313.93	5.20	195.84	1149.91	Start 1829.69 hold at 3868.86 MD
5698.56	92.50	195.84	3111.00	-2864.74	-812.96	0.00	0.00	2977.86	TD at 5698.56





SHELL E&P

**MOFFAT COUNTY, CO
HAMILTON PAD
HAMILTON 1-29**

HAMILTON 1-29

Plan: Design #5R1

Standard Planning Report

07 July, 2013



Weatherford®



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well HAMILTON 1-29
Company:	SHELL E&P	TVD Reference:	KB @ 6354.00ft (KB)
Project:	MOFFAT COUNTY, CO	MD Reference:	KB @ 6354.00ft (KB)
Site:	HAMILTON PAD	North Reference:	True
Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	HAMILTON 1-29		
Design:	Design #5R1		

Project	MOFFAT COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	HAMILTON PAD				
Site Position:		Northing:	1,379,063.61 usft	Latitude:	40° 21' 16.270 N
From:	Lat/Long	Easting:	2,408,835.12 usft	Longitude:	107° 37' 16.950 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"	Grid Convergence:	-1.37 °

Well	HAMILTON 1-29					
Well Position	+N/-S	0.00 ft	Northing:	1,379,063.61 usft	Latitude:	40° 21' 16.270 N
	+E/-W	0.00 ft	Easting:	2,408,835.12 usft	Longitude:	107° 37' 16.950 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,343.00 ft

Wellbore	HAMILTON 1-29				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	7/3/2013	10.08	66.44	52,489

Design	Design #5R1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	195.84

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,090.01	0.00	0.00	2,090.01	0.00	0.00	0.00	0.00	0.00	0.00	
3,868.86	92.50	195.84	3,190.81	-1,106.22	-313.93	5.20	5.20	0.00	195.84	
5,698.56	92.50	195.84	3,111.00	-2,864.74	-812.96	0.00	0.00	0.00	0.00	PBHL HAMILTON 1-2



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well HAMILTON 1-29
Company:	SHELL E&P	TVD Reference:	KB @ 6354.00ft (KB)
Project:	MOFFAT COUNTY, CO	MD Reference:	KB @ 6354.00ft (KB)
Site:	HAMILTON PAD	North Reference:	True
Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	HAMILTON 1-29		
Design:	Design #5R1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 5.20									
2,090.01	0.00	0.00	2,090.01	0.00	0.00	0.00	0.00	0.00	0.00
Top of Niobrara									
2,093.00	0.16	195.84	2,093.00	0.00	0.00	0.00	5.20	5.20	0.00
2,100.00	0.52	195.84	2,100.00	-0.04	-0.01	0.05	5.20	5.20	0.00
2,200.00	5.72	195.84	2,199.82	-5.28	-1.50	5.48	5.20	5.20	0.00
2,300.00	10.92	195.84	2,298.73	-19.19	-5.45	19.95	5.20	5.20	0.00
PBHL HAMILTON 1-29									
2,397.34	15.98	195.84	2,393.37	-40.96	-11.62	42.58	5.20	5.20	0.00
2,400.00	16.12	195.84	2,395.93	-41.67	-11.83	43.32	5.20	5.20	0.00
2,500.00	21.32	195.84	2,490.60	-72.54	-20.58	75.40	5.20	5.20	0.00
2,600.00	26.52	195.84	2,581.99	-111.53	-31.65	115.93	5.20	5.20	0.00
2,700.00	31.72	195.84	2,669.32	-158.32	-44.93	164.58	5.20	5.20	0.00
2,800.00	36.92	195.84	2,751.88	-212.54	-60.32	220.94	5.20	5.20	0.00
2,900.00	42.12	195.84	2,828.99	-273.74	-77.68	284.55	5.20	5.20	0.00
3,000.00	47.32	195.84	2,900.03	-341.41	-96.89	354.89	5.20	5.20	0.00
3,100.00	52.52	195.84	2,964.39	-414.99	-117.77	431.38	5.20	5.20	0.00
3,200.00	57.72	195.84	3,021.56	-493.88	-140.15	513.38	5.20	5.20	0.00
3,300.00	62.92	195.84	3,071.06	-577.43	-163.86	600.23	5.20	5.20	0.00
3,400.00	68.12	195.84	3,112.48	-664.95	-188.70	691.21	5.20	5.20	0.00
3,500.00	73.32	195.84	3,145.49	-755.73	-214.46	785.57	5.20	5.20	0.00
3,600.00	78.52	195.84	3,169.81	-849.01	-240.93	882.53	5.20	5.20	0.00
3,700.00	83.72	195.84	3,185.24	-944.02	-267.90	981.30	5.20	5.20	0.00
3,800.00	88.92	195.84	3,191.66	-1,039.99	-295.13	1,081.06	5.20	5.20	0.00
Start 1829.69 hold at 3868.86 MD									
3,868.86	92.50	195.84	3,190.81	-1,106.22	-313.93	1,149.91	5.20	5.20	0.00
3,900.00	92.50	195.84	3,189.45	-1,136.15	-322.42	1,181.01	0.00	0.00	0.00
4,000.00	92.50	195.84	3,185.09	-1,232.26	-349.69	1,280.92	0.00	0.00	0.00
4,100.00	92.50	195.84	3,180.73	-1,328.37	-376.97	1,380.82	0.00	0.00	0.00
4,200.00	92.50	195.84	3,176.37	-1,424.48	-404.24	1,480.73	0.00	0.00	0.00
4,300.00	92.50	195.84	3,172.00	-1,520.59	-431.52	1,580.63	0.00	0.00	0.00
4,400.00	92.50	195.84	3,167.64	-1,616.70	-458.79	1,680.54	0.00	0.00	0.00
4,500.00	92.50	195.84	3,163.28	-1,712.81	-486.07	1,780.44	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well HAMILTON 1-29
Company:	SHELL E&P	TVD Reference:	KB @ 6354.00ft (KB)
Project:	MOFFAT COUNTY, CO	MD Reference:	KB @ 6354.00ft (KB)
Site:	HAMILTON PAD	North Reference:	True
Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	HAMILTON 1-29		
Design:	Design #5R1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	92.50	195.84	3,158.92	-1,808.92	-513.34	1,880.35	0.00	0.00	0.00
4,700.00	92.50	195.84	3,154.56	-1,905.03	-540.61	1,980.25	0.00	0.00	0.00
4,800.00	92.50	195.84	3,150.19	-2,001.14	-567.89	2,080.16	0.00	0.00	0.00
4,900.00	92.50	195.84	3,145.83	-2,097.25	-595.16	2,180.06	0.00	0.00	0.00
5,000.00	92.50	195.84	3,141.47	-2,193.36	-622.44	2,279.96	0.00	0.00	0.00
5,100.00	92.50	195.84	3,137.11	-2,289.47	-649.71	2,379.87	0.00	0.00	0.00
5,200.00	92.50	195.84	3,132.75	-2,385.58	-676.99	2,479.77	0.00	0.00	0.00
5,300.00	92.50	195.84	3,128.38	-2,481.69	-704.26	2,579.68	0.00	0.00	0.00
5,400.00	92.50	195.84	3,124.02	-2,577.80	-731.53	2,679.58	0.00	0.00	0.00
5,500.00	92.50	195.84	3,119.66	-2,673.91	-758.81	2,779.49	0.00	0.00	0.00
5,600.00	92.50	195.84	3,115.30	-2,770.02	-786.08	2,879.39	0.00	0.00	0.00
TD at 5698.56 - PBHL HAMILTON 1-29 P5R1 - PBHL HAMILTON 1-29 p5									
5,698.56	92.50	195.84	3,111.00	-2,864.74	-812.96	2,977.86	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL HAMILTON 1-29 F	0.00	0.00	3,111.00	-2,864.74	-812.96	1,376,219.15	2,407,953.87	40° 20' 47.960 N	107° 37' 27.450 W
- plan hits target center									
- Point									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,093.00	2,093.00	Top of Niobrara		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,090.01	2,090.01	0.00	0.00	Start Build 5.20
3,868.86	3,190.81	-1,106.22	-313.93	Start 1829.69 hold at 3868.86 MD
5,698.56	3,111.00	-2,864.74	-812.96	TD at 5698.56



SHELL E&P

**MOFFAT COUNTY, CO
HAMILTON PAD
HAMILTON 1-29**

**HAMILTON 1-29
Design #5R1**

Anticollision Report

07 July, 2013



Weatherford®



Company:	SHELL E&P	Local Co-ordinate Reference:	Well HAMILTON 1-29
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6354.00ft (KB)
Reference Site:	HAMILTON PAD	MD Reference:	KB @ 6354.00ft (KB)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	HAMILTON 1-29	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #5R1	Offset TVD Reference:	Offset Datum

Reference	Design #5R1		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 769.86 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 7/7/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	5,698.56	Design #5R1 (HAMILTON 1-29)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HAMILTON PAD						
HAMILTON 2-29 - HAMILTON 2-29 - Design #4	2,281.44	2,280.48	6.56	-3.35	0.662	Level 1, CC, ES, SF

Offset Design HAMILTON PAD - HAMILTON 2-29 - HAMILTON 2-29 - Design #4													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	0.00	0.00	0.00	0.00	-142.58	-14.17	-10.84	17.84					
100.00	100.00	100.00	100.00	0.10	0.10	-142.58	-14.17	-10.84	17.84	17.64	0.20	89.168		
200.00	200.00	200.00	200.00	0.32	0.32	-142.58	-14.17	-10.84	17.84	17.19	0.65	27.460		
300.00	300.00	300.00	300.00	0.55	0.55	-142.58	-14.17	-10.84	17.84	16.74	1.10	16.229		
400.00	400.00	400.00	400.00	0.77	0.77	-142.58	-14.17	-10.84	17.84	16.29	1.55	11.518		
500.00	500.00	500.00	500.00	1.00	1.00	-142.58	-14.17	-10.84	17.84	15.84	2.00	8.927		
600.00	600.00	600.00	600.00	1.22	1.22	-142.58	-14.17	-10.84	17.84	15.39	2.45	7.287		
700.00	700.00	700.00	700.00	1.45	1.45	-142.58	-14.17	-10.84	17.84	14.94	2.90	6.157		
800.00	800.00	800.00	800.00	1.67	1.67	-142.58	-14.17	-10.84	17.84	14.49	3.35	5.330		
900.00	900.00	900.00	900.00	1.90	1.90	-142.58	-14.17	-10.84	17.84	14.04	3.80	4.699		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-142.58	-14.17	-10.84	17.84	13.59	4.25	4.201		
1,100.00	1,100.00	1,100.00	1,100.00	2.35	2.35	-142.58	-14.17	-10.84	17.84	13.14	4.70	3.799		
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-142.58	-14.17	-10.84	17.84	12.69	5.14	3.467		
1,300.00	1,300.00	1,300.00	1,300.00	2.80	2.80	-142.58	-14.17	-10.84	17.84	12.24	5.59	3.188		
1,400.00	1,400.00	1,400.00	1,400.00	3.02	3.02	-142.58	-14.17	-10.84	17.84	11.79	6.04	2.951		
1,500.00	1,500.00	1,500.00	1,500.00	3.25	3.25	-142.58	-14.17	-10.84	17.84	11.34	6.49	2.747		
1,600.00	1,600.00	1,600.00	1,600.00	3.47	3.47	-142.58	-14.17	-10.84	17.84	10.89	6.94	2.569		
1,700.00	1,700.00	1,700.00	1,700.00	3.70	3.70	-142.58	-14.17	-10.84	17.84	10.44	7.39	2.413		
1,800.00	1,800.00	1,800.00	1,800.00	3.92	3.92	-142.58	-14.17	-10.84	17.84	10.00	7.84	2.275		
1,900.00	1,900.00	1,900.00	1,900.00	4.15	4.15	-142.58	-14.17	-10.84	17.84	9.55	8.29	2.151		
2,000.00	2,000.00	2,000.00	2,000.00	4.37	4.37	-142.58	-14.17	-10.84	17.84	9.10	8.74	2.041		
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.60	21.63	-14.17	-10.84	17.80	8.61	9.19	1.937		
2,200.00	2,199.82	2,199.82	2,199.82	4.76	4.82	30.70	-14.17	-10.84	12.90	3.34	9.55	1.350	Level 3	
2,281.44	2,280.48	2,280.48	2,280.48	4.92	5.00	89.99	-14.17	-10.84	6.56	-3.35	9.90	0.662	Level 1, CC, ES, SF	
2,300.00	2,298.73	2,298.73	2,298.73	4.95	5.04	116.71	-14.17	-10.84	7.37	-2.58	9.95	0.741	Level 1	
2,400.00	2,395.93	2,393.78	2,393.66	5.15	5.25	170.67	-11.56	-8.09	30.43	20.35	10.08	3.020		

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



Company:	SHELL E&P	Local Co-ordinate Reference:	Well HAMILTON 1-29
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6354.00ft (KB)
Reference Site:	HAMILTON PAD	MD Reference:	KB @ 6354.00ft (KB)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	HAMILTON 1-29	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #5R1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,500.00	2,490.60	2,478.80	2,477.70	5.43	5.45	-178.40	-2.92	1.00	74.02	63.80	10.23	7.238	
2,600.00	2,581.99	2,550.00	2,546.78	5.83	5.63	-173.94	8.91	13.45	133.33	123.03	10.31	12.934	
2,700.00	2,669.32	2,609.32	2,603.02	6.36	5.79	-171.16	21.89	27.11	205.09	194.77	10.33	19.860	
2,800.00	2,751.88	2,650.00	2,640.73	7.06	5.93	-168.98	32.40	38.17	286.45	276.16	10.29	27.842	
2,900.00	2,828.99	2,688.92	2,676.05	7.92	6.08	-166.41	43.64	50.01	374.74	364.46	10.28	36.444	
3,000.00	2,900.03	2,713.15	2,697.64	8.96	6.18	-162.91	51.23	58.00	468.09	457.70	10.40	45.029	
3,100.00	2,964.39	2,729.12	2,711.67	10.16	6.26	-156.60	56.46	63.50	564.79	553.82	10.97	51.474	
3,200.00	3,021.56	2,738.17	2,719.57	11.49	6.30	-140.99	59.51	66.72	663.50	650.15	13.35	49.699	
3,300.00	3,071.06	2,750.00	2,729.81	12.95	6.36	-96.82	63.59	71.01	763.23	744.13	19.10	39.953	



Company:	SHELL E&P	Local Co-ordinate Reference:	Well HAMILTON 1-29
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6354.00ft (KB)
Reference Site:	HAMILTON PAD	MD Reference:	KB @ 6354.00ft (KB)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	HAMILTON 1-29	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #5R1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 6354.00ft (KB)

Offset Depths are relative to Offset Datum

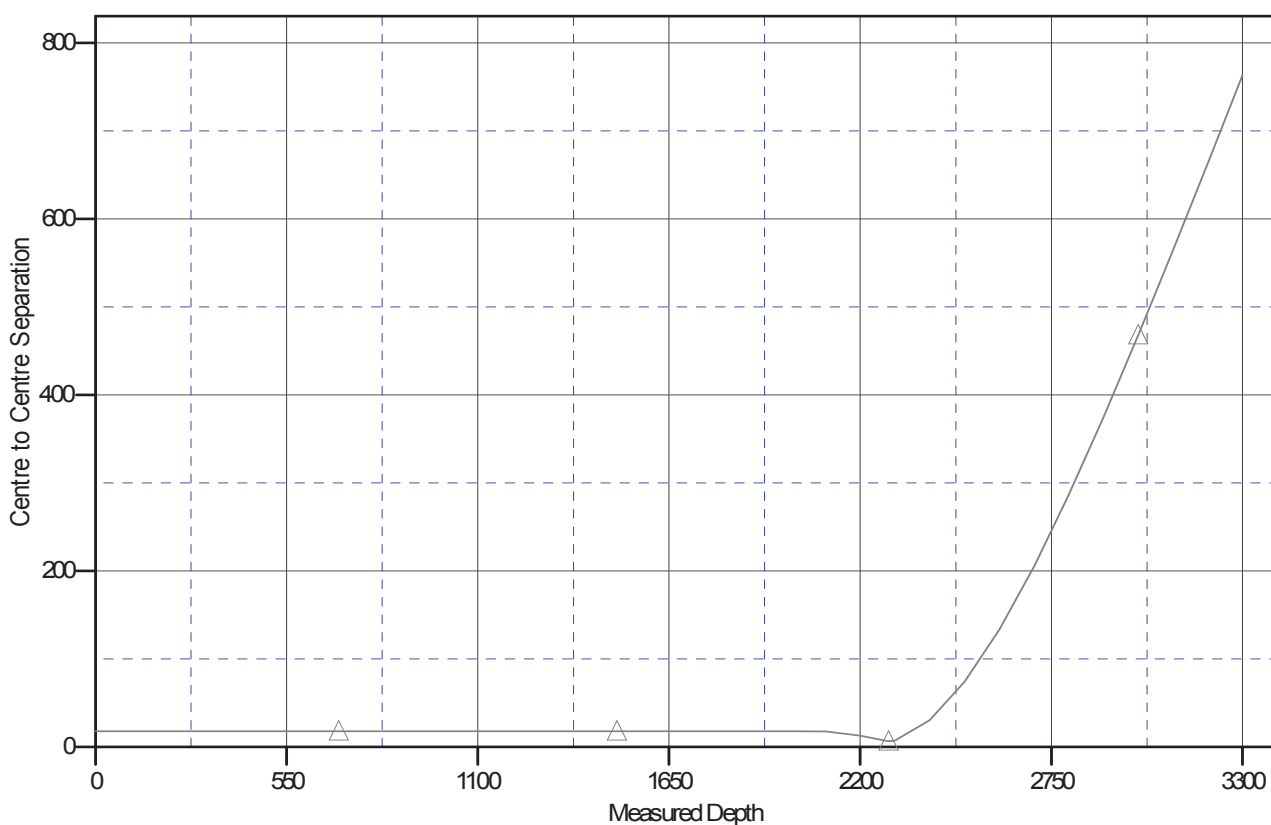
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: HAMILTON 1-29

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: -1.37°

Ladder Plot



LEGEND

△ HAMILTON 2-29, HAMILTON 2-29, Design #4 V0



Company:	SHELL E&P	Local Co-ordinate Reference:	Well HAMILTON 1-29
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6354.00ft (KB)
Reference Site:	HAMILTON PAD	MD Reference:	KB @ 6354.00ft (KB)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	HAMILTON 1-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	HAMILTON 1-29	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #5R1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 6354.00ft (KB)

Offset Depths are relative to Offset Datum

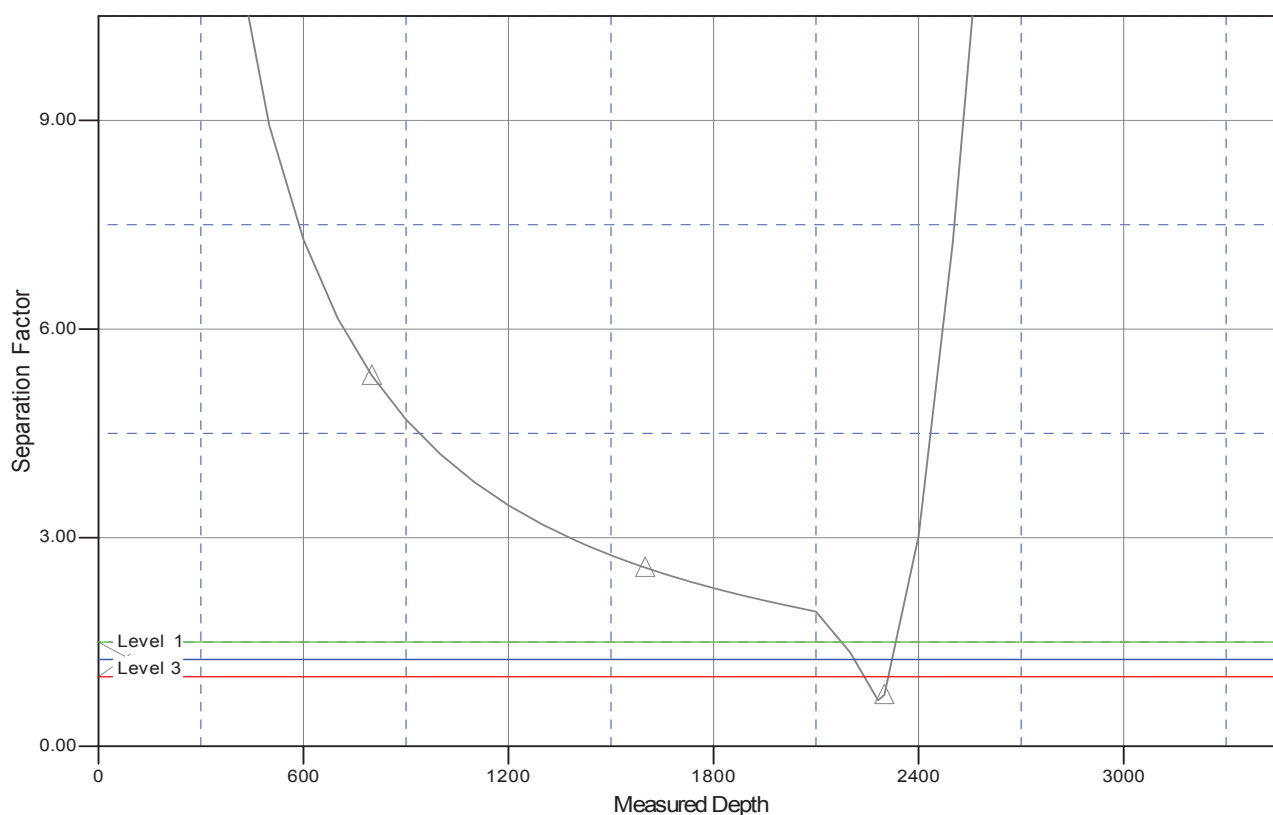
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: HAMILTON 1-29

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: -1.37°

Separation Factor Plot



LEGEND

HAMILTON 2-29, HAMILTON 2-29, Design #4 V0