



SHELL E&P

MOFFAT COUNTY, CO

WOOD GULCH 2-36

WOOD GULCH 2-36

WOOD GULCH 2-36

Plan: PLAN 6

Standard Planning Report

08 May, 2013



Weatherford®



Project: MOFFAT COUNTY, CO
Site: WOOD GULCH 2-36
Well: WOOD GULCH 2-36
Wellbore: WOOD GULCH 2-36
Design: PLAN 6
Latitude: 40° 16' 51.649 N
Longitude: 107° 39' 40.932 W
GL: 6569.20
KB: KB @ 6584.20ft (Original Well Elev)
RIG: Original Well Elev



Weatherford®

WELL DETAILS: WOOD GULCH 2-36

+N/-S	+E/-W	Northing	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1352563.22	6569.20	40° 16' 51.649 N	107° 39' 40.932 W	
			Easting			
			2397039.24			

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL - WOOD GULCH 2-36	1583.96	-3734.05	-1923.90	40° 16' 14.747 N	107° 40' 5.753 W	Point
HEEL - WOOD GULCH 2-36	1815.00	-1103.42	-568.52	40° 16' 40.745 N	107° 39' 48.268 W	Point

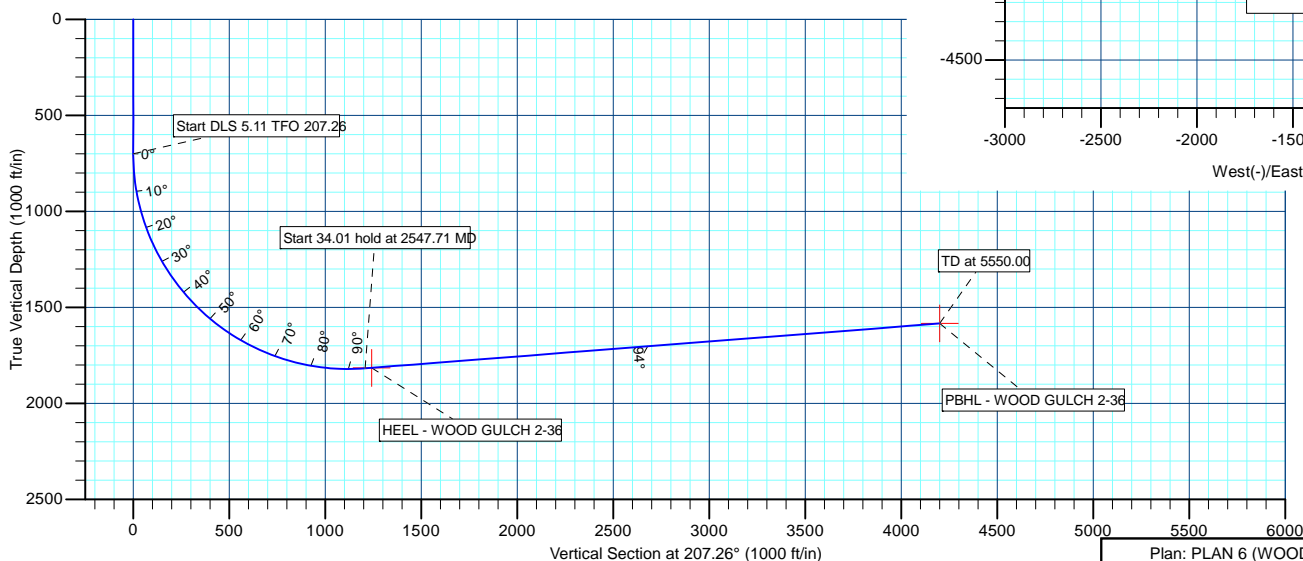
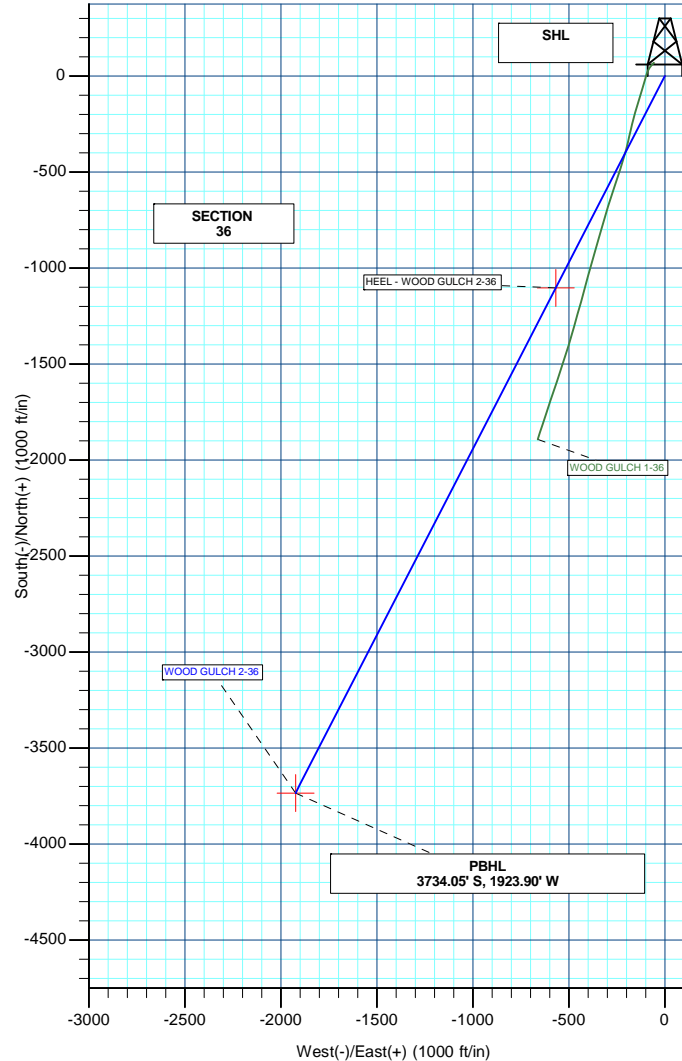
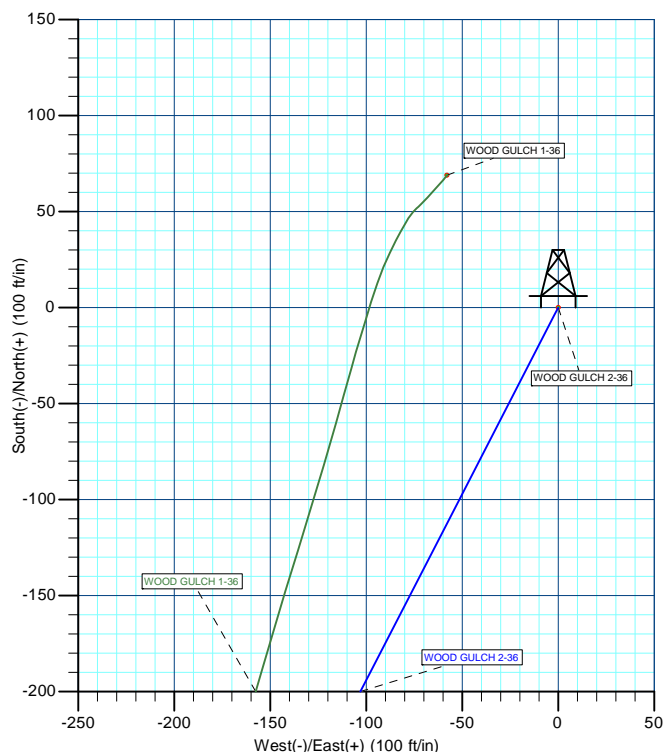
SECTION DETAILS

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	
700.88	0.00	0.00	700.88	0.00	0.00	0.00	0.00	0.00	Start DLS 5.11 TFO 207.26
2547.71	94.46	207.26	1817.65	-1073.27	-552.98	5.11	207.26	1207.36	Start 34.01 hold at 2547.71 MD
2581.73	94.46	207.26	1815.00	-1103.42	-568.52	0.00	0.00	1241.27	Start 2968.27 hold at 2581.73 MD
5550.00	94.46	207.26	1583.96	-3734.05	-1923.90	0.00	0.00	4200.54	TD at 5550.00



Azimuths to True North
Magnetic North: 10.07°

Magnetic Field
Strength: 52441.4snT
Dip Angle: 66.36°
Date: 4/22/2013
Model: BGGM2012



Plan: PLAN 6 (WOOD GULCH 2-36/WOOD GULCH 2-36)

Created By: MATT MAYDEW Date: 10:21, May 08 2013



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
Company:	SHELL E&P	TVD Reference:	KB @ 6584.20ft (Original Well Elev)
Project:	MOFFAT COUNTY, CO	MD Reference:	KB @ 6584.20ft (Original Well Elev)
Site:	WOOD GULCH 2-36	North Reference:	True
Well:	WOOD GULCH 2-36	Survey Calculation Method:	Minimum Curvature
Wellbore:	WOOD GULCH 2-36		
Design:	PLAN 6		

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		WOOD GULCH 2-36			
Site Position:		Northing:	1,352,563.22 usft	Latitude:	40° 16' 51.649 N
From:	Lat/Long	Easting:	2,397,039.24 usft	Longitude:	107° 39' 40.932 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"	Grid Convergence:	-1.40 °

Well	WOOD GULCH 2-36					
Well Position	+N/-S	0.00 ft	Northing:	1,352,563.22 usft	Latitude:	40° 16' 51.649 N
	+E/-W	0.00 ft	Easting:	2,397,039.24 usft	Longitude:	107° 39' 40.932 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,569.20 ft

Wellbore	WOOD GULCH 2-36				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	4/22/2013	10.07	66.36	52,441

Design	PLAN 6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	207.26

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.88	0.00	0.00	700.88	0.00	0.00	0.00	0.00	0.00	0.00	
2,547.71	94.46	207.26	1,817.65	-1,073.27	-552.98	5.11	5.11	-8.27	207.26	
2,581.73	94.46	207.26	1,815.00	-1,103.42	-568.52	0.00	0.00	0.00	0.00	HEEL - WOOD GULC
5,550.00	94.46	207.26	1,583.96	-3,734.05	-1,923.90	0.00	0.00	0.00	0.00	



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
Company:	SHELL E&P	TVD Reference:	KB @ 6584.20ft (Original Well Elev)
Project:	MOFFAT COUNTY, CO	MD Reference:	KB @ 6584.20ft (Original Well Elev)
Site:	WOOD GULCH 2-36	North Reference:	True
Well:	WOOD GULCH 2-36	Survey Calculation Method:	Minimum Curvature
Wellbore:	WOOD GULCH 2-36		
Design:	PLAN 6		

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
Start DLS 5.11 TFO 207.26									
700.88	0.00	0.00	700.88	0.00	0.00	0.00	0.00	0.00	0.00
800.00	5.07	207.26	799.87	-3.90	-2.01	4.38	5.11	5.11	0.00
900.00	10.18	207.26	898.95	-15.69	-8.08	17.65	5.11	5.11	0.00
1,000.00	15.30	207.26	996.46	-35.29	-18.18	39.70	5.11	5.11	0.00
1,100.00	20.41	207.26	1,091.61	-62.54	-32.22	70.36	5.11	5.11	0.00
1,200.00	25.53	207.26	1,183.65	-97.22	-50.09	109.37	5.11	5.11	0.00
1,300.00	30.64	207.26	1,271.84	-139.06	-71.65	156.44	5.11	5.11	0.00
1,400.00	35.76	207.26	1,355.49	-187.73	-96.72	211.18	5.11	5.11	0.00
1,500.00	40.87	207.26	1,433.92	-242.82	-125.11	273.16	5.11	5.11	0.00
1,600.00	45.99	207.26	1,506.52	-303.92	-156.59	341.88	5.11	5.11	0.00
1,700.00	51.10	207.26	1,572.69	-370.52	-190.90	416.81	5.11	5.11	0.00
1,800.00	56.22	207.26	1,631.93	-442.10	-227.79	497.34	5.11	5.11	0.00
1,900.00	61.33	207.26	1,683.75	-518.10	-266.94	582.82	5.11	5.11	0.00
2,000.00	66.45	207.26	1,727.74	-597.90	-308.05	672.59	5.11	5.11	0.00
2,100.00	71.56	207.26	1,763.56	-680.86	-350.80	765.92	5.11	5.11	0.00
2,200.00	76.68	207.26	1,790.91	-766.34	-394.84	862.07	5.11	5.11	0.00
2,300.00	81.79	207.26	1,809.58	-853.64	-439.82	960.28	5.11	5.11	0.00
2,400.00	86.91	207.26	1,819.42	-942.07	-485.38	1,059.76	5.11	5.11	0.00
2,500.00	92.02	207.26	1,820.35	-1,030.93	-531.17	1,159.73	5.11	5.11	0.00
Start 34.01 hold at 2547.71 MD									
2,547.71	94.46	207.26	1,817.65	-1,073.27	-552.98	1,207.36	5.11	5.11	0.00
Start 2968.27 hold at 2581.73 MD - HEEL - WOOD GULCH 2-36									
2,581.73	94.46	207.26	1,815.00	-1,103.42	-568.52	1,241.27	0.00	0.00	0.00
2,600.00	94.46	207.26	1,813.58	-1,119.62	-576.86	1,259.49	0.00	0.00	0.00
2,700.00	94.46	207.26	1,805.79	-1,208.24	-622.52	1,359.18	0.00	0.00	0.00
2,800.00	94.46	207.26	1,798.01	-1,296.86	-668.19	1,458.88	0.00	0.00	0.00
2,900.00	94.46	207.26	1,790.23	-1,385.49	-713.85	1,558.58	0.00	0.00	0.00
3,000.00	94.46	207.26	1,782.44	-1,474.11	-759.51	1,658.27	0.00	0.00	0.00
3,100.00	94.46	207.26	1,774.66	-1,562.74	-805.17	1,757.97	0.00	0.00	0.00
3,200.00	94.46	207.26	1,766.88	-1,651.36	-850.83	1,857.67	0.00	0.00	0.00
3,300.00	94.46	207.26	1,759.09	-1,739.99	-896.50	1,957.36	0.00	0.00	0.00
3,400.00	94.46	207.26	1,751.31	-1,828.61	-942.16	2,057.06	0.00	0.00	0.00
3,500.00	94.46	207.26	1,743.52	-1,917.24	-987.82	2,156.76	0.00	0.00	0.00
3,600.00	94.46	207.26	1,735.74	-2,005.86	-1,033.48	2,256.45	0.00	0.00	0.00
3,700.00	94.46	207.26	1,727.96	-2,094.49	-1,079.15	2,356.15	0.00	0.00	0.00
3,800.00	94.46	207.26	1,720.17	-2,183.11	-1,124.81	2,455.85	0.00	0.00	0.00
3,900.00	94.46	207.26	1,712.39	-2,271.74	-1,170.47	2,555.54	0.00	0.00	0.00
4,000.00	94.46	207.26	1,704.61	-2,360.36	-1,216.13	2,655.24	0.00	0.00	0.00
4,100.00	94.46	207.26	1,696.82	-2,448.99	-1,261.80	2,754.94	0.00	0.00	0.00
4,200.00	94.46	207.26	1,689.04	-2,537.61	-1,307.46	2,854.63	0.00	0.00	0.00
4,300.00	94.46	207.26	1,681.25	-2,626.24	-1,353.12	2,954.33	0.00	0.00	0.00
4,400.00	94.46	207.26	1,673.47	-2,714.86	-1,398.78	3,054.03	0.00	0.00	0.00
4,500.00	94.46	207.26	1,665.69	-2,803.49	-1,444.44	3,153.72	0.00	0.00	0.00
4,600.00	94.46	207.26	1,657.90	-2,892.11	-1,490.11	3,253.42	0.00	0.00	0.00
4,700.00	94.46	207.26	1,650.12	-2,980.74	-1,535.77	3,353.12	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
Company:	SHELL E&P	TVD Reference:	KB @ 6584.20ft (Original Well Elev)
Project:	MOFFAT COUNTY, CO	MD Reference:	KB @ 6584.20ft (Original Well Elev)
Site:	WOOD GULCH 2-36	North Reference:	True
Well:	WOOD GULCH 2-36	Survey Calculation Method:	Minimum Curvature
Wellbore:	WOOD GULCH 2-36		
Design:	PLAN 6		

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)
4,800.00	94.46	207.26	1,642.34	-3,069.36	-1,581.43	3,452.81	0.00	0.00	0.00
4,900.00	94.46	207.26	1,634.55	-3,157.99	-1,627.09	3,552.51	0.00	0.00	0.00
5,000.00	94.46	207.26	1,626.77	-3,246.61	-1,672.76	3,652.21	0.00	0.00	0.00
5,100.00	94.46	207.26	1,618.98	-3,335.24	-1,718.42	3,751.90	0.00	0.00	0.00
5,200.00	94.46	207.26	1,611.20	-3,423.86	-1,764.08	3,851.60	0.00	0.00	0.00
5,300.00	94.46	207.26	1,603.42	-3,512.49	-1,809.74	3,951.29	0.00	0.00	0.00
5,400.00	94.46	207.26	1,595.63	-3,601.11	-1,855.41	4,050.99	0.00	0.00	0.00
5,500.00	94.46	207.26	1,587.85	-3,689.74	-1,901.07	4,150.69	0.00	0.00	0.00
TD at 5550.00 - PBHL - WOOD GULCH 2-36									
5,550.00	94.46	207.26	1,583.96	-3,734.05	-1,923.90	4,200.54	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 - WOOD GULCH	0.00	0.00	1,583.96	-3,734.05	-1,923.90	1,348,877.18	2,395,024.91	40° 16' 14.747 N	107° 40' 5.753 W
- plan hits target center									
- Point									
HEEL - WOOD GULCH	0.00	0.00	1,815.00	-1,103.42	-568.52	1,351,473.99	2,396,444.00	40° 16' 40.745 N	107° 39' 48.268 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
700.88	700.88	0.00	0.00	Start DLS 5.11 TFO 207.26
2,547.71	1,817.65	-1,073.27	-552.98	Start 34.01 hold at 2547.71 MD
2,581.73	1,815.00	-1,103.42	-568.52	Start 2968.27 hold at 2581.73 MD
5,550.00	1,583.96	-3,734.05	-1,923.90	TD at 5550.00



SHELL E&P

MOFFAT COUNTY, CO

WOOD GULCH 2-36

WOOD GULCH 2-36

WOOD GULCH 2-36

PLAN 6

Anticollision Report

08 May, 2013



Weatherford®



Company:	SHELL E&P	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6584.20ft (Original Well Elev)
Reference Site:	WOOD GULCH 2-36	MD Reference:	KB @ 6584.20ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	WOOD GULCH 2-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	WOOD GULCH 2-36	Database:	EDM 5000.1 Single User Db
Reference Design:	PLAN 6	Offset TVD Reference:	Offset Datum

Reference	PLAN 6		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
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 11,000.00 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 5/8/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	5,550.00	PLAN 6 (WOOD GULCH 2-36)	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
Offset Well - Wellbore - Design						
WOOD GULCH 1-36						
WOOD GULCH 1-36 - WOOD GULCH 1-36 - WOOD GU	2,012.87	1,978.26	41.60	15.61	1.601	CC, ES, SF

Offset Design		WOOD GULCH 1-36 - WOOD GULCH 1-36 - WOOD GULCH 1-36 - WOOD GULCH 1-36										Offset Site Error:		0.00 ft
Survey Program:		149-MWD										Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	-40.05	68.92	-57.94	90.08					
100.00	100.00	97.60	97.60	0.10	0.10	-40.24	68.69	-58.13	89.99	89.79	0.20	457.605		
200.00	200.00	197.85	197.84	0.32	0.27	-40.89	67.87	-58.78	89.79	89.20	0.59	153.335		
300.00	300.00	297.80	297.76	0.55	0.49	-42.44	66.00	-60.35	89.44	88.40	1.04	86.017		
400.00	400.00	397.95	397.84	0.77	0.73	-44.77	63.26	-62.75	89.10	87.60	1.50	59.452		
500.00	500.00	497.72	497.51	0.99	0.97	-47.73	59.86	-65.84	88.98	87.02	1.96	45.425		
521.77	521.77	519.51	519.27	1.04	1.02	-48.45	59.02	-66.59	88.98	86.92	2.06	43.207		
600.00	600.00	597.29	596.92	1.22	1.21	-51.34	55.70	-69.64	89.18	86.76	2.42	36.791		
700.00	700.00	696.66	696.02	1.44	1.46	-55.90	50.69	-74.87	90.43	87.55	2.89	31.328		
800.00	799.87	798.95	797.29	1.65	1.77	90.73	38.89	-82.48	91.14	87.73	3.41	26.731		
900.00	898.95	901.28	896.61	1.86	2.20	83.77	16.70	-92.82	90.72	86.69	4.02	22.545		
1,000.00	996.46	1,002.30	991.71	2.14	2.75	75.88	-15.62	-103.12	87.21	82.38	4.83	18.039		
1,100.00	1,091.61	1,100.07	1,079.50	2.56	3.47	65.83	-56.90	-114.84	83.36	77.53	5.83	14.287		
1,174.76	1,160.75	1,170.90	1,139.91	3.00	4.10	57.09	-92.38	-125.21	82.19	75.57	6.62	12.413		
1,200.00	1,183.65	1,194.56	1,159.36	3.15	4.33	53.92	-105.26	-129.09	82.33	75.48	6.85	12.016		
1,300.00	1,271.84	1,286.10	1,230.06	3.93	5.36	40.42	-160.78	-146.00	86.85	79.26	7.59	11.441		
1,400.00	1,355.49	1,383.74	1,300.14	4.87	6.50	27.00	-226.18	-164.59	94.22	86.34	7.88	11.954		
1,500.00	1,433.92	1,484.07	1,372.61	5.98	7.56	16.10	-293.56	-181.12	95.76	87.84	7.92	12.092		
1,600.00	1,506.52	1,581.35	1,443.26	7.25	8.64	6.02	-358.85	-195.56	90.71	82.79	7.92	11.455		
1,700.00	1,572.70	1,675.66	1,509.47	8.64	9.82	-2.47	-423.38	-214.09	83.78	75.48	8.30	10.099		
1,800.00	1,631.93	1,774.03	1,576.86	10.16	11.05	-12.62	-491.71	-235.66	72.71	63.09	9.62	7.557		
1,900.00	1,683.75	1,871.66	1,644.25	11.79	12.20	-30.30	-559.14	-256.71	56.20	42.03	14.17	3.966		
2,000.00	1,727.74	1,966.47	1,711.34	13.51	13.32	-67.53	-622.85	-277.41	41.90	17.17	24.73	1.694		
2,012.87	1,732.82	1,978.26	1,719.78	13.74	13.46	-74.04	-630.68	-279.96	41.60	15.61	25.99	1.601	CC, ES, SF	
2,100.00	1,763.56	2,055.88	1,775.63	15.31	14.39	-113.63	-682.00	-296.44	56.29	28.70	27.60	2.040		
2,200.00	1,790.91	2,140.24	1,836.71	17.17	15.42	-136.05	-737.66	-313.42	98.92	74.77	24.15	4.095		

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



Weatherford International Ltd.

Anticollision Report



Company:	SHELL E&P	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6584.20ft (Original Well Elev)
Reference Site:	WOOD GULCH 2-36	MD Reference:	KB @ 6584.20ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	WOOD GULCH 2-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	WOOD GULCH 2-36	Database:	EDM 5000.1 Single User Db
Reference Design:	PLAN 6	Offset TVD Reference:	Offset Datum

Offset Design WOOD GULCH 1-36 - WOOD GULCH 1-36 - WOOD GULCH 1-36 - WOOD GULCH 1-36													Offset Site Error:	0.00 ft
Survey Program: 149-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		
2,300.00	1,809.58	2,220.86	1,894.89	19.07	16.41	-145.66	-791.19	-329.20	154.42	132.20	22.23	6.947		
2,400.00	1,819.42	2,295.08	1,948.32	21.01	17.34	-150.28	-840.67	-343.51	218.35	196.87	21.48	10.165		
2,500.00	1,820.35	2,368.19	2,000.67	22.95	18.26	-152.93	-889.74	-357.53	288.98	267.74	21.24	13.605		
2,600.00	1,813.58	2,435.78	2,048.17	24.90	19.12	-155.39	-935.96	-370.78	363.88	342.77	21.11	17.235		
2,700.00	1,805.79	2,498.33	2,092.09	26.85	19.92	-157.73	-978.82	-382.91	439.83	418.65	21.18	20.763		
2,800.00	1,798.01	2,559.45	2,135.19	28.80	20.69	-159.36	-1,020.57	-394.57	516.32	494.77	21.55	23.963		
2,900.00	1,790.23	2,619.30	2,177.61	30.76	21.45	-160.57	-1,061.24	-405.84	593.31	571.23	22.08	26.868		
3,000.00	1,782.44	2,677.56	2,219.13	32.72	22.18	-161.48	-1,100.71	-416.45	670.83	648.08	22.75	29.487		
3,100.00	1,774.66	2,744.53	2,266.96	34.69	23.02	-162.31	-1,145.99	-428.58	748.56	725.09	23.47	31.898		
3,200.00	1,766.88	2,808.33	2,312.32	36.65	23.82	-163.00	-1,189.13	-440.87	825.82	801.60	24.22	34.100		
3,300.00	1,759.09	2,858.90	2,348.61	38.62	24.44	-163.48	-1,223.02	-450.46	903.71	878.68	25.03	36.108		
3,400.00	1,751.31	2,927.49	2,398.17	40.59	25.30	-164.02	-1,268.72	-463.13	982.14	956.29	25.86	37.984		
3,500.00	1,743.52	3,006.78	2,454.47	42.56	26.29	-164.52	-1,322.44	-478.31	1,059.43	1,032.69	26.74	39.622		
3,600.00	1,735.74	3,074.66	2,502.39	44.53	27.13	-164.91	-1,368.57	-491.83	1,136.28	1,108.64	27.63	41.122		
3,700.00	1,727.96	3,142.41	2,550.11	46.50	27.98	-165.26	-1,414.66	-505.59	1,212.93	1,184.38	28.54	42.492		
3,800.00	1,720.17	3,209.33	2,597.15	48.47	28.81	-165.58	-1,460.23	-519.38	1,289.41	1,259.94	29.47	43.754		
3,900.00	1,712.39	3,277.81	2,645.33	50.45	29.67	-165.90	-1,506.60	-534.14	1,365.79	1,335.42	30.38	44.958		
4,000.00	1,704.61	3,355.37	2,699.69	52.42	30.64	-166.27	-1,559.04	-551.76	1,441.77	1,410.48	31.28	46.086		
4,100.00	1,696.82	3,421.05	2,745.55	54.40	31.47	-166.57	-1,603.50	-567.03	1,517.44	1,485.25	32.19	47.139		
4,200.00	1,689.04	3,477.71	2,785.14	56.37	32.19	-166.80	-1,641.87	-580.09	1,593.21	1,560.11	33.10	48.132		
4,300.00	1,681.25	3,525.10	2,818.57	58.35	32.78	-166.97	-1,673.70	-590.84	1,669.60	1,635.60	34.00	49.102		
4,400.00	1,673.47	3,581.56	2,858.74	60.32	33.48	-167.17	-1,711.32	-603.44	1,746.56	1,711.64	34.92	50.019		
4,500.00	1,665.69	3,643.00	2,902.42	62.30	34.24	-167.36	-1,752.35	-616.99	1,823.53	1,787.68	35.85	50.861		
4,600.00	1,657.90	3,694.63	2,939.25	64.27	34.87	-167.51	-1,786.73	-628.25	1,900.77	1,863.99	36.78	51.684		
4,700.00	1,650.12	3,738.00	2,970.43	66.25	35.40	-167.62	-1,815.39	-637.60	1,978.53	1,940.85	37.68	52.503		
4,800.00	1,642.34	3,790.47	3,008.41	68.23	36.05	-167.75	-1,849.87	-648.66	2,056.75	2,018.14	38.61	53.265		
4,900.00	1,634.55	3,848.98	3,050.92	70.21	36.78	-167.88	-1,888.22	-660.71	2,135.27	2,095.71	39.56	53.973		
5,000.00	1,626.77	3,856.00	3,056.02	72.18	36.87	-167.90	-1,892.82	-662.16	2,214.49	2,174.09	40.40	54.810		
5,100.00	1,618.98	3,856.00	3,056.02	74.16	36.87	-167.90	-1,892.82	-662.16	2,295.33	2,254.10	41.23	55.673		
5,200.00	1,611.20	3,856.00	3,056.02	76.14	36.87	-167.90	-1,892.82	-662.16	2,377.62	2,335.56	42.06	56.536		
5,300.00	1,603.42	3,856.00	3,056.02	78.12	36.87	-167.90	-1,892.82	-662.16	2,461.22	2,418.34	42.88	57.396		
5,400.00	1,595.63	3,856.00	3,056.02	80.10	36.87	-167.90	-1,892.82	-662.16	2,546.01	2,502.30	43.71	58.250		
5,500.00	1,587.85	3,856.00	3,056.02	82.07	36.87	-167.90	-1,892.82	-662.16	2,631.86	2,587.33	44.53	59.097		
5,550.00	1,583.96	3,856.00	3,056.02	83.06	36.87	-167.90	-1,892.82	-662.16	2,675.16	2,630.21	44.95	59.517		



Company:	SHELL E&P	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
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Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	WOOD GULCH 2-36	Database:	EDM 5000.1 Single User Db
Reference Design:	PLAN 6	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 6584.20ft (Original Well Elev)

Offset Depths are relative to Offset Datum

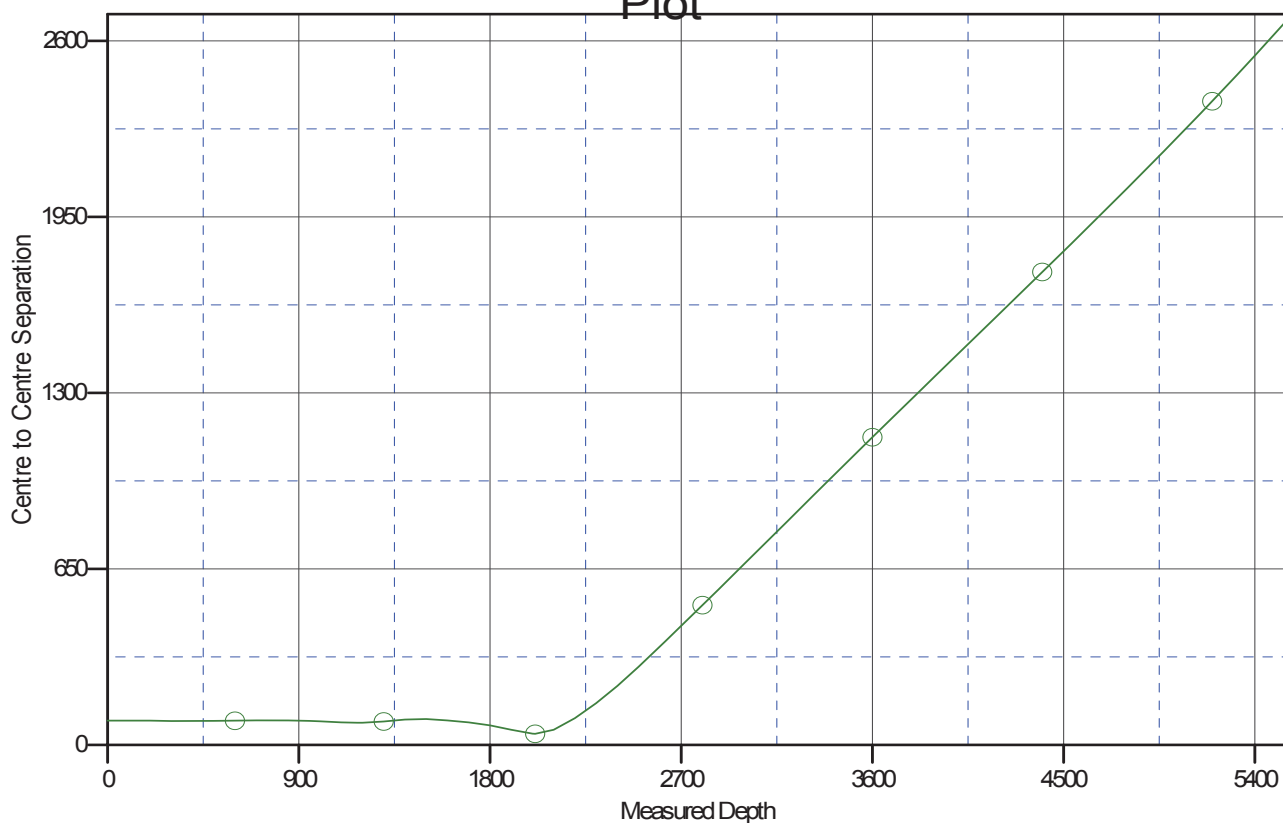
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: WOOD GULCH 2-36

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: -1.40°

Ladder Plot



LEGEND

i, WOOD GULCH 1-36, WOOD GULCH 1-36 V0



Company:	SHELL E&P	Local Co-ordinate Reference:	Well WOOD GULCH 2-36
Project:	MOFFAT COUNTY, CO	TVD Reference:	KB @ 6584.20ft (Original Well Elev)
Reference Site:	WOOD GULCH 2-36	MD Reference:	KB @ 6584.20ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	True
Reference Well:	WOOD GULCH 2-36	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	WOOD GULCH 2-36	Database:	EDM 5000.1 Single User Db
Reference Design:	PLAN 6	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 6584.20ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: WOOD GULCH 2-36

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: -1.40°

