



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_WHISTON 3 PAD

P_WHISTON 21-4

P_WHISTON 21-4

Plan: PLAN #1 09-02-09 RHS

Standard Planning Report

02 September, 2009





P_WHISTON 21-4
KERR MCGEE OIL & GAS ONSHORE LP
SECTION 4 T2N R67W
1609 FNL 1437 FEL
LAT: 40° 10' 13.908 N
LONG: 104° 53' 27.240 W



Azimuths to True North
Magnetic North: 9.11°
Magnetic Field
Strength: 53203.1snT
Dip Angle: 66.91°
Date: 9/2/2009
Model: IGRF200510

WELL DETAILS: P_WHISTON 21-4

+N/-S	+E/-W	Northing	Ground Level: Easting	4892.00 Latitude	Longitude	Slot
0.00	0.00	1305551.65	3170213.52	40° 10' 13.908 N	104° 53' 27.240 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3933.00	4134.40	PARKMAN
4469.00	4676.53	SUSSEX TOP
4896.00	5103.58	SHANNON TOP
7149.00	7356.58	NIO A TOP
7409.00	7616.58	CODELL TOP

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	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	
2136.22	24.72	279.69	2098.21	44.21	-258.87	2.00	279.69	262.61	
3571.36	24.72	279.69	3401.79	145.25	-850.56	0.00	0.00	862.87	
4807.58	0.00	0.00	4600.00	189.45	-1109.42	2.00	180.00	1125.48	
7776.58	0.00	0.00	7569.00	189.45	-1109.42	0.00	0.00	1125.48	PBHL_WHISTON 21-4(1450 FNL 2550 FEL)50' TGT RAD

CASING DETAILS

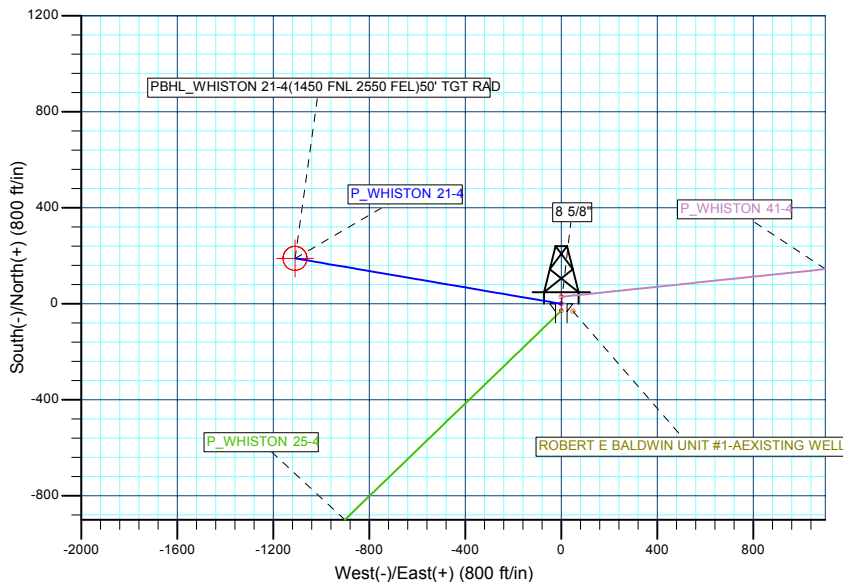
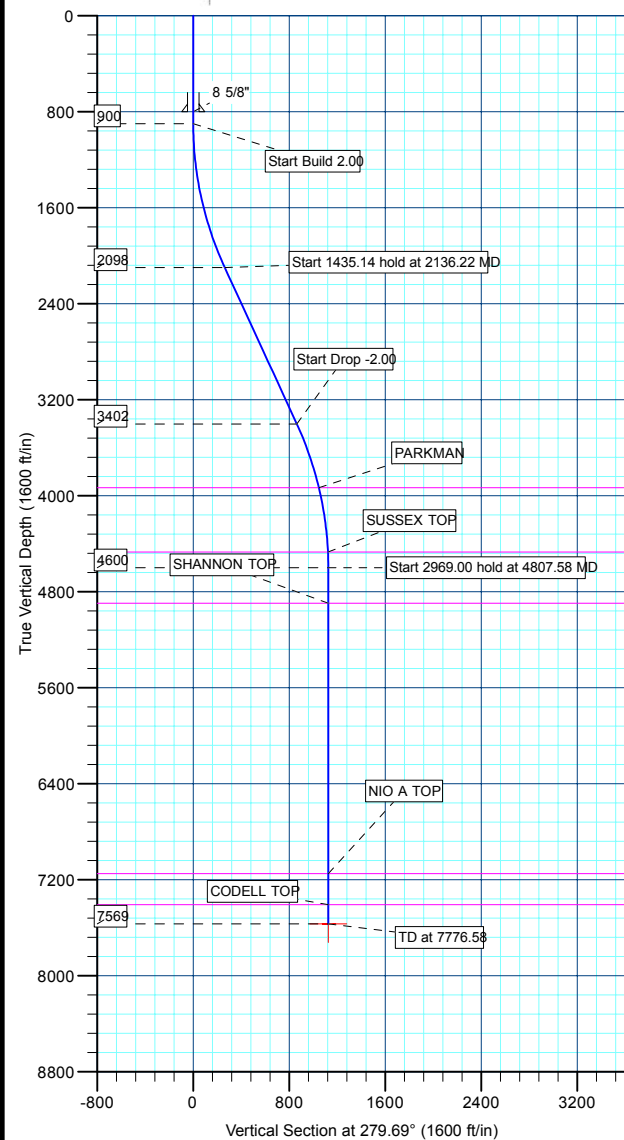
TVD	MD	Name	Size
800.00	800.00	8 5/8"	8.62

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7569.00	189.45	-1109.42	1305733.48	3169102.82	40° 10' 15.780 N	104° 53' 41.532 W	Circle (Radius: 50.00)



KB ELEV: WELL @ 4907.00ft (Original Well Elev)
GRD ELEV: 4892.00



Plan: PLAN #1 09-02-09 RHS (P_WHISTON 21-4/P_WHISTON 21-4)

Created By: Robert H. Scott



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 21-4		
Design:	PLAN #1 09-02-09 RHS		

Project	KERR MCGEE OIL & GAS ONSHORE LP, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		WELD_WHISTON 3 PAD, SECTION 4 T2N R67W			
Site Position:		Northing:	1,305,551.65 ft	Latitude:	40° 10' 13.908 N
From:	Lat/Long	Easting:	3,170,213.52 ft	Longitude:	104° 53' 27.240 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.39 °

Well	P_WHISTON 21-4					
Well Position	+N/-S	0.00 ft	Northing:	1,305,551.65 ft	Latitude:	40° 10' 13.908 N
	+E/-W	0.00 ft	Easting:	3,170,213.52 ft	Longitude:	104° 53' 27.240 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,892.00 ft

Wellbore	P_WHISTON 21-4				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/2/2009	9.12	66.91	53,203

Design	PLAN #1 09-02-09 RHS				
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	279.69	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
2,136.22	24.72	279.69	2,098.21	44.21	-258.87	2.00	2.00	0.00	279.69	
3,571.36	24.72	279.69	3,401.79	145.25	-850.56	0.00	0.00	0.00	0.00	
4,807.58	0.00	0.00	4,600.00	189.45	-1,109.42	2.00	-2.00	0.00	180.00	
7,776.58	0.00	0.00	7,569.00	189.45	-1,109.42	0.00	0.00	0.00	0.00	PBHL_WHISTON 2



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 21-4		
Design:	PLAN #1 09-02-09 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	279.69	999.98	0.29	-1.72	1.75	2.00	2.00	0.00
1,100.00	4.00	279.69	1,099.84	1.17	-6.88	6.98	2.00	2.00	0.00
1,200.00	6.00	279.69	1,199.45	2.64	-15.47	15.69	2.00	2.00	0.00
1,300.00	8.00	279.69	1,298.70	4.69	-27.48	27.88	2.00	2.00	0.00
1,400.00	10.00	279.69	1,397.47	7.33	-42.90	43.52	2.00	2.00	0.00
1,500.00	12.00	279.69	1,495.62	10.54	-61.71	62.60	2.00	2.00	0.00
1,600.00	14.00	279.69	1,593.06	14.32	-83.88	85.10	2.00	2.00	0.00
1,700.00	16.00	279.69	1,689.64	18.68	-109.39	110.98	2.00	2.00	0.00
1,800.00	18.00	279.69	1,785.27	23.60	-138.21	140.21	2.00	2.00	0.00
1,900.00	20.00	279.69	1,879.82	29.08	-170.30	172.77	2.00	2.00	0.00
2,000.00	22.00	279.69	1,973.17	35.11	-205.63	208.60	2.00	2.00	0.00
2,100.00	24.00	279.69	2,065.21	41.69	-244.14	247.67	2.00	2.00	0.00
2,136.22	24.72	279.69	2,098.21	44.21	-258.87	262.61	2.00	2.00	0.00
2,200.00	24.72	279.69	2,156.14	48.70	-285.16	289.29	0.00	0.00	0.00
2,300.00	24.72	279.69	2,246.98	55.74	-326.39	331.12	0.00	0.00	0.00
2,400.00	24.72	279.69	2,337.81	62.78	-367.62	372.94	0.00	0.00	0.00
2,500.00	24.72	279.69	2,428.64	69.82	-408.85	414.77	0.00	0.00	0.00
2,600.00	24.72	279.69	2,519.47	76.86	-450.08	456.59	0.00	0.00	0.00
2,700.00	24.72	279.69	2,610.31	83.90	-491.31	498.42	0.00	0.00	0.00
2,800.00	24.72	279.69	2,701.14	90.94	-532.53	540.24	0.00	0.00	0.00
2,900.00	24.72	279.69	2,791.97	97.98	-573.76	582.07	0.00	0.00	0.00
3,000.00	24.72	279.69	2,882.81	105.02	-614.99	623.89	0.00	0.00	0.00
3,100.00	24.72	279.69	2,973.64	112.06	-656.22	665.72	0.00	0.00	0.00
3,200.00	24.72	279.69	3,064.47	119.10	-697.45	707.54	0.00	0.00	0.00
3,300.00	24.72	279.69	3,155.31	126.14	-738.68	749.37	0.00	0.00	0.00
3,400.00	24.72	279.69	3,246.14	133.18	-779.91	791.20	0.00	0.00	0.00
3,500.00	24.72	279.69	3,336.97	140.22	-821.13	833.02	0.00	0.00	0.00
3,571.36	24.72	279.69	3,401.79	145.25	-850.56	862.87	0.00	0.00	0.00
3,600.00	24.15	279.69	3,427.86	147.24	-862.23	874.72	2.00	-2.00	0.00
3,700.00	22.15	279.69	3,519.81	153.86	-900.99	914.03	2.00	-2.00	0.00
3,800.00	20.15	279.69	3,613.06	159.93	-936.55	950.11	2.00	-2.00	0.00
3,900.00	18.15	279.69	3,707.53	165.45	-968.89	982.92	2.00	-2.00	0.00
4,000.00	16.15	279.69	3,803.07	170.42	-997.96	1,012.41	2.00	-2.00	0.00
4,100.00	14.15	279.69	3,899.59	174.82	-1,023.72	1,038.54	2.00	-2.00	0.00
PARKMAN									
4,134.40	13.46	279.69	3,933.00	176.20	-1,031.82	1,046.75	2.00	-2.00	0.00
4,200.00	12.15	279.69	3,996.96	178.65	-1,046.15	1,061.29	2.00	-2.00	0.00
4,300.00	10.15	279.69	4,095.07	181.90	-1,065.21	1,080.63	2.00	-2.00	0.00
4,400.00	8.15	279.69	4,193.79	184.58	-1,080.89	1,096.54	2.00	-2.00	0.00
4,500.00	6.15	279.69	4,293.01	186.67	-1,093.16	1,108.99	2.00	-2.00	0.00
4,600.00	4.15	279.69	4,392.60	188.19	-1,102.01	1,117.96	2.00	-2.00	0.00
SUSSEX TOP									
4,676.53	2.62	279.69	4,469.00	188.95	-1,106.47	1,122.49	2.00	-2.00	0.00
4,700.00	2.15	279.69	4,492.44	189.11	-1,107.43	1,123.46	2.00	-2.00	0.00
4,800.00	0.15	279.69	4,592.42	189.45	-1,109.41	1,125.47	2.00	-2.00	0.00
4,807.58	0.00	0.00	4,600.00	189.45	-1,109.42	1,125.48	2.00	-2.00	0.00
4,900.00	0.00	0.00	4,692.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,000.00	0.00	0.00	4,792.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,100.00	0.00	0.00	4,892.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
SHANNON TOP									
5,103.58	0.00	0.00	4,896.00	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,200.00	0.00	0.00	4,992.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 21-4		
Design:	PLAN #1 09-02-09 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	0.00	0.00	5,092.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,400.00	0.00	0.00	5,192.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,500.00	0.00	0.00	5,292.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,600.00	0.00	0.00	5,392.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,700.00	0.00	0.00	5,492.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,800.00	0.00	0.00	5,592.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
5,900.00	0.00	0.00	5,692.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,000.00	0.00	0.00	5,792.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,100.00	0.00	0.00	5,892.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,200.00	0.00	0.00	5,992.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,300.00	0.00	0.00	6,092.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,400.00	0.00	0.00	6,192.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,500.00	0.00	0.00	6,292.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,600.00	0.00	0.00	6,392.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,700.00	0.00	0.00	6,492.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,800.00	0.00	0.00	6,592.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
6,900.00	0.00	0.00	6,692.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,000.00	0.00	0.00	6,792.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,100.00	0.00	0.00	6,892.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,200.00	0.00	0.00	6,992.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,300.00	0.00	0.00	7,092.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
NIO A TOP									
7,356.58	0.00	0.00	7,149.00	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,400.00	0.00	0.00	7,192.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,500.00	0.00	0.00	7,292.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,600.00	0.00	0.00	7,392.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
CODELL TOP									
7,616.58	0.00	0.00	7,409.00	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
7,700.00	0.00	0.00	7,492.42	189.45	-1,109.42	1,125.48	0.00	0.00	0.00
PBHL_WHISTON 21-4(1450 FNL 2550 FEL)50' TGT RAD									
7,776.58	0.00	0.00	7,569.00	189.45	-1,109.42	1,125.48	0.00	0.00	0.00

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL_WHISTON 21- - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,569.00	189.45	-1,109.42	1,305,733.48	3,169,102.82	40° 10' 15.780 N	104° 53' 41.532 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
800.00	800.00	8 5/8"	8.62	11.00



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 21-4		
Design:	PLAN #1 09-02-09 RHS		

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	4,134.40	3,933.00	PARKMAN			
	4,676.53	4,469.00	SUSSEX TOP			
	5,103.58	4,896.00	SHANNON TOP			
	7,356.58	7,149.00	NIO A TOP			
	7,616.58	7,409.00	CODELL TOP			



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_WHISTON 3 PAD
P_WHISTON 21-4**

**P_WHISTON 21-4
PLAN #1 09-02-09 RHS**

Anticollision Report

02 September, 2009





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 09-02-09 RHS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 9/2/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	7,776.58	PLAN #1 09-02-09 RHS (P_WHISTON 21	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						
WELD_WHISTON 3 PAD						
P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02	900.00	900.00	29.16	25.37	7.698	CC, ES
P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02	1,000.00	999.27	30.66	26.45	7.296	SF
P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02	952.26	952.18	29.11	25.10	7.258	CC
P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02	1,000.00	999.77	29.22	25.00	6.933	ES
P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02	1,100.00	1,098.84	31.81	27.18	6.872	SF
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	900.00	900.00	57.92	22.33	1.627	CC
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	1,000.00	999.98	59.54	19.75	1.496	Level 3, ES
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	1,100.00	1,099.84	64.42	20.50	1.467	Level 3, SF

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02-09 RH											
Survey Program: 0-MWD											
Reference											
Measured Depth (ft)	Vertical Depth (ft)	Offset	Semi Major Axis	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance	Minimum Separation (ft)	Separation Factor
									Between Centres (ft)	Between Ellipses (ft)	Warning
0.00	0.00	0.00	0.00	0.00	0.00	180.00	-29.16	0.00	29.16		
100.00	100.00	100.00	100.00	0.10	0.10	180.00	-29.16	0.00	29.16	28.96	0.19 152.603
200.00	200.00	200.00	200.00	0.32	0.32	180.00	-29.16	0.00	29.16	28.51	0.64 45.513
300.00	300.00	300.00	300.00	0.55	0.55	180.00	-29.16	0.00	29.16	28.06	1.09 26.745
400.00	400.00	400.00	400.00	0.77	0.77	180.00	-29.16	0.00	29.16	27.62	1.54 18.936
500.00	500.00	500.00	500.00	0.99	0.99	180.00	-29.16	0.00	29.16	27.17	1.99 14.657
600.00	600.00	600.00	600.00	1.22	1.22	180.00	-29.16	0.00	29.16	26.72	2.44 11.955
700.00	700.00	700.00	700.00	1.44	1.44	180.00	-29.16	0.00	29.16	26.27	2.89 10.094
800.00	800.00	800.00	800.00	1.67	1.67	180.00	-29.16	0.00	29.16	25.82	3.34 8.735
900.00	900.00	900.00	900.00	1.89	1.89	180.00	-29.16	0.00	29.16	25.37	3.79 7.698 CC, ES
1,000.00	999.98	999.27	999.25	2.11	2.09	-100.54	-30.35	-1.24	30.66	26.45	4.20 7.296 SF
1,100.00	1,099.84	1,098.40	1,098.24	2.32	2.28	-102.64	-33.92	-4.94	35.19	30.59	4.60 7.655
1,200.00	1,199.45	1,197.24	1,196.71	2.54	2.48	-105.13	-39.86	-11.08	42.81	37.79	5.02 8.530
1,300.00	1,298.70	1,295.65	1,294.39	2.79	2.71	-107.38	-48.10	-19.62	53.55	48.07	5.48 9.774
1,400.00	1,397.47	1,393.49	1,391.05	3.07	2.97	-109.16	-58.60	-30.50	67.39	61.40	5.99 11.247
1,500.00	1,495.62	1,490.63	1,486.45	3.39	3.26	-110.47	-71.29	-43.65	84.30	77.73	6.57 12.824
1,600.00	1,593.06	1,586.95	1,580.39	3.76	3.61	-111.41	-86.09	-58.97	104.23	96.99	7.24 14.404
1,700.00	1,689.64	1,682.33	1,672.65	4.20	4.01	-112.04	-102.89	-76.38	127.11	119.12	7.99 15.907
1,800.00	1,785.27	1,776.68	1,763.06	4.69	4.46	-112.45	-121.60	-95.76	152.90	144.05	8.85 17.284
1,900.00	1,879.82	1,869.88	1,851.46	5.26	4.96	-112.68	-142.10	-116.99	181.52	171.71	9.81 18.507

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02-09 RH												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												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	
2,000.00	1,973.17	1,961.85	1,937.71	5.90	5.52	-112.77	-164.28	-139.97	212.90	202.02	10.88	19.570	
2,100.00	2,065.21	2,052.53	2,021.69	6.61	6.13	-112.74	-188.02	-164.56	246.97	234.91	12.06	20.478	
2,136.22	2,098.21	2,085.04	2,051.53	6.89	6.36	-112.71	-196.97	-173.83	259.96	247.44	12.51	20.776	
2,200.00	2,156.14	2,142.44	2,103.86	7.39	6.78	-112.96	-213.35	-190.80	283.38	270.03	13.35	21.224	
2,300.00	2,246.98	2,235.33	2,188.32	8.20	7.49	-113.19	-240.22	-218.63	320.38	305.66	14.72	21.760	
2,400.00	2,337.81	2,328.23	2,272.77	9.02	8.22	-113.37	-267.10	-246.47	357.38	341.26	16.12	22.168	
2,500.00	2,428.64	2,421.13	2,357.23	9.86	8.96	-113.52	-293.97	-274.31	394.39	376.85	17.54	22.483	
2,600.00	2,519.47	2,514.02	2,441.69	10.70	9.71	-113.64	-320.84	-302.14	431.40	412.42	18.98	22.731	
2,700.00	2,610.31	2,606.92	2,526.14	11.55	10.46	-113.75	-347.72	-329.98	468.40	447.98	20.43	22.931	
2,800.00	2,701.14	2,699.82	2,610.60	12.40	11.22	-113.84	-374.59	-357.82	505.41	483.53	21.89	23.093	
2,900.00	2,791.97	2,792.71	2,695.05	13.26	11.99	-113.91	-401.47	-385.66	542.42	519.07	23.35	23.227	
3,000.00	2,882.81	2,885.61	2,779.51	14.13	12.75	-113.98	-428.34	-413.49	579.43	554.61	24.83	23.339	
3,100.00	2,973.64	2,978.51	2,863.96	14.99	13.52	-114.04	-455.21	-441.33	616.45	590.14	26.31	23.433	
3,200.00	3,064.47	3,071.41	2,948.42	15.86	14.30	-114.09	-482.09	-469.17	653.46	625.67	27.79	23.514	
3,300.00	3,155.31	3,164.30	3,032.87	16.73	15.07	-114.14	-508.96	-497.00	690.47	661.19	29.28	23.585	
3,400.00	3,246.14	3,257.20	3,117.33	17.61	15.85	-114.18	-535.83	-524.84	727.48	696.72	30.77	23.646	
3,500.00	3,336.97	3,350.10	3,201.78	18.48	16.63	-114.22	-562.71	-552.68	764.50	732.24	32.26	23.699	
3,571.36	3,401.79	3,416.39	3,262.05	19.10	17.18	-114.24	-581.89	-572.54	790.91	757.59	33.32	23.734	
3,600.00	3,427.86	3,443.01	3,286.26	19.33	17.41	-114.45	-589.59	-580.52	801.45	767.71	33.74	23.753	
3,700.00	3,519.81	3,536.30	3,371.07	19.99	18.19	-114.99	-616.57	-608.47	837.41	802.32	35.09	23.867	
3,800.00	3,613.06	3,629.99	3,456.24	20.61	18.98	-115.30	-643.68	-636.55	872.00	835.61	36.39	23.962	
3,900.00	3,707.53	3,723.95	3,541.67	21.17	19.77	-115.39	-670.86	-664.71	905.24	867.59	37.65	24.045	
4,000.00	3,803.07	3,818.09	3,627.26	21.69	20.56	-115.30	-698.09	-692.92	937.16	898.31	38.85	24.121	
4,100.00	3,899.59	3,912.29	3,712.89	22.15	21.36	-115.03	-725.34	-721.14	967.83	927.83	40.00	24.195	
4,200.00	3,996.96	4,006.43	3,798.48	22.55	22.15	-114.60	-752.58	-749.35	997.33	956.24	41.09	24.272	
4,300.00	4,095.07	4,100.39	3,883.90	22.91	22.95	-114.04	-779.76	-777.51	1,025.75	983.64	42.11	24.358	
4,400.00	4,193.79	4,194.06	3,969.06	23.21	23.74	-113.35	-806.86	-805.58	1,053.21	1,010.14	43.06	24.457	
4,500.00	4,293.01	4,287.34	4,053.86	23.46	24.53	-112.55	-833.84	-833.53	1,079.84	1,035.90	43.94	24.574	
4,600.00	4,392.60	4,380.09	4,138.19	23.66	25.31	-111.65	-860.67	-861.32	1,105.79	1,061.04	44.74	24.714	
4,700.00	4,492.44	4,472.22	4,221.94	23.82	26.09	-110.66	-887.32	-888.93	1,131.21	1,085.72	45.49	24.870	
4,807.58	4,600.00	4,570.50	4,311.29	23.93	26.93	170.19	-915.75	-918.38	1,158.16	1,111.94	46.21	25.061	
4,900.00	4,692.42	4,666.17	4,398.42	24.01	27.68	171.83	-943.20	-946.81	1,181.43	1,134.68	46.75	25.271	
5,000.00	4,792.42	4,791.41	4,514.16	24.10	28.45	173.72	-976.41	-981.21	1,205.45	1,158.20	47.25	25.512	
5,100.00	4,892.42	4,921.04	4,636.04	24.19	29.14	175.39	-1,007.06	-1,012.96	1,227.47	1,179.79	47.68	25.746	
5,200.00	4,992.42	5,054.74	4,763.70	24.29	29.78	176.82	-1,034.62	-1,041.50	1,247.11	1,199.04	48.06	25.947	
5,300.00	5,092.42	5,192.09	4,896.63	24.38	30.36	178.02	-1,058.60	-1,066.34	1,264.05	1,215.62	48.42	26.104	
5,400.00	5,192.42	5,332.60	5,034.17	24.48	30.84	178.99	-1,078.51	-1,086.97	1,278.00	1,229.25	48.75	26.217	
5,500.00	5,292.42	5,475.68	5,175.49	24.58	31.25	179.71	-1,093.96	-1,102.97	1,288.74	1,239.69	49.05	26.274	
5,600.00	5,392.42	5,620.67	5,319.65	24.69	31.56	-179.80	-1,104.59	-1,113.99	1,296.10	1,246.77	49.33	26.273	
5,700.00	5,492.42	5,766.85	5,465.59	24.79	31.76	-179.54	-1,110.17	-1,119.76	1,299.94	1,250.35	49.59	26.215	
5,800.00	5,592.42	5,893.68	5,592.42	24.89	31.88	-179.50	-1,111.04	-1,120.66	1,300.54	1,250.72	49.82	26.106	
5,900.00	5,692.42	5,993.68	5,692.42	25.00	31.95	-179.50	-1,111.04	-1,120.66	1,300.54	1,250.51	50.02	26.000	
6,000.00	5,792.42	6,093.68	5,792.42	25.11	32.03	-179.50	-1,111.04	-1,120.66	1,300.54	1,250.31	50.23	25.892	
6,100.00	5,892.42	6,193.68	5,892.42	25.22	32.11	-179.50	-1,111.04	-1,120.66	1,300.54	1,250.10	50.44	25.784	
6,200.00	5,992.42	6,293.68	5,992.42	25.33	32.18	-179.50	-1,111.04	-1,120.66	1,300.54	1,249.88	50.65	25.676	
6,300.00	6,092.42	6,393.68	6,092.42	25.44	32.26	-179.50	-1,111.04	-1,120.66	1,300.54	1,249.67	50.87	25.567	
6,400.00	6,192.42	6,493.68	6,192.42	25.56	32.35	-179.50	-1,111.04	-1,120.66	1,300.54	1,249.45	51.09	25.457	
6,500.00	6,292.42	6,593.68	6,292.42	25.68	32.43	-179.50	-1,111.04	-1,120.66	1,300.54	1,249.23	51.31	25.347	
6,600.00	6,392.42	6,693.68	6,392.42	25.79	32.51	-179.50	-1,111.04	-1,120.66	1,300.54	1,249.00	51.54	25.236	
6,700.00	6,492.42	6,793.68	6,492.42	25.91	32.60	-179.50	-1,111.04	-1,120.66	1,300.54	1,248.77	51.76	25.124	
6,800.00	6,592.42	6,893.68	6,592.42	26.03	32.68	-179.50	-1,111.04	-1,120.66	1,300.54	1,248.54	52.00	25.013	
6,900.00	6,692.42	6,993.68	6,692.42	26.15	32.77	-179.50	-1,111.04	-1,120.66	1,300.54	1,248.31	52.23	24.901	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02-09 RH												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
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	Warning
7,000.00	6,792.42	7,093.68	6,792.42	26.28	32.86	-179.50	-1,111.04	-1,120.66	1,300.54	1,248.07	52.47	24.788	
7,100.00	6,892.42	7,193.68	6,892.42	26.40	32.95	-179.50	-1,111.04	-1,120.66	1,300.54	1,247.83	52.71	24.676	
7,200.00	6,992.42	7,293.68	6,992.42	26.53	33.04	-179.50	-1,111.04	-1,120.66	1,300.54	1,247.59	52.95	24.563	
7,300.00	7,092.42	7,393.68	7,092.42	26.65	33.14	-179.50	-1,111.04	-1,120.66	1,300.54	1,247.34	53.19	24.449	
7,400.00	7,192.42	7,493.68	7,192.42	26.78	33.23	-179.50	-1,111.04	-1,120.66	1,300.54	1,247.09	53.44	24.336	
7,500.00	7,292.42	7,593.68	7,292.42	26.91	33.33	-179.50	-1,111.04	-1,120.66	1,300.54	1,246.84	53.69	24.223	
7,600.00	7,392.42	7,693.68	7,392.42	27.04	33.42	-179.50	-1,111.04	-1,120.66	1,300.54	1,246.59	53.94	24.109	
7,700.00	7,492.42	7,793.68	7,492.42	27.17	33.52	-179.50	-1,111.04	-1,120.66	1,300.54	1,246.34	54.20	23.996	
7,776.58	7,569.00	7,870.26	7,569.00	27.28	33.60	-179.50	-1,111.04	-1,120.66	1,300.54	1,246.14	54.40	23.908	



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												Offset Well Error:	0.00 ft
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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.13	0.00	29.13				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	29.13	0.00	29.13	28.93	0.19	152.451	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	29.13	0.00	29.13	28.49	0.64	45.468	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	29.13	0.00	29.13	28.04	1.09	26.718	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	29.13	0.00	29.13	27.59	1.54	18.917	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	29.13	0.00	29.13	27.14	1.99	14.642	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	29.13	0.00	29.13	26.69	2.44	11.943	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	29.13	0.00	29.13	26.24	2.89	10.084	
800.00	800.00	800.00	800.00	1.67	1.67	0.00	29.13	0.00	29.13	25.79	3.34	8.726	
900.00	900.00	900.00	900.00	1.89	1.89	0.00	29.13	0.00	29.13	25.34	3.79	7.690	
952.26	952.25	952.18	952.18	2.01	2.00	82.16	29.18	0.47	29.11	25.10	4.01	7.258 CC	
1,000.00	999.98	999.77	999.75	2.11	2.11	87.07	29.31	1.73	29.22	25.00	4.21	6.933 ES	
1,100.00	1,099.84	1,098.84	1,098.68	2.32	2.31	105.74	29.85	6.86	31.81	27.18	4.63	6.872 SF	
1,200.00	1,199.45	1,196.50	1,195.97	2.54	2.53	127.32	30.73	15.25	41.76	36.72	5.04	8.282	
1,300.00	1,298.70	1,292.12	1,290.90	2.79	2.77	142.71	31.92	26.65	61.09	55.65	5.44	11.231	
1,400.00	1,397.47	1,385.09	1,382.78	3.07	3.02	151.84	33.40	40.75	88.84	83.02	5.83	15.251	
1,500.00	1,495.62	1,474.90	1,471.05	3.39	3.30	157.24	35.13	57.18	123.87	117.66	6.20	19.964	
1,600.00	1,593.06	1,561.10	1,555.25	3.76	3.61	160.57	37.05	75.53	165.40	158.82	6.58	25.147	
1,700.00	1,689.64	1,643.33	1,635.02	4.20	3.94	162.72	39.14	95.37	212.91	205.97	6.94	30.661	
1,800.00	1,785.27	1,721.31	1,710.10	4.69	4.28	164.16	41.33	116.29	265.96	258.65	7.30	36.410	
1,900.00	1,879.82	1,794.83	1,780.35	5.26	4.64	165.12	43.60	137.86	324.14	316.49	7.66	42.320	
2,000.00	1,973.17	1,863.78	1,845.71	5.90	5.03	165.77	45.89	159.72	387.09	379.08	8.01	48.325	
2,100.00	2,065.21	1,928.09	1,906.17	6.61	5.41	166.20	48.18	181.51	454.44	446.08	8.36	54.382	
2,136.22	2,098.21	1,950.24	1,926.87	6.89	5.55	166.30	49.00	189.32	479.85	471.37	8.48	56.577	
2,200.00	2,156.14	1,988.19	1,962.21	7.39	5.79	166.73	50.44	203.09	525.36	516.59	8.76	59.942	
2,300.00	2,246.98	2,045.68	2,015.39	8.20	6.19	167.26	52.72	224.82	597.89	588.68	9.21	64.891	
2,400.00	2,337.81	2,100.00	2,065.21	9.02	6.57	167.65	54.98	246.32	671.78	662.12	9.66	69.511	
2,500.00	2,428.64	2,159.92	2,119.76	9.86	7.03	168.00	57.57	270.98	746.81	736.68	10.13	73.699	
2,600.00	2,519.47	2,225.75	2,179.62	10.70	7.55	168.31	60.43	298.23	822.03	811.41	10.62	77.406	
2,700.00	2,610.31	2,291.58	2,239.48	11.55	8.07	168.57	63.29	325.48	897.26	886.15	11.11	80.746	
2,800.00	2,701.14	2,357.42	2,299.34	12.40	8.60	168.79	66.15	352.73	972.50	960.89	11.61	83.757	
2,900.00	2,791.97	2,423.25	2,359.20	13.26	9.14	168.97	69.01	379.98	1,047.74	1,035.62	12.11	86.491	
3,000.00	2,882.81	2,489.09	2,419.07	14.13	9.68	169.14	71.87	407.23	1,122.98	1,110.36	12.62	88.976	
3,100.00	2,973.64	2,554.92	2,478.93	14.99	10.22	169.28	74.73	434.48	1,198.23	1,185.10	13.13	91.239	
3,200.00	3,064.47	2,620.75	2,538.79	15.86	10.77	169.41	77.59	461.73	1,273.48	1,259.84	13.65	93.313	
3,300.00	3,155.31	2,686.59	2,598.65	16.73	11.32	169.52	80.45	488.98	1,348.74	1,334.57	14.17	95.216	
3,400.00	3,246.14	2,752.42	2,658.51	17.61	11.88	169.62	83.31	516.23	1,423.99	1,409.31	14.69	96.964	
3,500.00	3,336.97	2,818.25	2,718.37	18.48	12.43	169.71	86.17	543.48	1,499.25	1,484.04	15.21	98.579	
3,571.36	3,401.79	2,865.23	2,761.09	19.10	12.83	169.76	88.21	562.92	1,552.96	1,537.37	15.58	99.656	
3,600.00	3,427.86	2,884.19	2,778.33	19.33	12.99	169.90	89.03	570.77	1,574.42	1,558.64	15.77	99.805	
3,700.00	3,519.81	2,952.04	2,840.02	19.99	13.57	170.32	91.98	598.85	1,647.86	1,631.44	16.43	100.318	
3,800.00	3,613.06	3,022.38	2,903.98	20.61	14.17	170.67	95.03	627.97	1,718.94	1,701.87	17.07	100.695	
3,900.00	3,707.53	3,095.13	2,970.13	21.17	14.79	170.96	98.19	658.08	1,787.54	1,769.84	17.71	100.962	
4,000.00	3,803.07	3,170.19	3,038.38	21.69	15.43	171.20	101.45	689.15	1,853.60	1,835.28	18.33	101.136	
4,100.00	3,899.59	3,247.48	3,108.66	22.15	16.09	171.40	104.81	721.14	1,917.03	1,898.10	18.94	101.238	
4,200.00	3,996.96	3,326.90	3,180.87	22.55	16.78	171.56	108.26	754.01	1,977.76	1,958.23	19.53	101.279	
4,300.00	4,095.07	3,408.36	3,254.94	22.91	17.48	171.69	111.80	787.73	2,035.71	2,015.61	20.10	101.271	
4,400.00	4,193.79	3,491.75	3,330.77	23.21	18.20	171.78	115.42	822.25	2,090.82	2,070.16	20.66	101.221	
4,500.00	4,293.01	3,576.98	3,408.27	23.46	18.93	171.85	119.13	857.52	2,143.01	2,121.82	21.19	101.137	
4,600.00	4,392.60	3,663.94	3,487.33	23.66	19.68	171.90	122.90	893.52	2,192.24	2,170.54	21.70	101.025	
4,700.00	4,492.44	3,752.52	3,567.88	23.82	20.45	171.92	126.75	930.18	2,238.43	2,216.24	22.19	100.889	
4,807.58	4,600.00	3,849.51	3,656.07	23.93	21.29	91.61	130.97	970.33	2,284.68	2,262.00	22.68	100.721	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
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	Warning
4,900.00	4,692.42	3,933.54	3,732.48	24.01	22.02	91.49	134.62	1,005.11	2,322.87	2,299.76	23.11	100.503	
5,000.00	4,792.42	4,024.47	3,815.16	24.10	22.81	91.35	138.57	1,042.75	2,364.20	2,340.62	23.58	100.247	
5,100.00	4,892.42	4,115.40	3,897.84	24.19	23.59	91.23	142.52	1,080.38	2,405.54	2,381.49	24.06	99.994	
5,200.00	4,992.42	4,206.33	3,980.52	24.29	24.38	91.11	146.47	1,118.02	2,446.89	2,422.36	24.53	99.744	
5,300.00	5,092.42	4,678.85	4,422.77	24.38	27.28	90.62	163.68	1,282.01	2,483.56	2,457.46	26.09	95.180	
5,400.00	5,192.42	5,409.05	5,143.11	24.48	29.32	90.34	174.84	1,388.31	2,498.26	2,470.47	27.79	89.895	
5,500.00	5,292.42	5,558.36	5,292.42	24.58	29.45	90.33	174.89	1,388.87	2,498.34	2,470.15	28.19	88.636	
5,600.00	5,392.42	5,658.36	5,392.42	24.69	29.54	90.33	174.89	1,388.87	2,498.34	2,469.83	28.51	87.617	
5,700.00	5,492.42	5,758.36	5,492.42	24.79	29.62	90.33	174.89	1,388.87	2,498.34	2,469.49	28.85	86.612	
5,800.00	5,592.42	5,858.36	5,592.42	24.89	29.71	90.33	174.89	1,388.87	2,498.34	2,469.16	29.18	85.621	
5,900.00	5,692.42	5,958.36	5,692.42	25.00	29.80	90.33	174.89	1,388.87	2,498.34	2,468.82	29.52	84.643	
6,000.00	5,792.42	6,058.36	5,792.42	25.11	29.89	90.33	174.89	1,388.87	2,498.34	2,468.48	29.86	83.679	
6,100.00	5,892.42	6,158.36	5,892.42	25.22	29.98	90.33	174.89	1,388.87	2,498.34	2,468.14	30.20	82.729	
6,200.00	5,992.42	6,258.36	5,992.42	25.33	30.08	90.33	174.89	1,388.87	2,498.34	2,467.79	30.54	81.793	
6,300.00	6,092.42	6,358.36	6,092.42	25.44	30.17	90.33	174.89	1,388.87	2,498.34	2,467.45	30.89	80.871	
6,400.00	6,192.42	6,458.36	6,192.42	25.56	30.27	90.33	174.89	1,388.87	2,498.34	2,467.10	31.24	79.963	
6,500.00	6,292.42	6,558.36	6,292.42	25.68	30.37	90.33	174.89	1,388.87	2,498.34	2,466.74	31.60	79.069	
6,600.00	6,392.42	6,658.36	6,392.42	25.79	30.47	90.33	174.89	1,388.87	2,498.34	2,466.39	31.95	78.189	
6,700.00	6,492.42	6,758.36	6,492.42	25.91	30.57	90.33	174.89	1,388.87	2,498.34	2,466.03	32.31	77.322	
6,800.00	6,592.42	6,858.36	6,592.42	26.03	30.67	90.33	174.89	1,388.87	2,498.34	2,465.67	32.67	76.469	
6,900.00	6,692.42	6,958.36	6,692.42	26.15	30.77	90.33	174.89	1,388.87	2,498.34	2,465.31	33.03	75.630	
7,000.00	6,792.42	7,058.36	6,792.42	26.28	30.88	90.33	174.89	1,388.87	2,498.34	2,464.94	33.40	74.805	
7,100.00	6,892.42	7,158.36	6,892.42	26.40	30.98	90.33	174.89	1,388.87	2,498.34	2,464.57	33.76	73.992	
7,200.00	6,992.42	7,258.36	6,992.42	26.53	31.09	90.33	174.89	1,388.87	2,498.34	2,464.21	34.13	73.193	
7,300.00	7,092.42	7,358.36	7,092.42	26.65	31.20	90.33	174.89	1,388.87	2,498.34	2,463.84	34.50	72.407	
7,400.00	7,192.42	7,458.36	7,192.42	26.78	31.31	90.33	174.89	1,388.87	2,498.34	2,463.46	34.88	71.634	
7,500.00	7,292.42	7,558.36	7,292.42	26.91	31.42	90.33	174.89	1,388.87	2,498.34	2,463.09	35.25	70.874	
7,600.00	7,392.42	7,658.36	7,392.42	27.04	31.53	90.33	174.89	1,388.87	2,498.34	2,462.71	35.63	70.126	
7,700.00	7,492.42	7,758.36	7,492.42	27.17	31.64	90.33	174.89	1,388.87	2,498.34	2,462.34	36.00	69.391	
7,776.58	7,569.00	7,834.94	7,569.00	27.28	31.73	90.33	174.89	1,388.87	2,498.34	2,462.05	36.29	68.836	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROBERT E BALDWIN												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												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	
0.00	0.00	0.00	0.00	0.00	0.00	122.29	-30.94	48.97	57.92				
100.00	100.00	100.00	100.00	0.10	1.70	122.29	-30.94	48.97	57.92	56.13	1.80	32.259	
200.00	200.00	200.00	200.00	0.32	5.70	122.29	-30.94	48.97	57.92	51.90	6.02	9.621	
300.00	300.00	300.00	300.00	0.55	9.70	122.29	-30.94	48.97	57.92	47.68	10.25	5.654	
400.00	400.00	400.00	400.00	0.77	13.70	122.29	-30.94	48.97	57.92	43.45	14.47	4.003	
500.00	500.00	500.00	500.00	0.99	17.70	122.29	-30.94	48.97	57.92	39.23	18.69	3.098	
600.00	600.00	600.00	600.00	1.22	21.70	122.29	-30.94	48.97	57.92	35.00	22.92	2.527	
700.00	700.00	700.00	700.00	1.44	25.70	122.29	-30.94	48.97	57.92	30.78	27.14	2.134	
800.00	800.00	800.00	800.00	1.67	29.70	122.29	-30.94	48.97	57.92	26.55	31.37	1.847	
900.00	900.00	900.00	900.00	1.89	33.70	122.29	-30.94	48.97	57.92	22.33	35.59	1.627 CC	
1,000.00	999.98	999.98	999.98	2.11	37.70	-158.03	-30.94	48.97	59.54	19.75	39.79	1.496 Level 3, ES	
1,100.00	1,099.84	1,099.84	1,099.84	2.32	41.69	-159.74	-30.94	48.97	64.42	20.50	43.92	1.467 Level 3, SF	
1,200.00	1,199.45	1,199.45	1,199.45	2.54	45.68	-162.07	-30.94	48.97	72.66	24.68	47.98	1.514	
1,300.00	1,298.70	1,298.70	1,298.70	2.79	49.65	-164.55	-30.94	48.97	84.35	32.40	51.95	1.624	
1,400.00	1,397.47	1,397.47	1,397.47	3.07	53.60	-166.88	-30.94	48.97	99.52	43.72	55.80	1.784	
1,500.00	1,495.62	1,495.62	1,495.62	3.39	57.52	-168.91	-30.94	48.97	118.19	58.68	59.51	1.986	
1,600.00	1,593.06	1,593.06	1,593.06	3.76	61.42	-170.60	-30.94	48.97	140.35	77.27	63.08	2.225	
1,700.00	1,689.64	1,689.64	1,689.64	4.20	65.29	-171.99	-30.94	48.97	165.95	99.47	66.48	2.496	
1,800.00	1,785.27	1,785.27	1,785.27	4.69	69.11	-173.11	-30.94	48.97	194.96	125.26	69.70	2.797	
1,900.00	1,879.82	1,879.82	1,879.82	5.26	72.89	-174.02	-30.94	48.97	227.34	154.61	72.73	3.126	
2,000.00	1,973.17	1,973.17	1,973.17	5.90	76.63	-174.77	-30.94	48.97	263.02	187.47	75.55	3.482	
2,100.00	2,065.21	2,065.21	2,065.21	6.61	80.31	-175.37	-30.94	48.97	301.97	223.82	78.15	3.864	
2,136.22	2,098.21	2,098.21	2,098.21	6.89	81.63	-175.57	-30.94	48.97	316.87	237.84	79.03	4.009	
2,200.00	2,156.14	2,156.14	2,156.14	7.39	83.95	-175.91	-30.94	48.97	343.49	262.16	81.33	4.223	
2,300.00	2,246.98	2,246.98	2,246.98	8.20	87.58	-176.35	-30.94	48.97	385.23	300.29	84.95	4.535	
2,400.00	2,337.81	2,337.81	2,337.81	9.02	91.21	-176.71	-30.94	48.97	427.00	338.43	88.57	4.821	
2,500.00	2,428.64	2,428.64	2,428.64	9.86	94.85	-177.00	-30.94	48.97	468.77	376.57	92.20	5.084	
2,600.00	2,519.47	2,519.47	2,519.47	10.70	98.48	-177.25	-30.94	48.97	510.55	414.72	95.84	5.327	
2,700.00	2,610.31	2,610.31	2,610.31	11.55	102.11	-177.46	-30.94	48.97	552.34	452.87	99.48	5.552	
2,800.00	2,701.14	2,701.14	2,701.14	12.40	105.75	-177.64	-30.94	48.97	594.14	491.02	103.12	5.762	
2,900.00	2,791.97	2,791.97	2,791.97	13.26	109.38	-177.79	-30.94	48.97	635.93	529.17	106.77	5.956	
3,000.00	2,882.81	2,882.81	2,882.81	14.13	113.01	-177.93	-30.94	48.97	677.73	567.32	110.41	6.138	
3,100.00	2,973.64	2,973.64	2,973.64	14.99	116.65	-178.05	-30.94	48.97	719.54	605.47	114.06	6.308	
3,200.00	3,064.47	3,064.47	3,064.47	15.86	120.28	-178.16	-30.94	48.97	761.34	643.63	117.72	6.468	
3,300.00	3,155.31	3,155.31	3,155.31	16.73	123.91	-178.25	-30.94	48.97	803.15	681.78	121.37	6.617	
3,400.00	3,246.14	3,246.14	3,246.14	17.61	127.55	-178.34	-30.94	48.97	844.96	719.94	125.03	6.758	
3,500.00	3,336.97	3,336.97	3,336.97	18.48	131.18	-178.42	-30.94	48.97	886.77	758.09	128.69	6.891	
3,571.36	3,401.79	3,401.79	3,401.79	19.10	133.77	-178.47	-30.94	48.97	916.61	785.32	131.30	6.981	
3,600.00	3,427.86	3,427.86	3,427.86	19.33	134.81	-178.49	-30.94	48.97	928.46	795.57	132.89	6.987	
3,700.00	3,519.81	3,519.81	3,519.81	19.99	138.49	-178.58	-30.94	48.97	967.76	829.33	138.43	6.991	
3,800.00	3,613.06	3,613.06	3,613.06	20.61	142.22	-178.65	-30.94	48.97	1,003.83	859.90	143.93	6.974	
3,900.00	3,707.53	3,707.53	3,707.53	21.17	146.00	-178.71	-30.94	48.97	1,036.63	887.23	149.40	6.939	
4,000.00	3,803.07	3,803.07	3,803.07	21.69	149.82	-178.75	-30.94	48.97	1,066.11	911.27	154.84	6.885	
4,100.00	3,899.59	3,899.59	3,899.59	22.15	153.68	-178.80	-30.94	48.97	1,092.24	932.05	160.20	6.818	
4,200.00	3,996.96	3,996.96	3,996.96	22.55	157.58	-178.83	-30.94	48.97	1,114.99	949.55	165.44	6.740	
4,300.00	4,095.07	4,095.07	4,095.07	22.91	161.50	-178.86	-30.94	48.97	1,134.33	963.77	170.55	6.651	
4,400.00	4,193.79	4,193.79	4,193.79	23.21	165.45	-178.88	-30.94	48.97	1,150.23	974.71	175.52	6.553	
4,500.00	4,293.01	4,293.01	4,293.01	23.46	169.42	-178.90	-30.94	48.97	1,162.67	982.36	180.31	6.448	
4,600.00	4,392.60	4,392.60	4,392.60	23.66	173.40	-178.91	-30.94	48.97	1,171.65	986.74	184.91	6.336	
4,700.00	4,492.44	4,492.44	4,492.44	23.82	177.40	-178.92	-30.94	48.97	1,177.15	987.84	189.31	6.218	
4,807.58	4,600.00	4,600.00	4,600.00	23.93	181.70	100.77	-30.94	48.97	1,179.17	985.38	193.79	6.085	
4,900.00	4,692.42	4,692.42	4,692.42	24.01	185.40	100.77	-30.94	48.97	1,179.17	981.54	197.63	5.967	

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



Weatherford International Ltd.

Anticollision Report



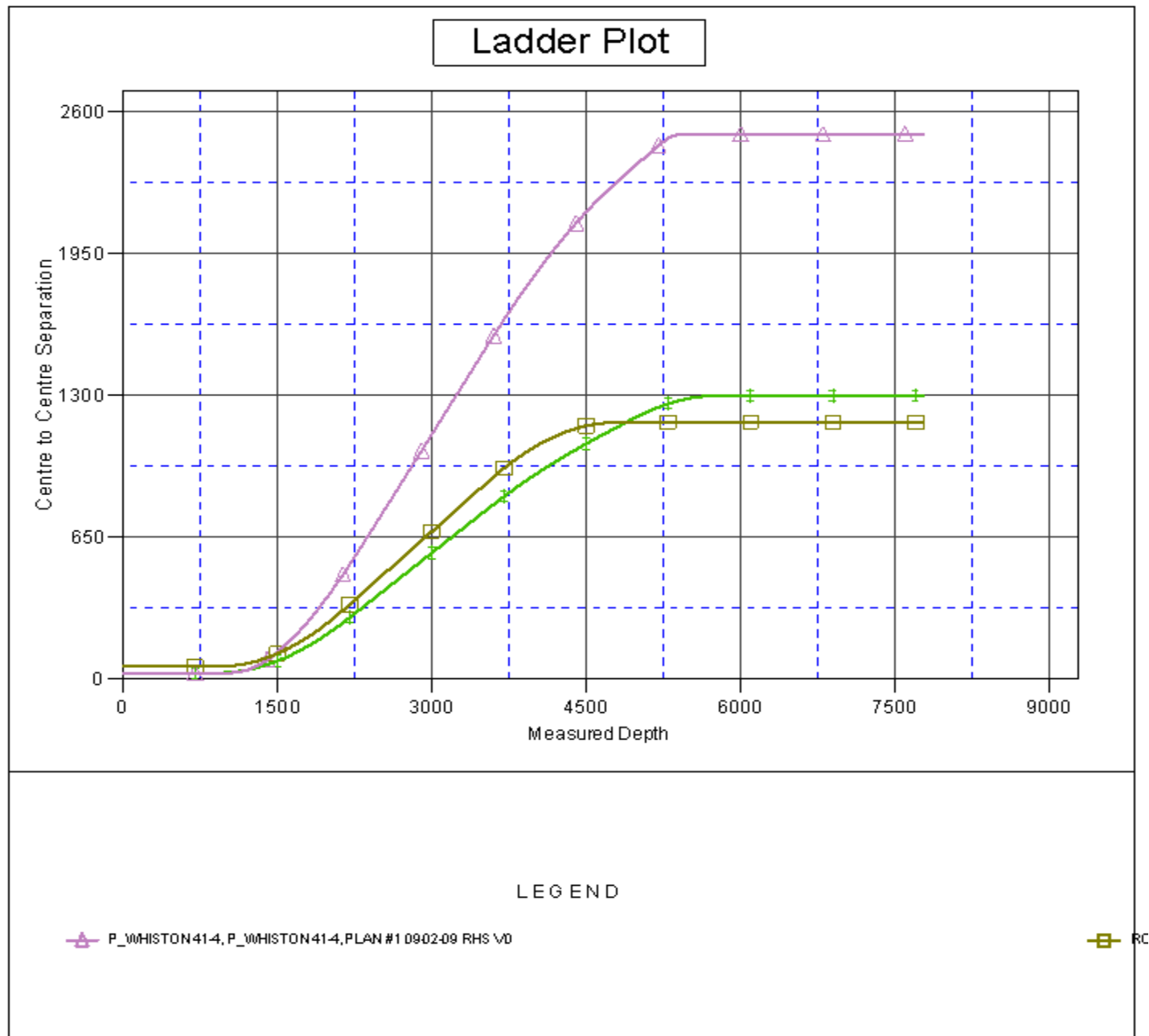
Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design		WELD_WHISTON 3 PAD - ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROBERT E BALDWIN										Offset Site Error: 0.00 ft		
Survey Program: 0-UNKNOWN												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		
5,000.00	4,792.42	4,792.42	4,792.42	24.10	189.40	100.77	-30.94	48.97	1,179.17	977.37	201.79	5.843		
5,100.00	4,892.42	4,892.42	4,892.42	24.19	193.40	100.77	-30.94	48.97	1,179.17	973.20	205.96	5.725		
5,200.00	4,992.42	4,992.42	4,992.42	24.29	197.40	100.77	-30.94	48.97	1,179.17	969.04	210.13	5.612		
5,300.00	5,092.42	5,092.42	5,092.42	24.38	201.40	100.77	-30.94	48.97	1,179.17	964.86	214.30	5.502		
5,400.00	5,192.42	5,192.42	5,192.42	24.48	205.40	100.77	-30.94	48.97	1,179.17	960.69	218.48	5.397		
5,500.00	5,292.42	5,292.42	5,292.42	24.58	209.40	100.77	-30.94	48.97	1,179.17	956.52	222.65	5.296		
5,600.00	5,392.42	5,392.42	5,392.42	24.69	213.40	100.77	-30.94	48.97	1,179.17	952.34	226.83	5.199		
5,700.00	5,492.42	5,492.42	5,492.42	24.79	217.40	100.77	-30.94	48.97	1,179.17	948.16	231.00	5.105		
5,800.00	5,592.42	5,592.42	5,592.42	24.89	221.40	100.77	-30.94	48.97	1,179.17	943.98	235.18	5.014		
5,900.00	5,692.42	5,692.42	5,692.42	25.00	225.40	100.77	-30.94	48.97	1,179.17	939.80	239.36	4.926		
6,000.00	5,792.42	5,792.42	5,792.42	25.11	229.40	100.77	-30.94	48.97	1,179.17	935.62	243.54	4.842		
6,100.00	5,892.42	5,892.42	5,892.42	25.22	233.40	100.77	-30.94	48.97	1,179.17	931.44	247.73	4.760		
6,200.00	5,992.42	5,992.42	5,992.42	25.33	237.40	100.77	-30.94	48.97	1,179.17	927.26	251.91	4.681		
6,300.00	6,092.42	6,092.42	6,092.42	25.44	241.40	100.77	-30.94	48.97	1,179.17	923.07	256.09	4.604		
6,400.00	6,192.42	6,192.42	6,192.42	25.56	245.40	100.77	-30.94	48.97	1,179.17	918.89	260.28	4.530		
6,500.00	6,292.42	6,292.42	6,292.42	25.68	249.40	100.77	-30.94	48.97	1,179.17	914.70	264.47	4.459		
6,600.00	6,392.42	6,392.42	6,392.42	25.79	253.40	100.77	-30.94	48.97	1,179.17	910.51	268.66	4.389		
6,700.00	6,492.42	6,492.42	6,492.42	25.91	257.40	100.77	-30.94	48.97	1,179.17	906.32	272.85	4.322		
6,800.00	6,592.42	6,592.42	6,592.42	26.03	261.40	100.77	-30.94	48.97	1,179.17	902.13	277.04	4.256		
6,900.00	6,692.42	6,692.42	6,692.42	26.15	265.40	100.77	-30.94	48.97	1,179.17	897.94	281.23	4.193		
7,000.00	6,792.42	6,792.42	6,792.42	26.28	269.40	100.77	-30.94	48.97	1,179.17	893.75	285.42	4.131		
7,100.00	6,892.42	6,892.42	6,892.42	26.40	273.40	100.77	-30.94	48.97	1,179.17	889.56	289.61	4.072		
7,200.00	6,992.42	6,992.42	6,992.42	26.53	277.40	100.77	-30.94	48.97	1,179.17	885.36	293.80	4.013		
7,300.00	7,092.42	7,092.42	7,092.42	26.65	281.40	100.77	-30.94	48.97	1,179.17	881.17	298.00	3.957		
7,400.00	7,192.42	7,192.42	7,192.42	26.78	285.40	100.77	-30.94	48.97	1,179.17	876.97	302.19	3.902		
7,500.00	7,292.42	7,292.42	7,292.42	26.91	289.40	100.77	-30.94	48.97	1,179.17	872.78	306.39	3.849		
7,600.00	7,392.42	7,392.42	7,392.42	27.04	293.40	100.77	-30.94	48.97	1,179.17	868.58	310.59	3.797		
7,700.00	7,492.42	7,492.42	7,492.42	27.17	297.40	100.77	-30.94	48.97	1,179.17	864.38	314.78	3.746		
7,776.58	7,569.00	7,569.00	7,569.00	27.28	300.46	100.77	-30.94	48.97	1,179.17	861.17	318.00	3.708		



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4907.00ft (Original Well Elev) Coordinates are relative to: P_WHISTON 21-4
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°

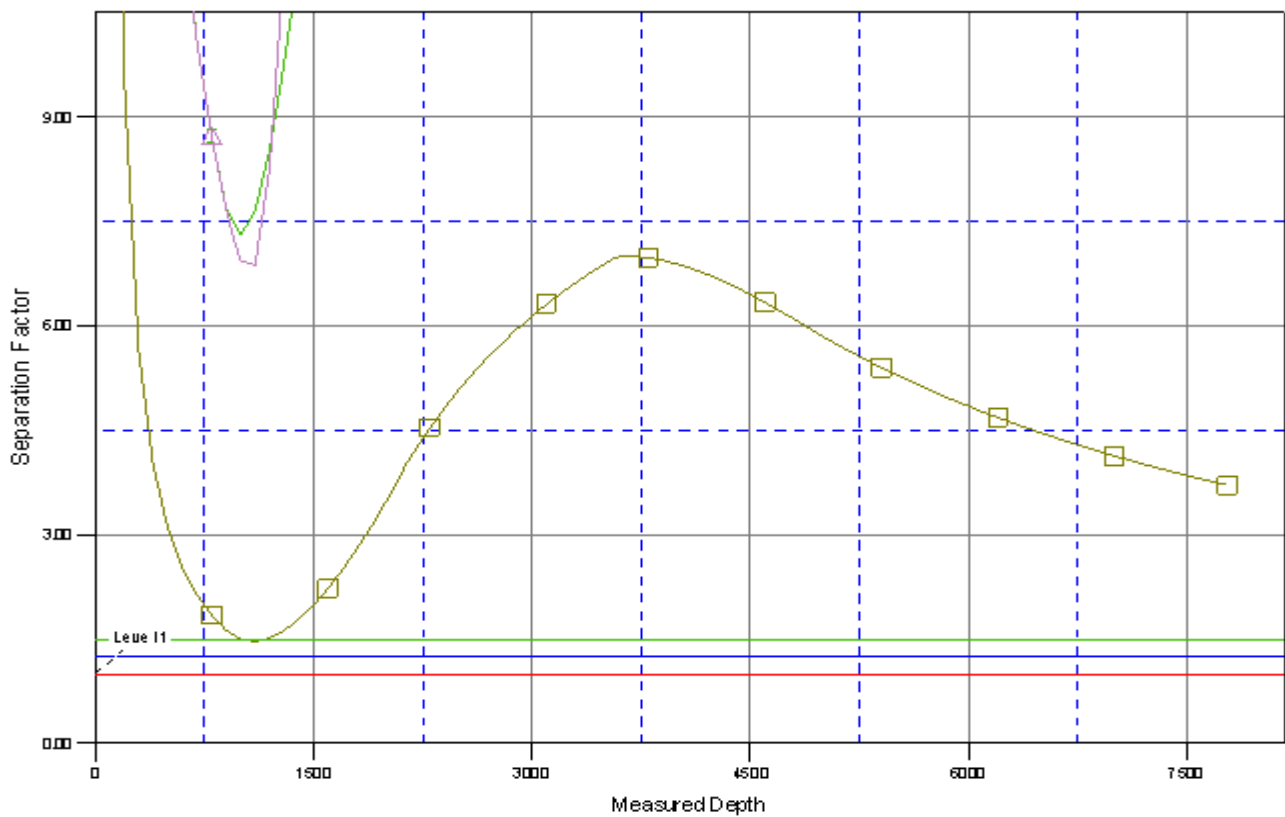




Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 21-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 21-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 21-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4907.00ft (Original Well Elev)Coordinates are relative to: P_WHISTON 21-4
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W °
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

△ P_WHISTON41-4, P_WHISTON41-4, PLAN #1 09-02-09 RHS V/D

□ RC