



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_WHISTON 3 PAD

P_WHISTON 41-4

P_WHISTON 41-4

Plan: PLAN #1 09-02-09 RHS

Standard Planning Report

02 September, 2009





P_WHISTON 41-4
KERR MCGEE OIL & GAS ONSHORE LP
SECTION 4 T2N R67W
1579 FNL 1437 FEL
LAT: 40° 10' 14.196 N
LONG: 104° 53' 27.240 W



Azimuths to True North
Magnetic North: 9.11°
Magnetic Field
Strength: 53203.2snT
Dip Angle: 66.91°
Date: 9/2/2009
Model: IGRF200510

WELL DETAILS: P_WHISTON 41-4

+N/-S	+E/-W	Northing	Ground Level: Easting	4892.00 Latitude	Longitude	Slot
0.00	0.00	1305580.78	3170213.32	40° 10' 14.196 N	104° 53' 27.240 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3938.00	4159.57	PARKMAN
4474.00	4731.93	SUSSEX TOP
4901.00	5166.39	SHANNON TOP
7154.00	7419.94	NIO A TOP
7414.00	7679.94	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	
2129.70	24.59	84.01	2092.29	27.13	258.48	2.00	84.01	259.90	
4236.24	24.59	84.01	4007.71	118.64	1130.40	0.00	0.00	1136.61	
5465.94	0.00	0.00	5200.00	145.77	1388.87	2.00	180.00	1396.50	
7839.94	0.00	0.00	7574.00	145.77	1388.87	0.00	0.00	1396.50	PBHL_WHISTON 41-4(1400 FNL 50 FEL)50' TGT RAD

CASING DETAILS

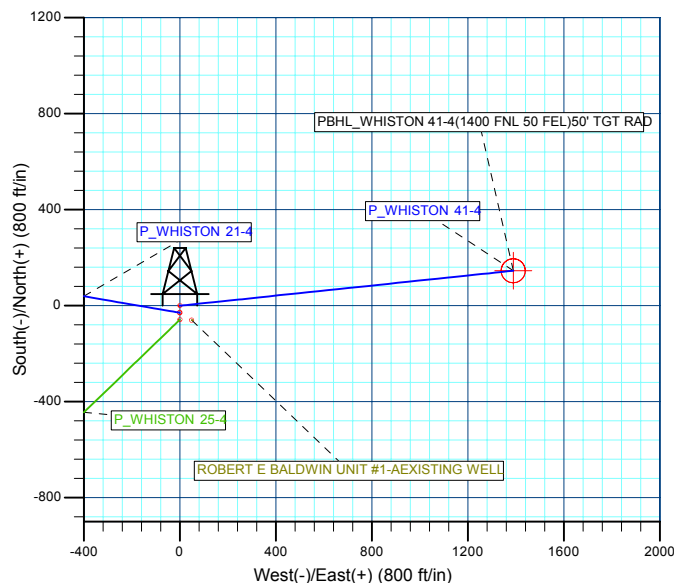
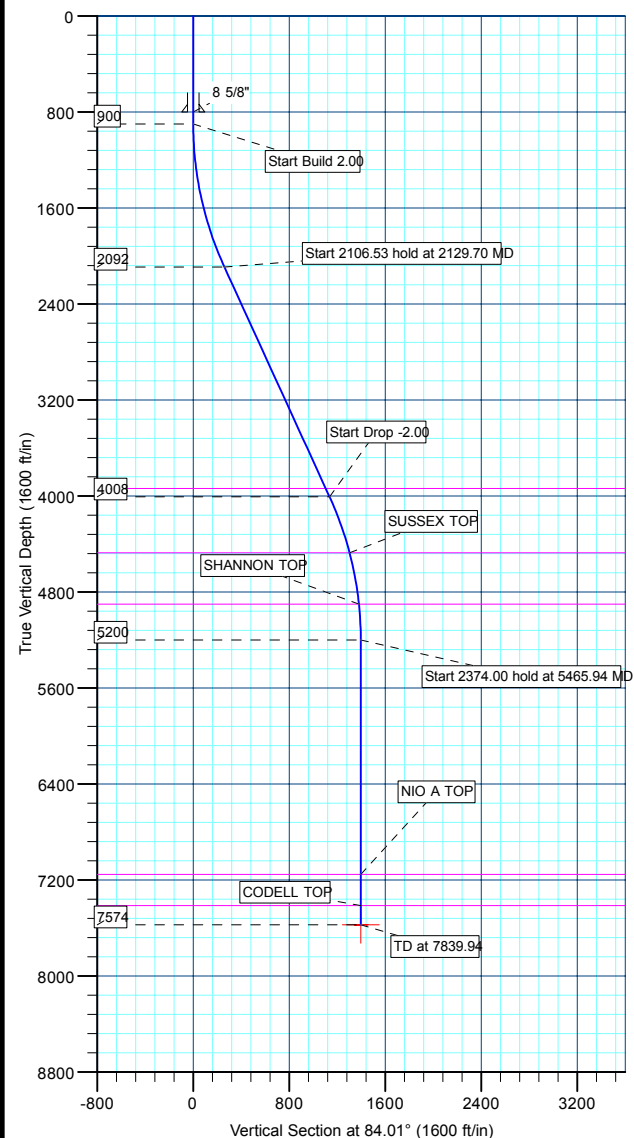
TVD	MD	Name	Size
800.00	800.00	8 5/8"	8.62

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7574.00	145.77	1388.87	1305736.08	3171601.15	40° 10' 15.636 N	104° 53' 9.348 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 41-4/P_WHISTON 41-4)

Created By: Robert H. Scott



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 41-4		
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 41-4					
Well Position	+N/-S	29.13 ft	Northing:	1,305,580.78 ft	Latitude:	40° 10' 14.196 N
	+E/-W	0.00 ft	Easting:	3,170,213.32 ft	Longitude:	104° 53' 27.240 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,892.00 ft

Wellbore	P_WHISTON 41-4				
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	84.01

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	
2,129.70	24.59	84.01	2,092.29	27.13	258.48	2.00	2.00	0.00	84.01	
4,236.24	24.59	84.01	4,007.71	118.64	1,130.40	0.00	0.00	0.00	0.00	
5,465.94	0.00	0.00	5,200.00	145.77	1,388.87	2.00	-2.00	0.00	180.00	
7,839.94	0.00	0.00	7,574.00	145.77	1,388.87	0.00	0.00	0.00	0.00	PBHL_WHISTON 4



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 41-4		
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)
Start Build 2.00									
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	84.01	999.98	0.18	1.74	1.75	2.00	2.00	0.00
1,100.00	4.00	84.01	1,099.84	0.73	6.94	6.98	2.00	2.00	0.00
1,200.00	6.00	84.01	1,199.45	1.64	15.61	15.69	2.00	2.00	0.00
1,300.00	8.00	84.01	1,298.70	2.91	27.73	27.88	2.00	2.00	0.00
1,400.00	10.00	84.01	1,397.47	4.54	43.28	43.52	2.00	2.00	0.00
1,500.00	12.00	84.01	1,495.62	6.53	62.26	62.60	2.00	2.00	0.00
1,600.00	14.00	84.01	1,593.06	8.88	84.63	85.10	2.00	2.00	0.00
1,700.00	16.00	84.01	1,689.64	11.58	110.37	110.98	2.00	2.00	0.00
1,800.00	18.00	84.01	1,785.27	14.64	139.45	140.21	2.00	2.00	0.00
1,900.00	20.00	84.01	1,879.82	18.03	171.82	172.77	2.00	2.00	0.00
2,000.00	22.00	84.01	1,973.17	21.77	207.46	208.60	2.00	2.00	0.00
2,100.00	24.00	84.01	2,065.21	25.85	246.32	247.67	2.00	2.00	0.00
Start 2106.53 hold at 2129.70 MD									
2,129.70	24.59	84.01	2,092.29	27.13	258.48	259.90	2.00	2.00	0.00
2,200.00	24.59	84.01	2,156.21	30.18	287.57	289.15	0.00	0.00	0.00
2,300.00	24.59	84.01	2,247.13	34.53	328.96	330.77	0.00	0.00	0.00
2,400.00	24.59	84.01	2,338.06	38.87	370.36	372.39	0.00	0.00	0.00
2,500.00	24.59	84.01	2,428.99	43.21	411.75	414.01	0.00	0.00	0.00
2,600.00	24.59	84.01	2,519.92	47.56	453.14	455.63	0.00	0.00	0.00
2,700.00	24.59	84.01	2,610.85	51.90	494.53	497.25	0.00	0.00	0.00
2,800.00	24.59	84.01	2,701.77	56.25	535.92	538.86	0.00	0.00	0.00
2,900.00	24.59	84.01	2,792.70	60.59	577.31	580.48	0.00	0.00	0.00
3,000.00	24.59	84.01	2,883.63	64.94	618.70	622.10	0.00	0.00	0.00
3,100.00	24.59	84.01	2,974.56	69.28	660.10	663.72	0.00	0.00	0.00
3,200.00	24.59	84.01	3,065.49	73.62	701.49	705.34	0.00	0.00	0.00
3,300.00	24.59	84.01	3,156.41	77.97	742.88	746.96	0.00	0.00	0.00
3,400.00	24.59	84.01	3,247.34	82.31	784.27	788.58	0.00	0.00	0.00
3,500.00	24.59	84.01	3,338.27	86.66	825.66	830.20	0.00	0.00	0.00
3,600.00	24.59	84.01	3,429.20	91.00	867.05	871.81	0.00	0.00	0.00
3,700.00	24.59	84.01	3,520.12	95.35	908.44	913.43	0.00	0.00	0.00
3,800.00	24.59	84.01	3,611.05	99.69	949.83	955.05	0.00	0.00	0.00
3,900.00	24.59	84.01	3,701.98	104.03	991.23	996.67	0.00	0.00	0.00
4,000.00	24.59	84.01	3,792.91	108.38	1,032.62	1,038.29	0.00	0.00	0.00
4,100.00	24.59	84.01	3,883.84	112.72	1,074.01	1,079.91	0.00	0.00	0.00
PARKMAN									
4,159.57	24.59	84.01	3,938.00	115.31	1,098.66	1,104.70	0.00	0.00	0.00
4,200.00	24.59	84.01	3,974.76	117.07	1,115.40	1,121.53	0.00	0.00	0.00
Start Drop -2.00									
4,236.24	24.59	84.01	4,007.71	118.64	1,130.40	1,136.61	0.00	0.00	0.00
4,300.00	23.32	84.01	4,065.98	121.34	1,156.15	1,162.50	2.00	-2.00	0.00
4,400.00	21.32	84.01	4,158.49	125.31	1,193.91	1,200.47	2.00	-2.00	0.00
4,500.00	19.32	84.01	4,252.26	128.93	1,228.45	1,235.19	2.00	-2.00	0.00
4,600.00	17.32	84.01	4,347.19	132.21	1,259.70	1,266.62	2.00	-2.00	0.00
4,700.00	15.32	84.01	4,443.15	135.14	1,287.65	1,294.72	2.00	-2.00	0.00
SUSSEX TOP									
4,731.93	14.68	84.01	4,474.00	136.01	1,295.87	1,302.98	2.00	-2.00	0.00
4,800.00	13.32	84.01	4,540.04	137.73	1,312.24	1,319.45	2.00	-2.00	0.00
4,900.00	11.32	84.01	4,637.73	139.95	1,333.46	1,340.78	2.00	-2.00	0.00
5,000.00	9.32	84.01	4,736.11	141.82	1,351.27	1,358.70	2.00	-2.00	0.00
5,100.00	7.32	84.01	4,835.05	143.33	1,365.66	1,373.16	2.00	-2.00	0.00
SHANNON TOP									



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 41-4		
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)
5,166.39	5.99	84.01	4,901.00	144.14	1,373.31	1,380.86	2.00	-2.00	0.00
5,200.00	5.32	84.01	4,934.44	144.48	1,376.61	1,384.17	2.00	-2.00	0.00
5,300.00	3.32	84.01	5,034.15	145.27	1,384.10	1,391.70	2.00	-2.00	0.00
5,400.00	1.32	84.01	5,134.07	145.69	1,388.12	1,395.74	2.00	-2.00	0.00
Start 2374.00 hold at 5465.94 MD									
5,465.94	0.00	0.00	5,200.00	145.77	1,388.87	1,396.50	2.00	-2.00	-127.40
5,500.00	0.00	0.00	5,234.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
5,600.00	0.00	0.00	5,334.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
5,700.00	0.00	0.00	5,434.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
5,800.00	0.00	0.00	5,534.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
5,900.00	0.00	0.00	5,634.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,000.00	0.00	0.00	5,734.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,100.00	0.00	0.00	5,834.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,200.00	0.00	0.00	5,934.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,300.00	0.00	0.00	6,034.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,400.00	0.00	0.00	6,134.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,500.00	0.00	0.00	6,234.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,600.00	0.00	0.00	6,334.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,700.00	0.00	0.00	6,434.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,800.00	0.00	0.00	6,534.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
6,900.00	0.00	0.00	6,634.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,000.00	0.00	0.00	6,734.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,100.00	0.00	0.00	6,834.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,200.00	0.00	0.00	6,934.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,300.00	0.00	0.00	7,034.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,400.00	0.00	0.00	7,134.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
NIO A TOP									
7,419.94	0.00	0.00	7,154.00	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,500.00	0.00	0.00	7,234.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,600.00	0.00	0.00	7,334.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
CODELL TOP									
7,679.94	0.00	0.00	7,414.00	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,700.00	0.00	0.00	7,434.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
7,800.00	0.00	0.00	7,534.06	145.77	1,388.87	1,396.50	0.00	0.00	0.00
PBHL_WHISTON 41-4(1400 FNL 50 FEL)50' TGT RAD									
7,839.94	0.00	0.00	7,574.00	145.77	1,388.87	1,396.50	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_WHISTON 41-4	0.00	0.00	7,574.00	145.77	1,388.87	1,305,736.08	3,171,601.15	40° 10' 15.636 N	104° 53' 9.348 W
- plan hits target center									
- Circle (radius 50.00)									



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 41-4		
Design:	PLAN #1 09-02-09 RHS		

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,159.57	3,938.00	PARKMAN				
4,731.93	4,474.00	SUSSEX TOP				
5,166.39	4,901.00	SHANNON TOP				
7,419.94	7,154.00	NIO A TOP				
7,679.94	7,414.00	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
900.00	900.00	0.00	0.00	Start Build 2.00	
2,129.70	2,092.29	27.13	258.48	Start 2106.53 hold at 2129.70 MD	
4,236.24	4,007.71	118.64	1,130.40	Start Drop -2.00	
5,465.94	5,200.00	145.77	1,388.87	Start 2374.00 hold at 5465.94 MD	
7,839.94	7,574.00	145.77	1,388.87	TD at 7839.94	



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_WHISTON 3 PAD
P_WHISTON 41-4**

**P_WHISTON 41-4
PLAN #1 09-02-09 RHS**

Anticollision Report

02 September, 2009





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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	7,839.94	PLAN #1 09-02-09 RHS (P_WHISTON 41	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 21-4 - P_WHISTON 21-4 - PLAN #1 09-02	952.18	952.26	29.11	25.10	7.258	CC
P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02	1,000.00	1,000.05	29.22	25.00	6.932	ES
P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02	1,100.00	1,099.39	31.83	27.20	6.876	SF
P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02	900.00	900.00	58.28	54.49	15.389	CC, ES
P_WHISTON 25-4 - P_WHISTON 25-4 - PLAN #1 09-02	1,100.00	1,096.37	64.86	60.27	14.134	SF
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	1,393.66	1,391.22	64.85	8.43	1.149	Level 2, CC
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	1,500.00	1,495.62	67.92	7.07	1.116	Level 2, ES, SF

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 21-4 - P_WHISTON 21-4 - 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
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-29.13	0.00	29.13				
100.00	100.00	100.00	100.00	0.10	0.10	-180.00	-29.13	0.00	29.13	28.93	0.19	152.451	
200.00	200.00	200.00	200.00	0.32	0.32	-180.00	-29.13	0.00	29.13	28.49	0.64	45.468	
300.00	300.00	300.00	300.00	0.55	0.55	-180.00	-29.13	0.00	29.13	28.04	1.09	26.718	
400.00	400.00	400.00	400.00	0.77	0.77	-180.00	-29.13	0.00	29.13	27.59	1.54	18.917	
500.00	500.00	500.00	500.00	0.99	0.99	-180.00	-29.13	0.00	29.13	27.14	1.99	14.642	
600.00	600.00	600.00	600.00	1.22	1.22	-180.00	-29.13	0.00	29.13	26.69	2.44	11.943	
700.00	700.00	700.00	700.00	1.44	1.44	-180.00	-29.13	0.00	29.13	26.24	2.89	10.084	
800.00	800.00	800.00	800.00	1.67	1.67	-180.00	-29.13	0.00	29.13	25.79	3.34	8.726	
900.00	900.00	900.00	900.00	1.89	1.89	-180.00	-29.13	0.00	29.13	25.34	3.79	7.690	
952.18	952.18	952.26	952.25	2.00	2.01	97.85	-29.05	-0.47	29.11	25.10	4.01	7.258	CC
1,000.00	999.98	1,000.05	1,000.03	2.11	2.11	102.78	-28.83	-1.72	29.22	25.00	4.22	6.932	ES
1,100.00	1,099.84	1,099.39	1,099.23	2.32	2.32	121.52	-27.96	-6.84	31.83	27.20	4.63	6.876	SF
1,200.00	1,199.45	1,197.32	1,196.78	2.54	2.54	143.17	-26.53	-15.19	41.83	36.79	5.04	8.301	
1,300.00	1,298.70	1,293.18	1,291.95	2.79	2.78	158.61	-24.59	-26.55	61.22	55.79	5.43	11.271	
1,400.00	1,397.47	1,386.39	1,384.06	3.06	3.03	167.81	-22.19	-40.60	89.06	83.25	5.82	15.315	
1,500.00	1,495.62	1,476.42	1,472.54	3.38	3.32	173.31	-19.40	-56.97	124.18	117.99	6.19	20.059	
1,600.00	1,593.06	1,562.82	1,556.92	3.75	3.63	176.78	-16.28	-75.25	165.83	159.27	6.56	25.283	
1,700.00	1,689.64	1,645.23	1,636.85	4.18	3.96	179.09	-12.90	-95.01	213.46	206.55	6.92	30.852	
1,800.00	1,785.27	1,723.37	1,712.08	4.67	4.31	-179.28	-9.35	-115.83	266.64	259.37	7.27	36.675	
1,900.00	1,879.82	1,800.00	1,785.27	5.23	4.69	-178.03	-5.52	-138.21	324.99	317.37	7.62	42.656	

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 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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 21-4 - P_WHISTON 21-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												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
2,000.00	1,973.17	1,866.10	1,847.89	5.86	5.06	-177.14	-1.96	-159.06	388.07	380.12	7.95	48.828	
2,100.00	2,065.21	1,930.51	1,908.43	6.57	5.45	-176.39	1.74	-180.74	455.57	447.30	8.27	55.066	
2,129.70	2,092.29	1,948.74	1,925.47	6.80	5.57	-176.19	2.83	-187.12	476.42	468.05	8.37	56.930	
2,200.00	2,156.21	1,990.78	1,964.61	7.34	5.84	-175.86	5.41	-202.23	526.53	517.85	8.68	60.686	
2,300.00	2,247.13	2,048.48	2,017.96	8.14	6.24	-175.44	9.11	-223.90	599.02	589.90	9.12	65.683	
2,400.00	2,338.06	2,103.81	2,068.69	8.95	6.64	-175.09	12.83	-245.67	672.85	663.28	9.57	70.339	
2,500.00	2,428.99	2,162.17	2,121.78	9.77	7.09	-174.77	16.91	-269.57	747.84	737.81	10.03	74.581	
2,600.00	2,519.92	2,228.01	2,181.58	10.60	7.62	-174.46	21.54	-296.71	823.06	812.54	10.51	78.296	
2,700.00	2,610.85	2,293.84	2,241.38	11.44	8.15	-174.20	26.18	-323.85	898.28	887.28	11.00	81.642	
2,800.00	2,701.77	2,359.67	2,301.18	12.28	8.69	-173.98	30.81	-350.99	973.52	962.02	11.50	84.650	
2,900.00	2,792.70	2,425.51	2,360.98	13.13	9.23	-173.79	35.45	-378.14	1,048.76	1,036.76	12.00	87.379	
3,000.00	2,883.63	2,491.34	2,420.78	13.98	9.78	-173.63	40.08	-405.28	1,124.01	1,111.50	12.51	89.858	
3,100.00	2,974.56	2,557.17	2,480.58	14.83	10.34	-173.49	44.72	-432.42	1,199.26	1,186.24	13.02	92.111	
3,200.00	3,065.49	2,623.01	2,540.37	15.69	10.89	-173.36	49.35	-459.56	1,274.51	1,260.97	13.53	94.174	
3,300.00	3,156.41	2,688.84	2,600.17	16.55	11.45	-173.25	53.99	-486.71	1,349.76	1,335.71	14.05	96.065	
3,400.00	3,247.34	2,754.67	2,659.97	17.41	12.02	-173.15	58.62	-513.85	1,425.02	1,410.45	14.57	97.800	
3,500.00	3,338.27	2,820.51	2,719.77	18.27	12.58	-173.06	63.26	-540.99	1,500.27	1,485.18	15.09	99.402	
3,600.00	3,429.20	2,886.34	2,779.57	19.13	13.15	-172.98	67.89	-568.13	1,575.53	1,559.92	15.62	100.882	
3,700.00	3,520.12	2,952.17	2,839.37	19.99	13.71	-172.90	72.53	-595.27	1,650.79	1,634.65	16.14	102.252	
3,800.00	3,611.05	3,018.01	2,899.16	20.86	14.28	-172.84	77.16	-622.42	1,726.05	1,709.38	16.67	103.526	
3,900.00	3,701.98	3,083.84	2,958.96	21.73	14.85	-172.78	81.80	-649.56	1,801.32	1,784.11	17.20	104.710	
4,000.00	3,792.91	3,149.68	3,018.76	22.59	15.42	-172.72	86.43	-676.70	1,876.58	1,858.84	17.73	105.814	
4,100.00	3,883.84	3,215.51	3,078.56	23.46	16.00	-172.67	91.07	-703.84	1,951.84	1,933.58	18.27	106.847	
4,200.00	3,974.76	3,281.34	3,138.36	24.33	16.57	-172.62	95.70	-730.98	2,027.11	2,008.31	18.80	107.813	
4,236.24	4,007.71	3,305.20	3,160.03	24.64	16.78	-172.60	97.38	-740.82	2,054.38	2,035.38	19.00	108.148	
4,300.00	4,065.98	3,347.70	3,198.63	25.13	17.15	-172.75	100.37	-758.34	2,101.91	2,082.44	19.47	107.966	
4,400.00	4,158.49	3,416.43	3,261.06	25.77	17.75	-172.95	105.21	-786.68	2,174.52	2,154.34	20.18	107.748	
4,500.00	4,252.26	3,487.63	3,325.73	26.36	18.37	-173.12	110.22	-816.03	2,244.70	2,223.83	20.88	107.514	
4,600.00	4,347.19	3,561.20	3,392.56	26.90	19.02	-173.25	115.40	-846.36	2,312.38	2,290.83	21.56	107.273	
4,700.00	4,443.15	3,632.96	3,463.90	27.38	21.34	-173.13	138.03	-978.84	2,373.38	2,350.42	22.96	103.368	
4,800.00	4,540.04	4,447.02	4,240.39	27.81	23.33	-173.18	156.51	-1,087.09	2,418.04	2,393.50	24.54	98.539	
4,900.00	4,637.73	4,845.31	4,637.73	28.19	23.96	-173.40	160.33	-1,109.42	2,442.97	2,417.36	25.61	95.383	
5,000.00	4,736.11	4,943.69	4,736.11	28.52	24.05	-173.49	160.33	-1,109.42	2,460.77	2,434.65	26.12	94.224	
5,100.00	4,835.05	5,042.64	4,835.05	28.79	24.14	-173.56	160.33	-1,109.42	2,475.14	2,448.56	26.58	93.123	
5,200.00	4,934.44	5,142.02	4,934.44	29.02	24.23	-173.62	160.33	-1,109.42	2,486.08	2,459.08	27.00	92.085	
5,300.00	5,034.15	5,241.73	5,034.15	29.19	24.33	-173.65	160.33	-1,109.42	2,493.56	2,466.19	27.37	91.104	
5,400.00	5,134.07	5,341.65	5,134.07	29.32	24.42	-173.67	160.33	-1,109.42	2,497.59	2,469.89	27.70	90.174	
5,465.94	5,200.00	5,407.58	5,200.00	29.37	24.49	-89.67	160.33	-1,109.42	2,498.34	2,470.45	27.89	89.584	
5,500.00	5,234.06	5,441.64	5,234.06	29.40	24.52	-89.67	160.33	-1,109.42	2,498.34	2,470.34	28.00	89.236	
5,600.00	5,334.06	5,541.64	5,334.06	29.49	24.63	-89.67	160.33	-1,109.42	2,498.34	2,470.02	28.32	88.210	
5,700.00	5,434.06	5,641.64	5,434.06	29.57	24.73	-89.67	160.33	-1,109.42	2,498.34	2,469.69	28.65	87.197	
5,800.00	5,534.06	5,741.64	5,534.06	29.66	24.83	-89.67	160.33	-1,109.42	2,498.34	2,469.36	28.98	86.198	
5,900.00	5,634.06	5,841.64	5,634.06	29.75	24.94	-89.67	160.33	-1,109.42	2,498.34	2,469.02	29.32	85.212	
6,000.00	5,734.06	5,941.64	5,734.06	29.84	25.05	-89.67	160.33	-1,109.42	2,498.34	2,468.68	29.66	84.240	
6,100.00	5,834.06	6,041.64	5,834.06	29.93	25.16	-89.67	160.33	-1,109.42	2,498.34	2,468.34	30.00	83.282	
6,200.00	5,934.06	6,141.64	5,934.06	30.02	25.27	-89.67	160.33	-1,109.42	2,498.34	2,468.00	30.34	82.338	
6,300.00	6,034.06	6,241.64	6,034.06	30.12	25.38	-89.67	160.33	-1,109.42	2,498.34	2,467.65	30.69	81.408	
6,400.00	6,134.06	6,341.64	6,134.06	30.21	25.49	-89.67	160.33	-1,109.42	2,498.34	2,467.30	31.04	80.492	
6,500.00	6,234.06	6,441.64	6,234.06	30.31	25.61	-89.67	160.33	-1,109.42	2,498.34	2,466.95	31.39	79.589	
6,600.00	6,334.06	6,541.64	6,334.06	30.41	25.72	-89.67	160.33	-1,109.42	2,498.34	2,466.59	31.74	78.701	
6,700.00	6,434.06	6,641.64	6,434.06	30.51	25.84	-89.67	160.33	-1,109.42	2,498.34	2,466.24	32.10	77.826	
6,800.00	6,534.06	6,741.64	6,534.06	30.61	25.96	-89.67	160.33	-1,109.42	2,498.34	2,465.88	32.46	76.966	

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 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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 21-4 - P_WHISTON 21-4 - 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
6,900.00	6,634.06	6,841.64	6,634.06	30.71	26.08	-89.67	160.33	-1,109.42	2,498.34	2,465.52	32.82	76.118	
7,000.00	6,734.06	6,941.64	6,734.06	30.82	26.20	-89.67	160.33	-1,109.42	2,498.34	2,465.15	33.19	75.285	
7,100.00	6,834.06	7,041.64	6,834.06	30.92	26.33	-89.67	160.33	-1,109.42	2,498.34	2,464.79	33.55	74.465	
7,200.00	6,934.06	7,141.64	6,934.06	31.03	26.45	-89.67	160.33	-1,109.42	2,498.34	2,464.42	33.92	73.658	
7,300.00	7,034.06	7,241.64	7,034.06	31.13	26.58	-89.67	160.33	-1,109.42	2,498.34	2,464.05	34.29	72.865	
7,400.00	7,134.06	7,341.64	7,134.06	31.24	26.71	-89.67	160.33	-1,109.42	2,498.34	2,463.68	34.66	72.084	
7,500.00	7,234.06	7,441.64	7,234.06	31.35	26.84	-89.67	160.33	-1,109.42	2,498.34	2,463.31	35.03	71.316	
7,600.00	7,334.06	7,541.64	7,334.06	31.46	26.97	-89.67	160.33	-1,109.42	2,498.34	2,462.93	35.41	70.561	
7,700.00	7,434.06	7,641.64	7,434.06	31.58	27.10	-89.67	160.33	-1,109.42	2,498.34	2,462.56	35.78	69.818	
7,800.00	7,534.06	7,741.64	7,534.06	31.69	27.23	-89.67	160.33	-1,109.42	2,498.34	2,462.18	36.16	69.088	
7,824.72	7,558.78	7,766.36	7,558.78	31.72	27.26	-89.67	160.33	-1,109.42	2,498.34	2,462.08	36.26	68.910	
7,839.94	7,574.00	7,776.58	7,569.00	31.74	27.28	-89.67	160.33	-1,109.42	2,498.34	2,462.04	36.30	68.819	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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 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	180.00	-58.28	0.00	58.28				
100.00	100.00	100.00	100.00	0.10	0.10	180.00	-58.28	0.00	58.28	58.09	0.19	305.054	
200.00	200.00	200.00	200.00	0.32	0.32	180.00	-58.28	0.00	58.28	57.64	0.64	90.981	
300.00	300.00	300.00	300.00	0.55	0.55	180.00	-58.28	0.00	58.28	57.19	1.09	53.463	
400.00	400.00	400.00	400.00	0.77	0.77	180.00	-58.28	0.00	58.28	56.74	1.54	37.853	
500.00	500.00	500.00	500.00	0.99	0.99	180.00	-58.28	0.00	58.28	56.29	1.99	29.299	
600.00	600.00	600.00	600.00	1.22	1.22	180.00	-58.28	0.00	58.28	55.84	2.44	23.898	
700.00	700.00	700.00	700.00	1.44	1.44	180.00	-58.28	0.00	58.28	55.39	2.89	20.179	
800.00	800.00	800.00	800.00	1.67	1.67	180.00	-58.28	0.00	58.28	54.94	3.34	17.461	
900.00	900.00	900.00	900.00	1.89	1.89	180.00	-58.28	0.00	58.28	54.49	3.79	15.389 CC, ES	
1,000.00	999.98	998.50	998.48	2.11	2.09	98.77	-59.46	-1.22	59.73	55.53	4.20	14.225	
1,100.00	1,099.84	1,096.37	1,096.22	2.32	2.28	106.22	-62.95	-4.84	64.86	60.27	4.59	14.134 SF	
1,200.00	1,199.45	1,193.00	1,192.49	2.54	2.47	115.93	-68.68	-10.77	75.42	70.43	4.99	15.106	
1,300.00	1,298.70	1,287.81	1,286.63	2.79	2.69	125.27	-76.48	-18.86	92.84	87.44	5.40	17.182	
1,400.00	1,397.47	1,380.26	1,378.01	3.06	2.93	132.83	-86.18	-28.89	117.55	111.74	5.81	20.218	
1,500.00	1,495.62	1,469.88	1,466.13	3.38	3.20	138.44	-97.52	-40.65	149.29	143.06	6.23	23.977	
1,600.00	1,593.06	1,556.26	1,550.53	3.75	3.50	142.46	-110.26	-53.84	187.56	180.92	6.64	28.238	
1,700.00	1,689.64	1,639.04	1,630.87	4.18	3.82	145.32	-124.12	-68.20	231.86	224.79	7.07	32.795	
1,800.00	1,785.27	1,717.97	1,706.90	4.67	4.17	147.34	-138.84	-83.45	281.74	274.23	7.51	37.517	
1,900.00	1,879.82	1,792.84	1,778.45	5.23	4.54	148.76	-154.13	-99.29	336.78	328.81	7.97	42.281	
2,000.00	1,973.17	1,863.50	1,845.44	5.86	4.93	149.72	-169.76	-115.47	396.60	388.15	8.44	46.974	
2,100.00	2,065.21	1,929.87	1,907.83	6.57	5.32	150.33	-185.47	-131.75	460.83	451.89	8.94	51.538	
2,129.70	2,092.29	1,948.75	1,925.48	6.80	5.44	150.45	-190.13	-136.57	480.72	471.62	9.10	52.853	
2,200.00	2,156.21	1,992.40	1,966.12	7.34	5.71	151.27	-201.20	-148.04	528.61	519.11	9.49	55.682	
2,300.00	2,247.13	2,052.51	2,021.68	8.14	6.13	152.16	-217.14	-164.55	598.10	588.03	10.07	59.376	
2,400.00	2,338.06	2,110.37	2,074.68	8.95	6.54	152.83	-233.25	-181.24	669.08	658.42	10.66	62.783	
2,500.00	2,428.99	2,174.82	2,133.30	9.77	7.03	153.41	-251.84	-200.50	741.17	729.91	11.26	65.801	
2,600.00	2,519.92	2,243.82	2,196.04	10.60	7.56	153.93	-271.80	-221.18	813.38	801.50	11.89	68.431	
2,700.00	2,610.85	2,312.83	2,258.77	11.44	8.10	154.36	-291.77	-241.86	885.62	873.11	12.51	70.770	
2,800.00	2,701.77	2,381.84	2,321.51	12.28	8.65	154.73	-311.73	-262.53	957.88	944.73	13.15	72.840	
2,900.00	2,792.70	2,450.84	2,384.24	13.13	9.20	155.05	-331.69	-283.21	1,030.16	1,016.37	13.79	74.688	
3,000.00	2,883.63	2,519.85	2,446.98	13.98	9.76	155.32	-351.65	-303.89	1,102.45	1,088.01	14.44	76.351	
3,100.00	2,974.56	2,588.85	2,509.71	14.83	10.32	155.56	-371.62	-324.57	1,174.75	1,159.66	15.09	77.849	
3,200.00	3,065.49	2,657.86	2,572.45	15.69	10.88	155.78	-391.58	-345.24	1,247.05	1,231.31	15.75	79.201	
3,300.00	3,156.41	2,726.86	2,635.18	16.55	11.44	155.97	-411.54	-365.92	1,319.37	1,302.97	16.40	80.434	
3,400.00	3,247.34	2,795.87	2,697.92	17.41	12.01	156.14	-431.50	-386.60	1,391.69	1,374.63	17.06	81.560	
3,500.00	3,338.27	2,864.87	2,760.65	18.27	12.58	156.29	-451.47	-407.28	1,464.02	1,446.29	17.73	82.587	
3,600.00	3,429.20	2,933.88	2,823.39	19.13	13.15	156.43	-471.43	-427.96	1,536.35	1,517.96	18.39	83.534	
3,700.00	3,520.12	3,002.89	2,886.12	19.99	13.73	156.56	-491.39	-448.63	1,608.69	1,589.63	19.06	84.408	
3,800.00	3,611.05	3,071.89	2,948.86	20.86	14.30	156.67	-511.35	-469.31	1,681.03	1,661.30	19.73	85.215	
3,900.00	3,701.98	3,140.90	3,011.59	21.73	14.88	156.78	-531.32	-489.99	1,753.37	1,732.97	20.40	85.964	
4,000.00	3,792.91	3,209.90	3,074.33	22.59	15.45	156.88	-551.28	-510.67	1,825.71	1,804.65	21.07	86.662	
4,100.00	3,883.84	3,278.91	3,137.07	23.46	16.03	156.97	-571.24	-531.35	1,898.06	1,876.32	21.74	87.313	
4,200.00	3,974.76	3,347.91	3,199.80	24.33	16.61	157.05	-591.20	-552.02	1,970.41	1,948.00	22.41	87.922	
4,236.24	4,007.71	3,372.92	3,222.53	24.64	16.82	157.08	-598.44	-559.52	1,996.63	1,973.97	22.65	88.134	
4,300.00	4,065.98	3,417.40	3,262.97	25.13	17.19	157.62	-611.30	-572.84	2,042.31	2,019.19	23.11	88.363	
4,400.00	4,158.49	3,489.03	3,328.09	25.77	17.79	158.37	-632.03	-594.31	2,112.07	2,088.28	23.79	88.773	
4,500.00	4,252.26	3,562.89	3,395.24	26.36	18.41	159.00	-653.39	-616.44	2,179.48	2,155.01	24.47	89.080	
4,600.00	4,347.19	3,638.87	3,464.32	26.90	19.05	159.53	-675.37	-639.21	2,244.44	2,219.31	25.13	89.307	
4,700.00	4,443.15	3,716.90	3,535.25	27.38	19.71	159.97	-697.94	-662.59	2,306.89	2,281.11	25.78	89.474	
4,800.00	4,540.04	3,796.86	3,607.96	27.81	20.38	160.34	-721.08	-686.55	2,366.75	2,340.34	26.42	89.596	
4,900.00	4,637.73	3,878.68	3,682.33	28.19	21.07	160.64	-744.75	-711.07	2,423.96	2,396.87	27.09	89.469	

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 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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 RHS												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	
5,000.00	4,736.11	3,962.24	3,758.30	28.52	21.78	160.88	-768.92	-736.11	2,478.45	2,450.70	27.75	89.320	
5,100.00	4,835.05	4,047.44	3,835.76	28.79	22.50	161.06	-793.57	-761.64	2,530.17	2,501.80	28.38	89.165	
5,200.00	4,934.44	4,134.18	3,914.62	29.02	23.23	161.19	-818.66	-787.63	2,579.07	2,550.10	28.97	89.011	
5,300.00	5,034.15	4,222.36	3,994.79	29.19	23.98	161.27	-844.17	-814.06	2,625.10	2,595.56	29.54	88.863	
5,400.00	5,134.07	4,311.87	4,076.16	29.32	24.74	161.31	-870.06	-840.88	2,668.21	2,638.14	30.07	88.726	
5,465.94	5,200.00	4,371.56	4,130.43	29.37	25.24	-114.69	-887.33	-858.77	2,695.02	2,664.62	30.40	88.640	
5,500.00	5,234.06	4,402.53	4,158.58	29.40	25.50	-114.78	-896.29	-868.04	2,708.54	2,677.96	30.58	88.571	
5,600.00	5,334.06	4,493.44	4,241.24	29.49	26.27	-115.07	-922.59	-895.29	2,748.28	2,717.18	31.10	88.362	
5,700.00	5,434.06	4,584.35	4,323.89	29.57	27.04	-115.34	-948.89	-922.53	2,788.07	2,756.45	31.62	88.167	
5,800.00	5,534.06	5,577.31	5,276.47	29.66	31.48	-117.05	-1,131.07	-1,111.24	2,819.09	2,784.56	34.53	81.640	
5,900.00	5,634.06	5,935.32	5,634.06	29.75	31.91	-117.13	-1,140.16	-1,120.66	2,819.82	2,784.62	35.20	80.105	
6,000.00	5,734.06	6,035.32	5,734.06	29.84	31.98	-117.13	-1,140.16	-1,120.66	2,819.82	2,784.35	35.47	79.494	
6,100.00	5,834.06	6,135.32	5,834.06	29.93	32.06	-117.13	-1,140.16	-1,120.66	2,819.82	2,784.07	35.75	78.885	
6,200.00	5,934.06	6,235.32	5,934.06	30.02	32.14	-117.13	-1,140.16	-1,120.66	2,819.82	2,783.80	36.02	78.278	
6,300.00	6,034.06	6,335.32	6,034.06	30.12	32.22	-117.13	-1,140.16	-1,120.66	2,819.82	2,783.51	36.30	77.672	
6,400.00	6,134.06	6,435.32	6,134.06	30.21	32.30	-117.13	-1,140.16	-1,120.66	2,819.82	2,783.23	36.59	77.069	
6,500.00	6,234.06	6,535.32	6,234.06	30.31	32.38	-117.13	-1,140.16	-1,120.66	2,819.82	2,782.94	36.88	76.468	
6,600.00	6,334.06	6,635.32	6,334.06	30.41	32.46	-117.13	-1,140.16	-1,120.66	2,819.82	2,782.65	37.17	75.870	
6,700.00	6,434.06	6,735.32	6,434.06	30.51	32.55	-117.13	-1,140.16	-1,120.66	2,819.82	2,782.36	37.46	75.275	
6,800.00	6,534.06	6,835.32	6,534.06	30.61	32.63	-117.13	-1,140.16	-1,120.66	2,819.82	2,782.06	37.76	74.683	
6,900.00	6,634.06	6,935.32	6,634.06	30.71	32.72	-117.13	-1,140.16	-1,120.66	2,819.82	2,781.76	38.06	74.095	
7,000.00	6,734.06	7,035.32	6,734.06	30.82	32.81	-117.13	-1,140.16	-1,120.66	2,819.82	2,781.46	38.36	73.510	
7,100.00	6,834.06	7,135.32	6,834.06	30.92	32.90	-117.13	-1,140.16	-1,120.66	2,819.82	2,781.15	38.67	72.929	
7,200.00	6,934.06	7,235.32	6,934.06	31.03	32.99	-117.13	-1,140.16	-1,120.66	2,819.82	2,780.84	38.97	72.352	
7,300.00	7,034.06	7,335.32	7,034.06	31.13	33.08	-117.13	-1,140.16	-1,120.66	2,819.82	2,780.53	39.28	71.779	
7,400.00	7,134.06	7,435.32	7,134.06	31.24	33.18	-117.13	-1,140.16	-1,120.66	2,819.82	2,780.22	39.60	71.210	
7,500.00	7,234.06	7,535.32	7,234.06	31.35	33.27	-117.13	-1,140.16	-1,120.66	2,819.82	2,779.90	39.92	70.645	
7,600.00	7,334.06	7,635.32	7,334.06	31.46	33.37	-117.13	-1,140.16	-1,120.66	2,819.82	2,779.58	40.23	70.085	
7,700.00	7,434.06	7,735.32	7,434.06	31.58	33.47	-117.13	-1,140.16	-1,120.66	2,819.82	2,779.26	40.56	69.530	
7,800.00	7,534.06	7,835.32	7,534.06	31.69	33.56	-117.13	-1,140.16	-1,120.66	2,819.82	2,778.94	40.88	68.979	
7,839.94	7,574.00	7,875.26	7,574.00	31.74	33.60	-117.13	-1,140.16	-1,120.66	2,819.82	2,778.81	41.01	68.761	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 41-4
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 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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	140.81	-60.07	48.97	77.50				
100.00	100.00	100.00	100.00	0.10	1.70	140.81	-60.07	48.97	77.50	75.70	1.80	43.161	
200.00	200.00	200.00	200.00	0.32	5.70	140.81	-60.07	48.97	77.50	71.48	6.02	12.873	
300.00	300.00	300.00	300.00	0.55	9.70	140.81	-60.07	48.97	77.50	67.25	10.25	7.564	
400.00	400.00	400.00	400.00	0.77	13.70	140.81	-60.07	48.97	77.50	63.03	14.47	5.356	
500.00	500.00	500.00	500.00	0.99	17.70	140.81	-60.07	48.97	77.50	58.80	18.69	4.145	
600.00	600.00	600.00	600.00	1.22	21.70	140.81	-60.07	48.97	77.50	54.58	22.92	3.381	
700.00	700.00	700.00	700.00	1.44	25.70	140.81	-60.07	48.97	77.50	50.35	27.14	2.855	
800.00	800.00	800.00	800.00	1.67	29.70	140.81	-60.07	48.97	77.50	46.13	31.37	2.471	
900.00	900.00	900.00	900.00	1.89	33.70	140.81	-60.07	48.97	77.50	41.90	35.59	2.177	
1,000.00	999.98	999.98	999.98	2.11	37.70	57.92	-60.07	48.97	76.56	36.76	39.80	1.924	
1,100.00	1,099.84	1,099.84	1,099.84	2.32	41.69	61.40	-60.07	48.97	73.91	29.93	43.98	1.680	
1,200.00	1,199.45	1,199.45	1,199.45	2.54	45.68	67.71	-60.07	48.97	70.15	21.97	48.17	1.456	Level 3
1,300.00	1,298.70	1,298.70	1,298.70	2.79	49.65	77.48	-60.07	48.97	66.46	14.05	52.41	1.268	Level 3
1,393.66	1,391.22	1,391.22	1,391.22	3.05	53.35	90.00	-60.07	48.97	64.85	8.43	56.42	1.149	Level 2, CC
1,400.00	1,397.47	1,397.47	1,397.47	3.06	53.60	90.95	-60.07	48.97	64.86	8.17	56.69	1.144	Level 2
1,500.00	1,495.62	1,495.62	1,495.62	3.38	57.52	106.92	-60.07	48.97	67.92	7.07	60.85	1.116	Level 2, ES, SF
1,600.00	1,593.06	1,593.06	1,593.06	3.75	61.42	122.55	-60.07	48.97	77.63	12.98	64.65	1.201	Level 2
1,700.00	1,689.64	1,689.64	1,689.64	4.18	65.29	135.46	-60.07	48.97	94.37	26.32	68.04	1.387	Level 3
1,800.00	1,785.27	1,785.27	1,785.27	4.67	69.11	145.11	-60.07	48.97	117.34	46.19	71.14	1.649	
1,900.00	1,879.82	1,879.82	1,879.82	5.23	72.89	152.10	-60.07	48.97	145.58	71.55	74.03	1.967	
2,000.00	1,973.17	1,973.17	1,973.17	5.86	76.63	157.17	-60.07	48.97	178.38	101.66	76.72	2.325	
2,100.00	2,065.21	2,065.21	2,065.21	6.57	80.31	160.92	-60.07	48.97	215.25	136.03	79.22	2.717	
2,129.70	2,092.29	2,092.29	2,092.29	6.80	81.39	161.84	-60.07	48.97	226.93	147.01	79.92	2.839	
2,200.00	2,156.21	2,156.21	2,156.21	7.34	83.95	163.88	-60.07	48.97	255.11	172.78	82.32	3.099	
2,300.00	2,247.13	2,247.13	2,247.13	8.14	87.59	166.11	-60.07	48.97	295.55	209.74	85.80	3.445	
2,400.00	2,338.06	2,338.06	2,338.06	8.95	91.22	167.80	-60.07	48.97	336.27	246.94	89.33	3.764	
2,500.00	2,428.99	2,428.99	2,428.99	9.77	94.86	169.13	-60.07	48.97	377.20	284.31	92.89	4.061	
2,600.00	2,519.92	2,519.92	2,519.92	10.60	98.50	170.21	-60.07	48.97	418.26	321.78	96.48	4.335	
2,700.00	2,610.85	2,610.85	2,610.85	11.44	102.13	171.09	-60.07	48.97	459.42	359.34	100.08	4.591	
2,800.00	2,701.77	2,701.77	2,701.77	12.28	105.77	171.82	-60.07	48.97	500.66	396.97	103.69	4.828	
2,900.00	2,792.70	2,792.70	2,792.70	13.13	109.41	172.45	-60.07	48.97	541.95	434.64	107.31	5.050	
3,000.00	2,883.63	2,883.63	2,883.63	13.98	113.05	172.99	-60.07	48.97	583.29	472.35	110.94	5.258	
3,100.00	2,974.56	2,974.56	2,974.56	14.83	116.68	173.45	-60.07	48.97	624.67	510.09	114.58	5.452	
3,200.00	3,065.49	3,065.49	3,065.49	15.69	120.32	173.86	-60.07	48.97	666.08	547.86	118.22	5.634	
3,300.00	3,156.41	3,156.41	3,156.41	16.55	123.96	174.22	-60.07	48.97	707.51	585.65	121.86	5.806	
3,400.00	3,247.34	3,247.34	3,247.34	17.41	127.59	174.54	-60.07	48.97	748.96	623.45	125.51	5.967	
3,500.00	3,338.27	3,338.27	3,338.27	18.27	131.23	174.83	-60.07	48.97	790.43	661.27	129.16	6.120	
3,600.00	3,429.20	3,429.20	3,429.20	19.13	134.87	175.09	-60.07	48.97	831.92	699.10	132.82	6.264	
3,700.00	3,520.12	3,520.12	3,520.12	19.99	138.50	175.32	-60.07	48.97	873.42	736.94	136.47	6.400	
3,800.00	3,611.05	3,611.05	3,611.05	20.86	142.14	175.53	-60.07	48.97	914.93	774.80	140.13	6.529	
3,900.00	3,701.98	3,701.98	3,701.98	21.73	145.78	175.73	-60.07	48.97	956.44	812.66	143.79	6.652	
4,000.00	3,792.91	3,792.91	3,792.91	22.59	149.42	175.90	-60.07	48.97	997.97	850.52	147.45	6.768	
4,100.00	3,883.84	3,883.84	3,883.84	23.46	153.05	176.07	-60.07	48.97	1,039.50	888.39	151.11	6.879	
4,200.00	3,974.76	3,974.76	3,974.76	24.33	156.69	176.22	-60.07	48.97	1,081.05	926.27	154.77	6.985	
4,236.24	4,007.71	4,007.71	4,007.71	24.64	158.01	176.27	-60.07	48.97	1,096.10	940.00	156.10	7.022	
4,300.00	4,065.98	4,065.98	4,065.98	25.13	160.34	176.39	-60.07	48.97	1,121.95	962.10	159.84	7.019	
4,400.00	4,158.49	4,158.49	4,158.49	25.77	164.04	176.56	-60.07	48.97	1,159.86	994.21	165.64	7.002	
4,500.00	4,252.26	4,252.26	4,252.26	26.36	167.79	176.70	-60.07	48.97	1,194.53	1,023.16	171.37	6.970	
4,600.00	4,347.19	4,347.19	4,347.19	26.90	171.59	176.82	-60.07	48.97	1,225.91	1,048.88	177.04	6.925	
4,700.00	4,443.15	4,443.15	4,443.15	27.38	175.43	176.93	-60.07	48.97	1,253.97	1,071.31	182.66	6.865	
4,800.00	4,540.04	4,540.04	4,540.04	27.81	179.30	177.01	-60.07	48.97	1,278.67	1,090.52	188.15	6.796	

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



Weatherford International Ltd.

Anticollision Report



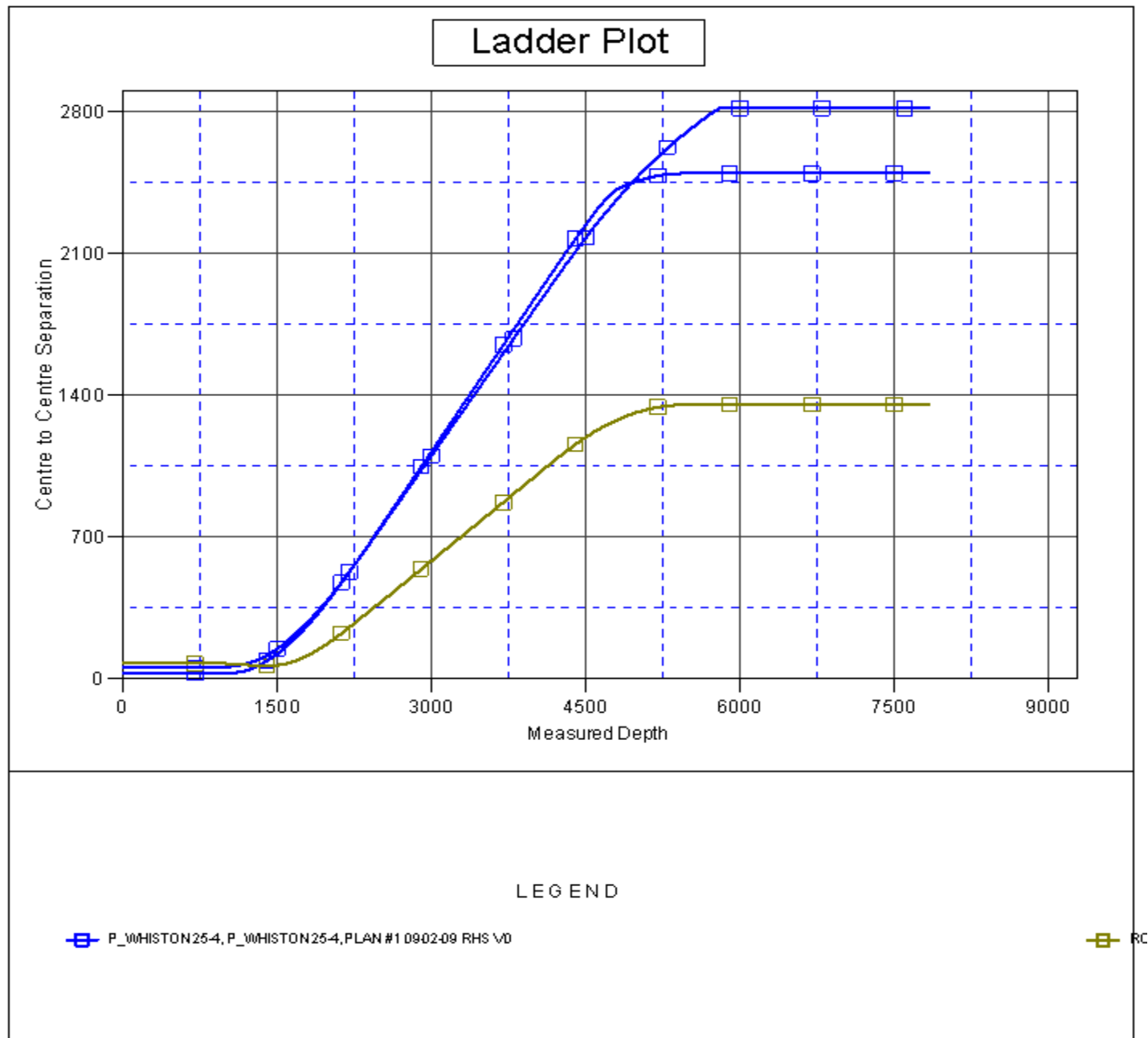
Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 41-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												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	4,637.73	4,637.73	4,637.73	28.19	183.21	177.08	-60.07	48.97	1,299.98	1,106.48	193.49	6.719	
5,000.00	4,736.11	4,736.11	4,736.11	28.52	187.14	177.14	-60.07	48.97	1,317.86	1,119.20	198.67	6.634	
5,100.00	4,835.05	4,835.05	4,835.05	28.79	191.10	177.19	-60.07	48.97	1,332.31	1,128.66	203.65	6.542	
5,200.00	4,934.44	4,934.44	4,934.44	29.02	195.08	177.22	-60.07	48.97	1,343.31	1,134.88	208.43	6.445	
5,300.00	5,034.15	5,034.15	5,034.15	29.19	199.07	177.24	-60.07	48.97	1,350.83	1,137.85	212.97	6.343	
5,400.00	5,134.07	5,134.07	5,134.07	29.32	203.06	177.26	-60.07	48.97	1,354.87	1,137.60	217.27	6.236	
5,465.94	5,200.00	5,200.00	5,200.00	29.37	205.70	-98.73	-60.07	48.97	1,355.63	1,135.67	219.96	6.163	
5,500.00	5,234.06	5,234.06	5,234.06	29.40	207.06	-98.73	-60.07	48.97	1,355.63	1,134.25	221.38	6.124	
5,600.00	5,334.06	5,334.06	5,334.06	29.49	211.06	-98.73	-60.07	48.97	1,355.63	1,130.10	225.53	6.011	
5,700.00	5,434.06	5,434.06	5,434.06	29.57	215.06	-98.73	-60.07	48.97	1,355.63	1,125.94	229.69	5.902	
5,800.00	5,534.06	5,534.06	5,534.06	29.66	219.06	-98.73	-60.07	48.97	1,355.63	1,121.78	233.85	5.797	
5,900.00	5,634.06	5,634.06	5,634.06	29.75	223.06	-98.73	-60.07	48.97	1,355.63	1,117.61	238.01	5.696	
6,000.00	5,734.06	5,734.06	5,734.06	29.84	227.06	-98.73	-60.07	48.97	1,355.63	1,113.45	242.18	5.598	
6,100.00	5,834.06	5,834.06	5,834.06	29.93	231.06	-98.73	-60.07	48.97	1,355.63	1,109.28	246.34	5.503	
6,200.00	5,934.06	5,934.06	5,934.06	30.02	235.06	-98.73	-60.07	48.97	1,355.63	1,105.12	250.51	5.411	
6,300.00	6,034.06	6,034.06	6,034.06	30.12	239.06	-98.73	-60.07	48.97	1,355.63	1,100.95	254.68	5.323	
6,400.00	6,134.06	6,134.06	6,134.06	30.21	243.06	-98.73	-60.07	48.97	1,355.63	1,096.78	258.85	5.237	
6,500.00	6,234.06	6,234.06	6,234.06	30.31	247.06	-98.73	-60.07	48.97	1,355.63	1,092.61	263.02	5.154	
6,600.00	6,334.06	6,334.06	6,334.06	30.41	251.06	-98.73	-60.07	48.97	1,355.63	1,088.44	267.19	5.074	
6,700.00	6,434.06	6,434.06	6,434.06	30.51	255.06	-98.73	-60.07	48.97	1,355.63	1,084.26	271.37	4.996	
6,800.00	6,534.06	6,534.06	6,534.06	30.61	259.06	-98.73	-60.07	48.97	1,355.63	1,080.09	275.54	4.920	
6,900.00	6,634.06	6,634.06	6,634.06	30.71	263.06	-98.73	-60.07	48.97	1,355.63	1,075.91	279.72	4.846	
7,000.00	6,734.06	6,734.06	6,734.06	30.82	267.06	-98.73	-60.07	48.97	1,355.63	1,071.73	283.89	4.775	
7,100.00	6,834.06	6,834.06	6,834.06	30.92	271.06	-98.73	-60.07	48.97	1,355.63	1,067.56	288.07	4.706	
7,200.00	6,934.06	6,934.06	6,934.06	31.03	275.06	-98.73	-60.07	48.97	1,355.63	1,063.38	292.25	4.639	
7,300.00	7,034.06	7,034.06	7,034.06	31.13	279.06	-98.73	-60.07	48.97	1,355.63	1,059.20	296.43	4.573	
7,400.00	7,134.06	7,134.06	7,134.06	31.24	283.06	-98.73	-60.07	48.97	1,355.63	1,055.01	300.61	4.510	
7,500.00	7,234.06	7,234.06	7,234.06	31.35	287.06	-98.73	-60.07	48.97	1,355.63	1,050.83	304.80	4.448	
7,600.00	7,334.06	7,334.06	7,334.06	31.46	291.06	-98.73	-60.07	48.97	1,355.63	1,046.65	308.98	4.387	
7,700.00	7,434.06	7,434.06	7,434.06	31.58	295.06	-98.73	-60.07	48.97	1,355.63	1,042.46	313.16	4.329	
7,800.00	7,534.06	7,534.06	7,534.06	31.69	299.06	-98.73	-60.07	48.97	1,355.63	1,038.28	317.35	4.272	
7,839.94	7,574.00	7,574.00	7,574.00	31.74	300.66	-98.73	-60.07	48.97	1,355.63	1,036.61	319.02	4.249	



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Reference Well:	P_WHISTON 41-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 41-4	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 41-4
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°

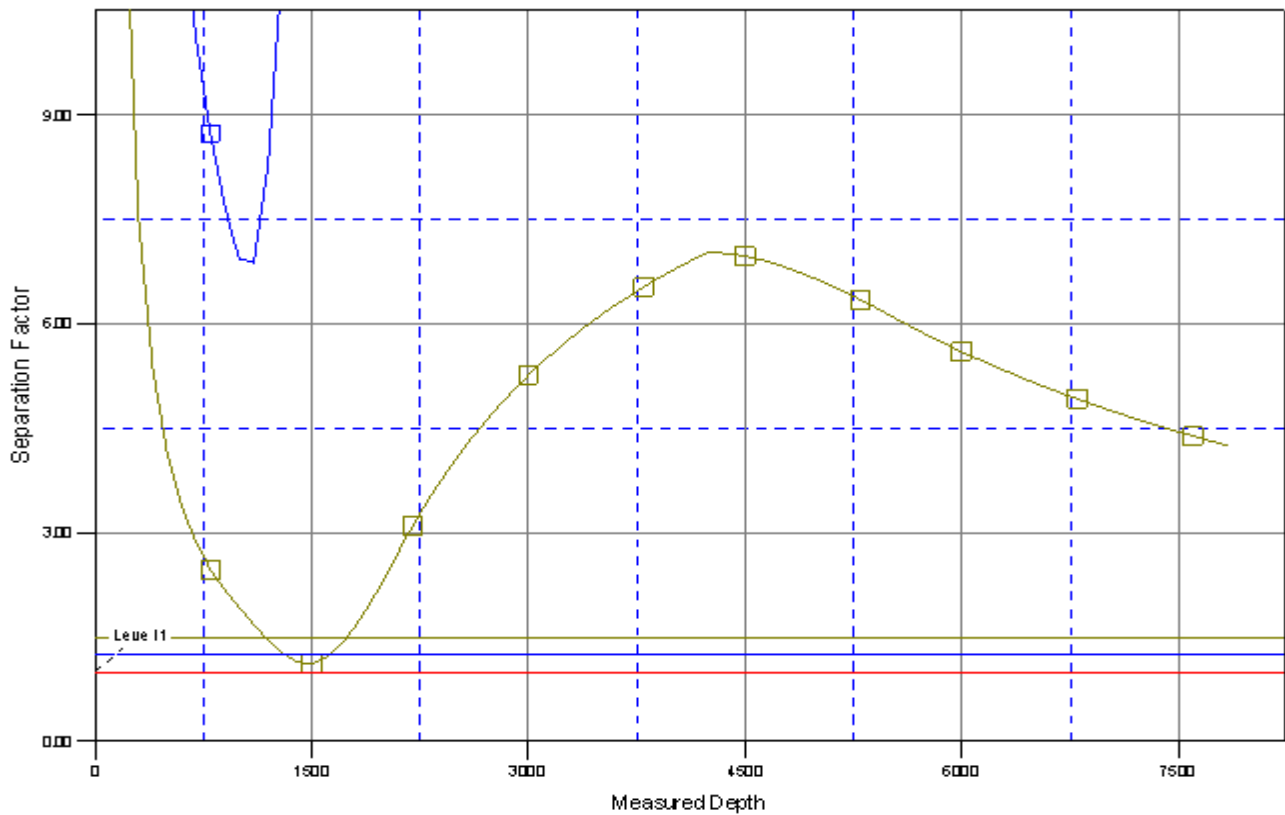




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Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

P_WHISTON25-4, P_WHISTON25-4, PLAN #1 09-02-09 RHS V/D

RC