



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_DRY CREEK PAD 7

P_DRY CREEK 5-27

P_DRY CREEK 5-27

Plan: PLAN #1 10-26-09 RHS

Standard Planning Report

26 October, 2009





WELL DETAILS: P_DRY CREEK 5-27					
+N/-S	+E/-W	Northing	Ground Level: Easting	5008.00 Latitude	Slot
0.00	0.00	1252968.71	3173114.79	40° 1' 34.068 N	104° 52' 54.588 W

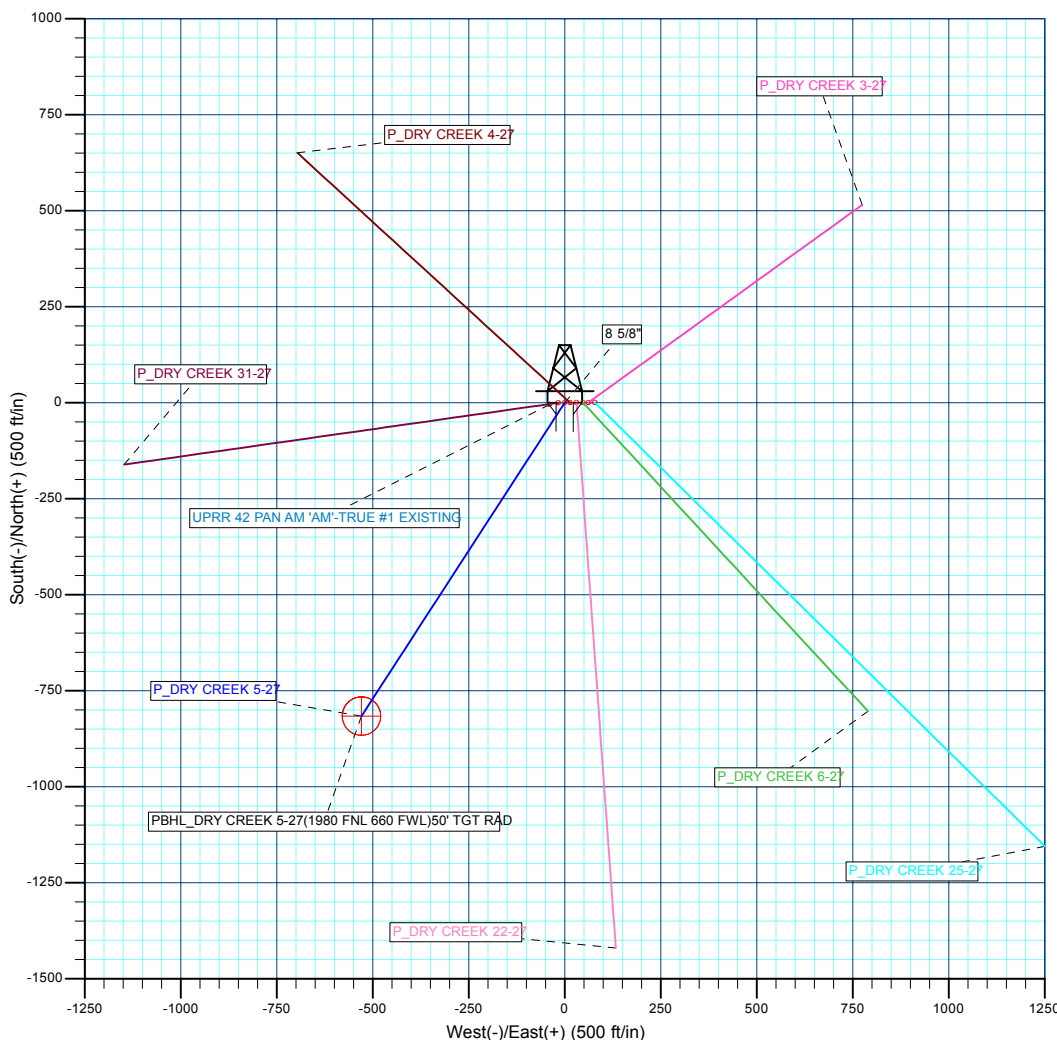
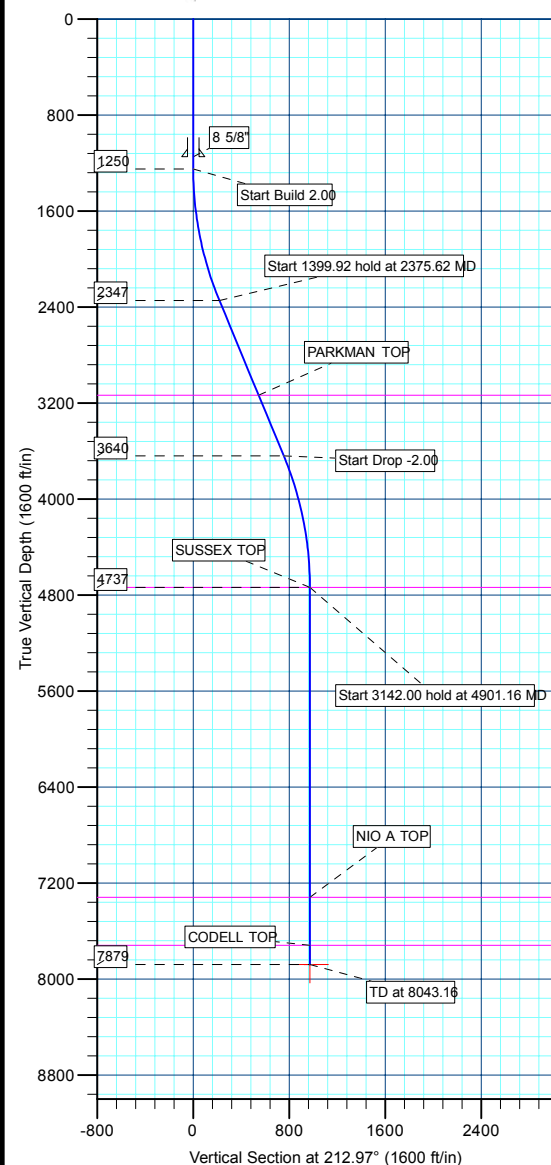
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3135.00	3228.75	PARKMAN TOP
4737.00	4901.16	SUSSEX TOP
7319.00	7483.16	NIO A TOP
7719.00	7883.16	CODELL TOP

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	
1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
2375.62	22.51	212.97	2346.88	-183.16	-118.79	2.00	212.97	218.31	
3775.54	22.51	212.97	3640.12	-632.87	-410.44	0.00	0.00	754.31	
4901.16	0.00	0.00	4737.00	-816.03	-529.23	2.00	180.00	972.62	
8043.16	0.00	0.00	7879.00	-816.03	-529.23	0.00	0.00	972.62	PBHL_DRY CREEK 5-27(1980 FNL 660 FWL)50' TGT RAD

CASING DETAILS			
TVD	MD	Name	Size
1150.00	1150.00	8 5/8"	8.62



KB ELEV: WELL @ 5023.00ft (Original Well Elev)
 GRD ELEV: 5008.00



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL	7879.00	-816.02	-529.23	1252152.69	3172585.56	40° 1' 26.040 N	104° 53' 1.464 W	Circle (Radius: 50.00)	

Plan: PLAN #1 10-26-09 RHS (P_DRY CREEK 5-27/P_DRY CREEK 5-27)

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 5-27		
Design:	PLAN #1 10-26-09 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_DRY CREEK PAD 7, SECTION 27 T1N R67W					
Site Position:				Northing:		1,252,969.16 ft		Latitude:		40° 1' 34.068 N	
From:		Lat/Long		Easting:		3,173,176.40 ft		Longitude:		104° 52' 53.796 W	
Position Uncertainty:		0.00 ft		Slot Radius:		in		Grid Convergence:		0.40 °	

Well	P_DRY CREEK 5-27					
Well Position	+N/-S	-0.45 ft	Northing:	1,252,968.71 ft	Latitude:	40° 1' 34.068 N
	+E/-W	-61.61 ft	Easting:	3,173,114.79 ft	Longitude:	104° 52' 54.588 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,008.00 ft

Wellbore	P_DRY CREEK 5-27				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/26/2009	9.08	66.79	53,112

Design	PLAN #1 10-26-09 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	212.97

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	
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,375.62	22.51	212.97	2,346.88	-183.16	-118.79	2.00	2.00	0.00	212.97	
3,775.54	22.51	212.97	3,640.12	-632.87	-410.44	0.00	0.00	0.00	0.00	
4,901.16	0.00	0.00	4,737.00	-816.03	-529.23	2.00	-2.00	0.00	180.00	
8,043.16	0.00	0.00	7,879.00	-816.03	-529.23	0.00	0.00	0.00	0.00	PBHL_DRY CREEK

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 5-27		
Design:	PLAN #1 10-26-09 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										
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	1.00	212.97	1,300.00	-0.37	-0.24	0.44	2.00	2.00	0.00	
1,400.00	3.00	212.97	1,399.93	-3.29	-2.14	3.93	2.00	2.00	0.00	
1,500.00	5.00	212.97	1,499.68	-9.15	-5.93	10.90	2.00	2.00	0.00	
1,600.00	7.00	212.97	1,599.13	-17.92	-11.62	21.35	2.00	2.00	0.00	
1,700.00	9.00	212.97	1,698.15	-29.59	-19.19	35.27	2.00	2.00	0.00	
1,800.00	11.00	212.97	1,796.63	-44.16	-28.64	52.63	2.00	2.00	0.00	
1,900.00	13.00	212.97	1,894.44	-61.60	-39.95	73.42	2.00	2.00	0.00	
2,000.00	15.00	212.97	1,991.46	-81.90	-53.12	97.62	2.00	2.00	0.00	
2,100.00	17.00	212.97	2,087.58	-105.02	-68.11	125.18	2.00	2.00	0.00	
2,200.00	19.00	212.97	2,182.68	-130.95	-84.93	156.08	2.00	2.00	0.00	
2,300.00	21.00	212.97	2,276.65	-159.64	-103.54	190.28	2.00	2.00	0.00	
Start 1399.92 hold at 2375.62 MD										
2,375.62	22.51	212.97	2,346.88	-183.16	-118.79	218.31	2.00	2.00	0.00	
2,400.00	22.51	212.97	2,369.40	-190.99	-123.87	227.64	0.00	0.00	0.00	
2,500.00	22.51	212.97	2,461.78	-223.11	-144.70	265.93	0.00	0.00	0.00	
2,600.00	22.51	212.97	2,554.16	-255.24	-165.53	304.22	0.00	0.00	0.00	
2,700.00	22.51	212.97	2,646.54	-287.36	-186.37	342.51	0.00	0.00	0.00	
2,800.00	22.51	212.97	2,738.92	-319.49	-207.20	380.79	0.00	0.00	0.00	
2,900.00	22.51	212.97	2,831.30	-351.61	-228.04	419.08	0.00	0.00	0.00	
3,000.00	22.51	212.97	2,923.68	-383.73	-248.87	457.37	0.00	0.00	0.00	
3,100.00	22.51	212.97	3,016.06	-415.86	-269.70	495.66	0.00	0.00	0.00	
3,200.00	22.51	212.97	3,108.44	-447.98	-290.54	533.95	0.00	0.00	0.00	
PARKMAN TOP										
3,228.75	22.51	212.97	3,135.00	-457.22	-296.53	544.96	0.00	0.00	0.00	
3,300.00	22.51	212.97	3,200.82	-480.11	-311.37	572.24	0.00	0.00	0.00	
3,400.00	22.51	212.97	3,293.20	-512.23	-332.20	610.52	0.00	0.00	0.00	
3,500.00	22.51	212.97	3,385.58	-544.35	-353.04	648.81	0.00	0.00	0.00	
3,600.00	22.51	212.97	3,477.96	-576.48	-373.87	687.10	0.00	0.00	0.00	
3,700.00	22.51	212.97	3,570.34	-608.60	-394.71	725.39	0.00	0.00	0.00	
Start Drop -2.00										
3,775.54	22.51	212.97	3,640.12	-632.87	-410.44	754.31	0.00	0.00	0.00	
3,800.00	22.02	212.97	3,662.76	-640.64	-415.49	763.58	2.00	-2.00	0.00	
3,900.00	20.02	212.97	3,756.10	-670.74	-435.01	799.45	2.00	-2.00	0.00	
4,000.00	18.02	212.97	3,850.63	-698.09	-452.74	832.05	2.00	-2.00	0.00	
4,100.00	16.02	212.97	3,946.24	-722.65	-468.67	861.32	2.00	-2.00	0.00	
4,200.00	14.02	212.97	4,042.82	-744.39	-482.77	887.24	2.00	-2.00	0.00	
4,300.00	12.02	212.97	4,140.24	-763.30	-495.04	909.77	2.00	-2.00	0.00	
4,400.00	10.02	212.97	4,238.39	-779.34	-505.44	928.89	2.00	-2.00	0.00	
4,500.00	8.02	212.97	4,337.15	-792.50	-513.97	944.58	2.00	-2.00	0.00	
4,600.00	6.02	212.97	4,436.40	-802.76	-520.63	956.80	2.00	-2.00	0.00	
4,700.00	4.02	212.97	4,536.01	-810.10	-525.39	965.56	2.00	-2.00	0.00	
4,800.00	2.02	212.97	4,635.86	-814.53	-528.26	970.83	2.00	-2.00	0.00	
4,900.00	0.02	212.97	4,735.84	-816.02	-529.23	972.62	2.00	-2.00	0.00	
Start 3142.00 hold at 4901.16 MD - SUSSEX TOP										
4,901.16	0.00	0.00	4,737.00	-816.03	-529.23	972.62	2.00	-2.00	0.00	
5,000.00	0.00	0.00	4,835.84	-816.03	-529.23	972.62	0.00	0.00	0.00	
5,100.00	0.00	0.00	4,935.84	-816.03	-529.23	972.62	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,035.84	-816.03	-529.23	972.62	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,135.84	-816.03	-529.23	972.62	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,235.84	-816.03	-529.23	972.62	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,335.84	-816.03	-529.23	972.62	0.00	0.00	0.00	

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Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 5-27		
Design:	PLAN #1 10-26-09 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)
5,600.00	0.00	0.00	5,435.84	-816.03	-529.23	972.62	0.00	0.00	0.00
5,700.00	0.00	0.00	5,535.84	-816.03	-529.23	972.62	0.00	0.00	0.00
5,800.00	0.00	0.00	5,635.84	-816.03	-529.23	972.62	0.00	0.00	0.00
5,900.00	0.00	0.00	5,735.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,000.00	0.00	0.00	5,835.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,100.00	0.00	0.00	5,935.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,200.00	0.00	0.00	6,035.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,300.00	0.00	0.00	6,135.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,400.00	0.00	0.00	6,235.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,500.00	0.00	0.00	6,335.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,600.00	0.00	0.00	6,435.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,700.00	0.00	0.00	6,535.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,800.00	0.00	0.00	6,635.84	-816.03	-529.23	972.62	0.00	0.00	0.00
6,900.00	0.00	0.00	6,735.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,000.00	0.00	0.00	6,835.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,100.00	0.00	0.00	6,935.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,200.00	0.00	0.00	7,035.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,300.00	0.00	0.00	7,135.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,400.00	0.00	0.00	7,235.84	-816.03	-529.23	972.62	0.00	0.00	0.00
NIO A TOP									
7,483.16	0.00	0.00	7,319.00	-816.03	-529.23	972.62	0.00	0.00	0.00
7,500.00	0.00	0.00	7,335.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,600.00	0.00	0.00	7,435.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,700.00	0.00	0.00	7,535.84	-816.03	-529.23	972.62	0.00	0.00	0.00
7,800.00	0.00	0.00	7,635.84	-816.03	-529.23	972.62	0.00	0.00	0.00
CODELL TOP									
7,883.16	0.00	0.00	7,719.00	-816.03	-529.23	972.62	0.00	0.00	0.00
7,900.00	0.00	0.00	7,735.84	-816.03	-529.23	972.62	0.00	0.00	0.00
8,000.00	0.00	0.00	7,835.84	-816.03	-529.23	972.62	0.00	0.00	0.00
TD at 8043.16 - PBHL_DRY CREEK 5-27(1980 FNL 660 FWL)50' TGT RAD									
8,043.16	0.00	0.00	7,879.00	-816.03	-529.23	972.62	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
PBHL_DRY CREEK 5	- plan misses target center by 0.01ft at 8043.16ft MD (7879.00 TVD, -816.03 N, -529.23 E)	0.00	0.00	7,879.00	-816.02	-529.23	1,252,152.69	3,172,585.56	40° 1' 26.040 N 104° 53' 1.464 W
	- Circle (radius 50.00)								

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,150.00	1,150.00	8 5/8"	8.62	11.00	

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 5-27		
Design:	PLAN #1 10-26-09 RHS		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,228.75	3,135.00	PARKMAN TOP				
4,901.16	4,737.00	SUSSEX TOP				
7,483.16	7,319.00	NIO A TOP				
7,883.16	7,719.00	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,250.00	1,250.00	0.00	0.00	Start Build 2.00	
2,375.62	2,346.88	-183.16	-118.79	Start 1399.92 hold at 2375.62 MD	
3,775.54	3,640.12	-632.87	-410.44	Start Drop -2.00	
4,901.16	4,737.00	-816.03	-529.23	Start 3142.00 hold at 4901.16 MD	
8,043.16	7,879.00	-816.03	-529.23	TD at 8043.16	



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_DRY CREEK PAD 7
P_DRY CREEK 5-27**

**P_DRY CREEK 5-27
PLAN #1 10-26-09 RHS**

Anticollision Report

26 October, 2009



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 10-26-09 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	10/26/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,043.16	PLAN #1 10-26-09 RHS (P_DRY CREEK	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_DRY CREEK PAD 7						
P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #	1,250.00	1,250.00	30.81	25.44	5.747	CC, ES
P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #	1,300.00	1,299.96	31.07	25.52	5.592	SF
P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #	1,250.00	1,250.00	78.41	73.05	14.627	CC, ES
P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #	1,400.00	1,397.00	83.29	77.39	14.105	SF
P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #	1,250.00	1,250.00	16.80	13.48	5.050	CC, ES
P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #	1,300.00	1,299.71	17.00	13.54	4.924	SF
P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 1	1,250.00	1,250.00	61.61	56.25	11.493	CC, ES
P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 1	1,300.00	1,299.12	62.20	56.64	11.174	SF
P_DRY CREEK 4-27 - P_DRY CREEK 4-27 - PLAN #1 1	1,329.39	1,329.64	13.90	8.22	2.445	CC, ES
P_DRY CREEK 4-27 - P_DRY CREEK 4-27 - PLAN #1 1	1,400.00	1,400.30	14.56	8.60	2.444	SF
P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 1	1,250.00	1,250.00	47.61	42.25	8.881	CC, ES
P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 1	1,300.00	1,299.44	48.14	42.58	8.662	SF
UPRR 42 PAN AM 'AM-TRUE #1 EXISTING - UPRR 42	1,632.62	1,631.48	30.81	-35.56	0.464	Level 1, CC, SF
UPRR 42 PAN AM 'AM-TRUE #1 EXISTING - UPRR 42	1,700.00	1,698.15	32.32	-36.81	0.468	Level 1, ES

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #1 10-26-09 RHS											
Survey Program: 0-MWD											
Reference											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)
0.00	0.00	0.00	0.00	0.00	0.00	89.59	0.22	30.80	30.81	30.61	0.19
100.00	100.00	100.00	100.00	0.10	0.10	89.59	0.22	30.80	30.81	30.16	0.64
200.00	200.00	200.00	200.00	0.32	0.32	89.59	0.22	30.80	30.81	29.72	1.09
300.00	300.00	300.00	300.00	0.55	0.55	89.59	0.22	30.80	30.81	29.27	1.54
400.00	400.00	400.00	400.00	0.77	0.77	89.59	0.22	30.80	30.81	28.82	1.99
500.00	500.00	500.00	500.00	0.99	0.99	89.59	0.22	30.80	30.81	28.37	2.44
600.00	600.00	600.00	600.00	1.22	1.22	89.59	0.22	30.80	30.81	27.92	2.89
700.00	700.00	700.00	700.00	1.44	1.44	89.59	0.22	30.80	30.81	27.47	3.34
800.00	800.00	800.00	800.00	1.67	1.67	89.59	0.22	30.80	30.81	27.02	3.79
900.00	900.00	900.00	900.00	1.89	1.89	89.59	0.22	30.80	30.81	26.57	4.24
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.59	0.22	30.80	30.81	26.12	4.69
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.59	0.22	30.80	30.81	25.67	5.14
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.59	0.22	30.80	30.81	25.44	5.36
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.59	0.22	30.80	30.81		

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												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
1,300.00	1,300.00	1,299.96	1,299.96	2.78	2.78	-123.24	-0.22	30.84	31.07	25.52	5.56	5.592 SF	
1,400.00	1,399.93	1,399.85	1,399.79	2.96	2.95	-122.24	-3.69	31.09	33.22	27.33	5.90	5.631	
1,500.00	1,499.68	1,499.63	1,499.32	3.14	3.13	-120.57	-10.62	31.59	37.55	31.29	6.26	5.998	
1,600.00	1,599.13	1,599.23	1,598.37	3.34	3.32	-118.68	-20.99	32.33	44.07	37.41	6.65	6.626	
1,700.00	1,698.15	1,698.58	1,696.75	3.57	3.55	-116.87	-34.74	33.32	52.79	45.70	7.09	7.448	
1,800.00	1,796.63	1,797.60	1,794.27	3.83	3.80	-115.27	-51.82	34.55	63.70	56.11	7.59	8.397	
1,900.00	1,894.44	1,896.23	1,890.76	4.14	4.09	-113.91	-72.17	36.02	76.79	68.63	8.17	9.404	
2,000.00	1,991.46	1,994.41	1,986.06	4.50	4.44	-112.78	-95.71	37.72	92.03	83.19	8.84	10.410	
2,100.00	2,087.58	2,092.09	2,080.01	4.91	4.83	-111.82	-122.34	39.64	109.39	99.77	9.62	11.368	
2,200.00	2,182.68	2,189.19	2,172.46	5.39	5.29	-111.00	-151.96	41.77	128.84	118.31	10.52	12.243	
2,300.00	2,276.65	2,286.68	2,264.56	5.94	5.79	-110.67	-183.85	44.07	150.06	138.54	11.53	13.018	
2,375.62	2,346.88	2,360.36	2,334.14	6.39	6.19	-111.13	-208.00	45.81	166.95	154.60	12.34	13.524	
2,400.00	2,369.40	2,384.08	2,356.54	6.55	6.32	-111.46	-215.78	46.37	172.51	159.89	12.62	13.673	
2,500.00	2,461.78	2,481.36	2,448.43	7.20	6.87	-112.59	-247.66	48.67	195.38	181.61	13.77	14.192	
2,600.00	2,554.16	2,578.65	2,540.31	7.88	7.44	-113.49	-279.55	50.96	218.30	203.35	14.95	14.603	
2,700.00	2,646.54	2,675.94	2,632.19	8.57	8.02	-114.21	-311.44	53.26	241.26	225.11	16.16	14.932	
2,800.00	2,738.92	2,773.22	2,724.08	9.27	8.61	-114.81	-343.32	55.56	264.26	246.87	17.39	15.200	
2,900.00	2,831.30	2,870.51	2,815.96	9.99	9.21	-115.32	-375.21	57.86	287.28	268.65	18.63	15.421	
3,000.00	2,923.68	2,967.80	2,907.84	10.71	9.81	-115.75	-407.10	60.16	310.31	290.43	19.89	15.605	
3,100.00	3,016.06	3,065.08	2,999.73	11.44	10.42	-116.12	-438.99	62.45	333.36	312.21	21.15	15.760	
3,200.00	3,108.44	3,162.37	3,091.61	12.17	11.03	-116.44	-470.87	64.75	356.42	334.00	22.43	15.892	
3,300.00	3,200.82	3,259.65	3,183.49	12.91	11.65	-116.72	-502.76	67.05	379.49	355.78	23.71	16.006	
3,400.00	3,293.20	3,356.94	3,275.38	13.65	12.27	-116.97	-534.65	69.35	402.57	377.57	25.00	16.104	
3,500.00	3,385.58	3,454.23	3,367.26	14.40	12.89	-117.19	-566.54	71.64	425.66	399.37	26.29	16.191	
3,600.00	3,477.96	3,551.51	3,459.14	15.15	13.52	-117.39	-598.42	73.94	448.75	421.16	27.59	16.267	
3,700.00	3,570.34	3,648.80	3,551.03	15.90	14.14	-117.57	-630.31	76.24	471.84	442.95	28.89	16.334	
3,775.54	3,640.12	3,722.29	3,620.44	16.47	14.62	-117.70	-654.40	77.98	489.29	459.42	29.87	16.380	
3,800.00	3,662.76	3,746.10	3,642.92	16.63	14.77	-117.83	-662.20	78.54	494.89	464.72	30.18	16.400	
3,900.00	3,756.10	3,843.66	3,735.06	17.16	15.41	-118.11	-694.18	80.84	516.81	485.48	31.33	16.494	
4,000.00	3,850.63	3,941.49	3,827.46	17.66	16.04	-118.04	-726.24	83.15	537.13	504.64	32.49	16.532	
4,100.00	3,946.24	4,039.46	3,919.99	18.13	16.68	-117.65	-758.36	85.47	555.91	522.27	33.64	16.527	
4,200.00	4,042.82	4,137.47	4,012.56	18.56	17.32	-116.97	-790.48	87.78	573.21	538.45	34.76	16.489	
4,300.00	4,140.24	4,235.39	4,105.04	18.95	17.96	-116.02	-822.57	90.09	589.18	553.32	35.86	16.430	
4,400.00	4,238.39	4,333.10	4,197.33	19.30	18.60	-114.83	-854.60	92.40	603.96	567.04	36.92	16.361	
4,500.00	4,337.15	4,430.49	4,289.30	19.60	19.23	-113.40	-886.52	94.70	617.75	579.83	37.92	16.291	
4,600.00	4,436.40	4,527.42	4,380.86	19.86	19.87	-111.76	-918.29	96.99	630.78	591.92	38.86	16.232	
4,700.00	4,536.01	4,623.80	4,471.88	20.07	20.50	-109.93	-949.88	99.27	643.31	603.59	39.72	16.195	
4,800.00	4,635.86	4,719.49	4,562.26	20.24	21.13	-107.91	-981.25	101.53	655.63	615.13	40.49	16.190	
4,901.16	4,737.00	4,815.48	4,652.91	20.36	21.76	107.26	-1,012.71	103.80	668.19	627.01	41.18	16.227	
5,000.00	4,835.84	4,908.83	4,741.08	20.46	22.37	109.69	-1,043.31	106.00	681.29	639.54	41.75	16.319	
5,100.00	4,935.84	5,003.28	4,830.28	20.57	22.99	112.05	-1,074.26	108.23	695.84	653.57	42.26	16.464	
5,200.00	5,035.84	5,097.72	4,919.48	20.67	23.62	114.33	-1,105.22	110.46	711.60	668.88	42.72	16.656	
5,300.00	5,135.84	5,192.17	5,008.68	20.77	24.24	116.51	-1,136.18	112.69	728.51	685.38	43.13	16.889	
5,400.00	5,235.84	5,286.62	5,097.89	20.88	24.86	118.59	-1,167.13	114.92	746.49	702.99	43.50	17.161	
5,500.00	5,335.84	5,381.06	5,187.09	20.99	25.48	120.59	-1,198.09	117.15	765.45	721.62	43.83	17.465	
5,600.00	5,435.84	5,475.51	5,276.29	21.10	26.11	122.49	-1,229.04	119.39	785.33	741.21	44.12	17.800	
5,700.00	5,535.84	5,569.96	5,365.49	21.21	26.73	124.30	-1,260.00	121.62	806.06	761.68	44.38	18.161	
5,800.00	5,635.84	5,666.07	5,475.85	21.33	27.29	126.30	-1,295.96	124.21	826.38	781.86	44.52	18.562	
5,900.00	5,735.84	5,805.88	5,591.17	21.44	27.78	128.00	-1,328.35	126.54	844.66	800.02	44.64	18.921	
6,000.00	5,835.84	5,928.34	5,710.33	21.56	28.23	129.41	-1,356.46	128.57	860.54	815.76	44.77	19.220	
6,100.00	5,935.84	6,053.08	5,832.84	21.68	28.62	130.53	-1,379.85	130.25	873.74	828.82	44.92	19.449	
6,200.00	6,035.84	6,179.68	5,958.10	21.80	28.96	131.38	-1,398.12	131.57	884.05	838.94	45.10	19.600	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #1 10-26-09 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	
6,300.00	6,135.84	6,307.69	6,085.45	21.92	29.23	131.96	-1,410.97	132.49	891.28	845.97	45.31	19.672	
6,400.00	6,235.84	6,436.60	6,214.14	22.05	29.42	132.28	-1,418.16	133.01	895.33	849.79	45.54	19.662	
6,500.00	6,335.84	6,558.32	6,335.84	22.17	29.55	132.35	-1,419.76	133.13	896.23	850.43	45.79	19.571	
6,600.00	6,435.84	6,658.32	6,435.84	22.30	29.64	132.35	-1,419.76	133.13	896.23	850.19	46.03	19.470	
6,700.00	6,535.84	6,758.32	6,535.84	22.43	29.73	132.35	-1,419.76	133.13	896.23	849.96	46.27	19.370	
6,800.00	6,635.84	6,858.32	6,635.84	22.56	29.81	132.35	-1,419.76	133.13	896.23	849.72	46.51	19.269	
6,900.00	6,735.84	6,958.32	6,735.84	22.69	29.90	132.35	-1,419.76	133.13	896.23	849.47	46.75	19.169	
7,000.00	6,835.84	7,058.32	6,835.84	22.83	29.99	132.35	-1,419.76	133.13	896.23	849.22	47.00	19.068	
7,100.00	6,935.84	7,158.32	6,935.84	22.96	30.08	132.35	-1,419.76	133.13	896.23	848.97	47.25	18.967	
7,200.00	7,035.84	7,258.32	7,035.84	23.10	30.17	132.35	-1,419.76	133.13	896.23	848.72	47.50	18.866	
7,300.00	7,135.84	7,358.32	7,135.84	23.24	30.27	132.35	-1,419.76	133.13	896.23	848.46	47.76	18.765	
7,400.00	7,235.84	7,458.32	7,235.84	23.37	30.36	132.35	-1,419.76	133.13	896.23	848.21	48.02	18.664	
7,500.00	7,335.84	7,558.32	7,335.84	23.51	30.46	132.35	-1,419.76	133.13	896.23	847.94	48.28	18.563	
7,600.00	7,435.84	7,658.32	7,435.84	23.66	30.56	132.35	-1,419.76	133.13	896.23	847.68	48.55	18.462	
7,700.00	7,535.84	7,758.32	7,535.84	23.80	30.66	132.35	-1,419.76	133.13	896.23	847.41	48.81	18.361	
7,800.00	7,635.84	7,858.32	7,635.84	23.94	30.76	132.35	-1,419.76	133.13	896.23	847.14	49.08	18.260	
7,900.00	7,735.84	7,958.32	7,735.84	24.09	30.86	132.35	-1,419.76	133.13	896.23	846.87	49.35	18.159	
8,000.00	7,835.84	8,058.32	7,835.84	24.24	30.96	132.35	-1,419.76	133.13	896.23	846.60	49.63	18.059	
8,043.16	7,879.00	8,101.47	7,879.00	24.30	31.01	132.35	-1,419.76	133.13	896.23	846.48	49.75	18.015	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												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	
0.00	0.00	0.00	0.00	0.00	0.00	89.59	0.56	78.41	78.41				
100.00	100.00	100.00	100.00	0.10	0.10	89.59	0.56	78.41	78.41	78.22	0.19	410.430	
200.00	200.00	200.00	200.00	0.32	0.32	89.59	0.56	78.41	78.41	77.77	0.64	122.409	
300.00	300.00	300.00	300.00	0.55	0.55	89.59	0.56	78.41	78.41	77.32	1.09	71.931	
400.00	400.00	400.00	400.00	0.77	0.77	89.59	0.56	78.41	78.41	76.87	1.54	50.929	
500.00	500.00	500.00	500.00	0.99	0.99	89.59	0.56	78.41	78.41	76.42	1.99	39.420	
600.00	600.00	600.00	600.00	1.22	1.22	89.59	0.56	78.41	78.41	75.97	2.44	32.153	
700.00	700.00	700.00	700.00	1.44	1.44	89.59	0.56	78.41	78.41	75.52	2.89	27.149	
800.00	800.00	800.00	800.00	1.67	1.67	89.59	0.56	78.41	78.41	75.08	3.34	23.493	
900.00	900.00	900.00	900.00	1.89	1.89	89.59	0.56	78.41	78.41	74.63	3.79	20.704	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.59	0.56	78.41	78.41	74.18	4.24	18.507	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.59	0.56	78.41	78.41	73.73	4.69	16.732	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.59	0.56	78.41	78.41	73.28	5.14	15.268	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.59	0.56	78.41	78.41	73.05	5.36	14.627 CC, ES	
1,300.00	1,300.00	1,299.04	1,299.04	2.78	2.78	-123.41	0.26	78.71	78.96	73.40	5.56	14.208	
1,400.00	1,399.93	1,397.00	1,396.93	2.96	2.96	-123.67	-2.09	81.10	83.29	77.39	5.91	14.105 SF	
1,500.00	1,499.68	1,494.53	1,494.23	3.14	3.14	-124.10	-6.77	85.84	91.96	85.70	6.27	14.676	
1,600.00	1,599.13	1,591.38	1,590.57	3.34	3.34	-124.60	-13.71	92.88	104.93	98.28	6.65	15.789	
1,700.00	1,698.15	1,687.29	1,685.59	3.57	3.57	-125.06	-22.83	102.13	122.16	115.10	7.05	17.317	
1,800.00	1,796.63	1,782.00	1,778.95	3.83	3.82	-125.42	-34.03	113.48	143.58	136.07	7.50	19.134	
1,900.00	1,894.44	1,875.30	1,870.35	4.14	4.10	-125.67	-47.17	126.81	169.11	161.11	8.00	21.129	
2,000.00	1,991.46	1,966.97	1,959.51	4.50	4.42	-125.81	-62.11	141.96	198.67	190.10	8.56	23.201	
2,100.00	2,087.58	2,056.81	2,046.19	4.91	4.78	-125.83	-78.69	158.78	232.13	222.94	9.19	25.261	
2,200.00	2,182.68	2,144.68	2,130.20	5.39	5.19	-125.75	-96.74	177.08	269.39	259.51	9.89	27.246	
2,300.00	2,276.65	2,230.41	2,211.38	5.94	5.63	-125.58	-116.09	196.70	310.32	299.66	10.66	29.111	
2,375.62	2,346.88	2,293.75	2,270.81	6.39	5.99	-125.39	-131.47	212.31	343.63	332.34	11.29	30.432	
2,400.00	2,369.40	2,313.92	2,289.63	6.55	6.12	-125.51	-136.57	217.47	354.74	343.22	11.52	30.802	
2,500.00	2,461.78	2,395.74	2,365.44	7.20	6.64	-125.74	-158.18	239.39	401.28	388.81	12.47	32.191	
2,600.00	2,554.16	2,476.07	2,438.98	7.88	7.21	-125.67	-180.86	262.40	449.36	435.89	13.47	33.354	
2,700.00	2,646.54	2,554.81	2,510.16	8.57	7.81	-125.38	-204.50	286.36	498.94	484.42	14.52	34.357	
2,800.00	2,738.92	2,631.90	2,578.93	9.27	8.45	-124.94	-228.96	311.17	550.00	534.39	15.61	35.239	
2,900.00	2,831.30	2,707.28	2,645.24	9.99	9.10	-124.41	-254.12	336.69	602.53	585.81	16.72	36.036	
3,000.00	2,923.68	2,790.75	2,718.05	10.71	9.88	-123.80	-282.78	365.75	655.92	638.00	17.92	36.598	
3,100.00	3,016.06	2,875.11	2,791.63	11.44	10.67	-123.28	-311.74	395.13	709.37	690.23	19.14	37.053	
3,200.00	3,108.44	2,959.46	2,865.21	12.17	11.48	-122.83	-340.71	424.50	762.86	742.48	20.38	37.435	
3,300.00	3,200.82	3,043.82	2,938.79	12.91	12.29	-122.44	-369.67	453.88	816.37	794.75	21.62	37.758	
3,400.00	3,293.20	3,128.17	3,012.37	13.65	13.11	-122.10	-398.64	483.25	869.90	847.03	22.87	38.035	
3,500.00	3,385.58	3,212.53	3,085.95	14.40	13.94	-121.80	-427.60	512.62	923.46	899.33	24.13	38.274	
3,600.00	3,477.96	3,296.88	3,159.53	15.15	14.77	-121.53	-456.57	542.00	977.03	951.64	25.39	38.481	
3,700.00	3,570.34	3,381.24	3,233.11	15.90	15.61	-121.29	-485.53	571.37	1,030.62	1,003.96	26.66	38.661	
3,775.54	3,640.12	3,444.96	3,288.69	16.47	16.24	-121.12	-507.41	593.56	1,071.11	1,043.49	27.62	38.784	
3,800.00	3,662.76	3,465.62	3,306.71	16.63	16.45	-121.33	-514.50	600.76	1,084.17	1,056.23	27.94	38.798	
3,900.00	3,756.10	3,550.57	3,380.82	17.16	17.30	-122.05	-543.67	630.34	1,136.64	1,107.45	29.19	38.938	
4,000.00	3,850.63	3,636.24	3,455.54	17.66	18.16	-122.59	-573.09	660.17	1,187.56	1,157.14	30.42	39.036	
4,100.00	3,946.24	3,722.53	3,530.81	18.13	19.03	-122.96	-602.72	690.22	1,236.93	1,205.30	31.63	39.109	
4,200.00	4,042.82	3,809.33	3,606.52	18.56	19.90	-123.19	-632.52	720.44	1,284.76	1,251.96	32.80	39.170	
4,300.00	4,140.24	3,896.53	3,682.58	18.95	20.78	-123.30	-662.46	750.81	1,331.07	1,297.14	33.93	39.230	
4,400.00	4,238.39	3,984.02	3,758.90	19.30	21.67	-123.29	-692.50	781.28	1,375.90	1,340.88	35.01	39.296	
4,500.00	4,337.15	4,071.71	3,835.39	19.60	22.56	-123.18	-722.61	811.81	1,419.28	1,383.24	36.04	39.377	
4,600.00	4,436.40	4,159.49	3,911.95	19.86	23.45	-122.97	-752.75	842.38	1,461.27	1,424.26	37.01	39.480	
4,700.00	4,536.01	4,247.24	3,988.49	20.07	24.34	-122.69	-782.88	872.93	1,501.94	1,464.02	37.92	39.609	
4,800.00	4,635.86	4,334.86	4,064.92	20.24	25.23	-122.33	-812.97	903.44	1,541.35	1,502.59	38.76	39.771	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #1 10-26-09 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
4,901.16	4,737.00	4,423.25	4,142.02	20.36	26.13	91.07	-843.32	934.22	1,580.01	1,540.48	39.53	39.967	
5,000.00	4,835.84	4,509.47	4,217.23	20.46	27.01	92.18	-872.92	964.25	1,617.53	1,577.39	40.14	40.298	
5,100.00	4,935.84	4,596.69	4,293.31	20.57	27.90	93.26	-902.87	994.62	1,656.05	1,615.33	40.73	40.663	
5,200.00	5,035.84	4,683.92	4,369.40	20.67	28.79	94.30	-932.82	1,024.99	1,695.11	1,653.82	41.29	41.053	
5,300.00	5,135.84	4,771.15	4,445.48	20.77	29.68	95.29	-962.77	1,055.37	1,734.67	1,692.84	41.84	41.463	
5,400.00	5,235.84	4,858.37	4,521.57	20.88	30.57	96.24	-992.72	1,085.74	1,774.70	1,732.33	42.36	41.892	
5,500.00	5,335.84	4,945.60	4,597.65	20.99	31.47	97.16	-1,022.67	1,116.12	1,815.16	1,772.28	42.87	42.338	
5,600.00	5,435.84	5,032.83	4,673.73	21.10	32.36	98.04	-1,052.62	1,146.49	1,856.03	1,812.66	43.37	42.797	
5,700.00	5,535.84	5,120.05	4,749.82	21.21	33.25	98.88	-1,082.58	1,176.86	1,897.27	1,853.42	43.85	43.269	
5,800.00	5,635.84	5,207.28	4,825.90	21.33	34.15	99.69	-1,112.53	1,207.24	1,938.88	1,894.56	44.32	43.751	
5,900.00	5,735.84	5,294.51	4,901.99	21.44	35.04	100.47	-1,142.48	1,237.61	1,980.81	1,936.04	44.77	44.242	
6,000.00	5,835.84	5,486.62	5,071.98	21.56	36.66	102.00	-1,205.27	1,301.29	2,021.34	1,975.91	45.43	44.497	
6,100.00	5,935.84	5,727.19	5,292.63	21.68	38.26	103.52	-1,272.44	1,369.42	2,055.94	2,009.91	46.03	44.661	
6,200.00	6,035.84	5,984.33	5,536.45	21.80	39.64	104.71	-1,329.61	1,427.39	2,083.63	2,037.04	46.59	44.721	
6,300.00	6,135.84	6,255.28	5,800.16	21.92	40.71	105.56	-1,372.98	1,471.38	2,103.65	2,056.55	47.09	44.670	
6,400.00	6,235.84	6,536.01	6,078.27	22.05	41.42	106.05	-1,399.27	1,498.04	2,115.38	2,067.84	47.55	44.491	
6,500.00	6,335.84	6,793.88	6,335.84	22.17	41.73	106.18	-1,406.51	1,505.38	2,118.56	2,070.62	47.94	44.191	
6,600.00	6,435.84	6,893.88	6,435.84	22.30	41.79	106.18	-1,406.51	1,505.38	2,118.56	2,070.39	48.17	43.981	
6,700.00	6,535.84	6,993.88	6,535.84	22.43	41.86	106.18	-1,406.51	1,505.38	2,118.56	2,070.16	48.40	43.771	
6,800.00	6,635.84	7,093.88	6,635.84	22.56	41.93	106.18	-1,406.51	1,505.38	2,118.56	2,069.92	48.64	43.559	
6,900.00	6,735.84	7,193.88	6,735.84	22.69	42.00	106.18	-1,406.51	1,505.38	2,118.56	2,069.69	48.87	43.348	
7,000.00	6,835.84	7,293.88	6,835.84	22.83	42.07	106.18	-1,406.51	1,505.38	2,118.56	2,069.45	49.11	43.135	
7,100.00	6,935.84	7,393.88	6,935.84	22.96	42.14	106.18	-1,406.51	1,505.38	2,118.56	2,069.20	49.36	42.922	
7,200.00	7,035.84	7,493.88	7,035.84	23.10	42.21	106.18	-1,406.51	1,505.38	2,118.56	2,068.96	49.60	42.709	
7,300.00	7,135.84	7,593.88	7,135.84	23.24	42.29	106.18	-1,406.51	1,505.38	2,118.56	2,068.71	49.85	42.495	
7,400.00	7,235.84	7,693.88	7,235.84	23.37	42.36	106.18	-1,406.51	1,505.38	2,118.56	2,068.45	50.11	42.281	
7,500.00	7,335.84	7,793.88	7,335.84	23.51	42.44	106.18	-1,406.51	1,505.38	2,118.56	2,068.20	50.36	42.067	
7,600.00	7,435.84	7,893.88	7,435.84	23.66	42.51	106.18	-1,406.51	1,505.38	2,118.56	2,067.94	50.62	41.853	
7,700.00	7,535.84	7,993.88	7,535.84	23.80	42.59	106.18	-1,406.51	1,505.38	2,118.56	2,067.68	50.88	41.639	
7,800.00	7,635.84	8,093.88	7,635.84	23.94	42.67	106.18	-1,406.51	1,505.38	2,118.56	2,067.42	51.14	41.425	
7,900.00	7,735.84	8,193.88	7,735.84	24.09	42.75	106.18	-1,406.51	1,505.38	2,118.56	2,067.15	51.41	41.211	
8,000.00	7,835.84	8,293.88	7,835.84	24.24	42.83	106.18	-1,406.51	1,505.38	2,118.56	2,066.88	51.68	40.997	
8,043.16	7,879.00	8,337.04	7,879.00	24.30	42.87	106.18	-1,406.51	1,505.38	2,118.56	2,066.77	51.79	40.904	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-Good_gyro												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	-90.37	-0.11	-16.80	16.80				
100.00	100.00	100.00	100.00	0.10	0.04	-90.37	-0.11	-16.80	16.80	16.66	0.14	119.993	
200.00	200.00	200.00	200.00	0.32	0.10	-90.37	-0.11	-16.80	16.80	16.39	0.42	40.279	
300.00	300.00	300.00	300.00	0.55	0.15	-90.37	-0.11	-16.80	16.80	16.11	0.69	24.202	
400.00	400.00	400.00	400.00	0.77	0.20	-90.37	-0.11	-16.80	16.80	15.83	0.97	17.297	
500.00	500.00	500.00	500.00	0.99	0.25	-90.37	-0.11	-16.80	16.80	15.55	1.25	13.458	
600.00	600.00	600.00	600.00	1.22	0.31	-90.37	-0.11	-16.80	16.80	15.28	1.53	11.013	
700.00	700.00	700.00	700.00	1.44	0.36	-90.37	-0.11	-16.80	16.80	15.00	1.80	9.320	
800.00	800.00	800.00	800.00	1.67	0.41	-90.37	-0.11	-16.80	16.80	14.72	2.08	8.079	
900.00	900.00	900.00	900.00	1.89	0.46	-90.37	-0.11	-16.80	16.80	14.45	2.36	7.129	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	0.52	-90.37	-0.11	-16.80	16.80	14.17	2.63	6.379	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	0.57	-90.37	-0.11	-16.80	16.80	13.89	2.91	5.772	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	0.62	-90.37	-0.11	-16.80	16.80	13.61	3.19	5.270	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	0.65	-90.37	-0.11	-16.80	16.80	13.48	3.33	5.050 CC, ES	
1,300.00	1,300.00	1,299.71	1,299.71	2.78	0.67	57.69	-0.17	-17.23	17.00	13.54	3.45	4.924 SF	
1,400.00	1,399.93	1,399.06	1,399.00	2.96	0.73	65.05	-0.65	-20.64	18.72	15.04	3.68	5.088	
1,500.00	1,499.68	1,498.24	1,497.92	3.14	0.78	75.99	-1.62	-27.44	22.86	18.94	3.92	5.835	
1,600.00	1,599.13	1,597.10	1,596.25	3.34	0.85	86.14	-3.07	-37.59	30.06	25.88	4.18	7.189	
1,700.00	1,698.15	1,695.55	1,693.75	3.57	0.93	93.70	-4.98	-51.03	40.49	36.00	4.48	9.032	
1,800.00	1,796.63	1,793.46	1,790.20	3.83	1.04	98.87	-7.35	-67.68	54.04	49.21	4.83	11.178	
1,900.00	1,894.44	1,890.72	1,885.39	4.14	1.18	102.34	-10.16	-87.44	70.59	65.34	5.25	13.449	
2,000.00	1,991.46	1,987.27	1,979.16	4.50	1.34	104.68	-13.40	-110.21	90.02	84.28	5.73	15.699	
2,100.00	2,087.58	2,084.84	2,073.53	4.91	1.53	107.10	-16.89	-134.73	111.37	105.08	6.29	17.696	
2,200.00	2,182.68	2,181.98	2,167.49	5.39	1.73	110.01	-20.36	-159.15	134.05	127.14	6.91	19.393	
2,300.00	2,276.65	2,278.57	2,260.91	5.94	1.94	113.12	-23.82	-183.43	158.36	150.78	7.58	20.891	
2,375.62	2,346.88	2,351.17	2,331.13	6.39	2.10	115.48	-26.42	-201.67	178.01	169.90	8.11	21.944	
2,400.00	2,369.40	2,374.51	2,353.71	6.55	2.15	116.33	-27.25	-207.54	184.55	176.26	8.29	22.267	
2,500.00	2,461.78	2,470.25	2,446.31	7.20	2.36	119.27	-30.67	-231.61	211.72	202.70	9.02	23.478	
2,600.00	2,554.16	2,565.99	2,538.92	7.88	2.58	121.54	-34.10	-255.67	239.29	229.53	9.76	24.527	
2,700.00	2,646.54	2,661.73	2,631.52	8.57	2.79	123.34	-37.52	-279.73	267.14	256.64	10.50	25.438	
2,800.00	2,738.92	2,757.47	2,724.12	9.27	3.01	124.80	-40.95	-303.80	295.18	283.93	11.25	26.233	
2,900.00	2,831.30	2,853.20	2,816.72	9.99	3.24	126.01	-44.37	-327.86	323.38	311.37	12.01	26.929	
3,000.00	2,923.68	2,948.94	2,909.32	10.71	3.46	127.02	-47.80	-351.93	351.68	338.91	12.77	27.543	
3,100.00	3,016.06	3,044.68	3,001.92	11.44	3.68	127.89	-51.22	-375.99	380.07	366.54	13.53	28.087	
3,200.00	3,108.44	3,140.42	3,094.53	12.17	3.90	128.63	-54.64	-400.05	408.54	394.24	14.30	28.572	
3,300.00	3,200.82	3,236.16	3,187.13	12.91	4.13	129.28	-58.07	-424.12	437.05	421.98	15.07	29.007	
3,400.00	3,293.20	3,331.90	3,279.73	13.65	4.35	129.85	-61.49	-448.18	465.61	449.77	15.84	29.397	
3,500.00	3,385.58	3,427.64	3,372.33	14.40	4.58	130.35	-64.92	-472.25	494.21	477.60	16.61	29.751	
3,600.00	3,477.96	3,523.37	3,464.93	15.15	4.80	130.80	-68.34	-496.31	522.84	505.45	17.39	30.072	
3,700.00	3,570.34	3,619.11	3,557.53	15.90	5.03	131.20	-71.77	-520.37	551.50	533.33	18.16	30.364	
3,775.54	3,640.12	3,691.43	3,627.49	16.47	5.20	131.48	-74.35	-538.55	573.16	554.41	18.75	30.569	
3,800.00	3,662.76	3,714.87	3,650.16	16.63	5.25	131.66	-75.19	-544.44	580.11	561.19	18.92	30.658	
3,900.00	3,756.10	3,811.14	3,743.27	17.16	5.48	132.22	-78.63	-568.64	607.13	587.57	19.56	31.033	
4,000.00	3,850.63	3,908.01	3,836.96	17.66	5.71	132.48	-82.10	-592.99	631.90	611.69	20.21	31.262	
4,100.00	3,946.24	4,005.37	3,931.14	18.13	5.94	132.48	-85.58	-617.46	654.39	633.52	20.86	31.366	
4,200.00	4,042.82	4,103.11	4,025.67	18.56	6.17	132.25	-89.08	-642.03	674.61	653.10	21.51	31.363	
4,300.00	4,140.24	4,201.10	4,120.45	18.95	6.41	131.79	-92.58	-666.66	692.61	670.46	22.15	31.271	
4,400.00	4,238.39	4,299.22	4,215.36	19.30	6.64	131.13	-96.09	-691.32	708.46	685.68	22.78	31.105	
4,500.00	4,337.15	4,397.36	4,310.28	19.60	6.87	130.27	-99.60	-715.99	722.25	698.86	23.39	30.880	
4,600.00	4,436.40	4,495.39	4,405.10	19.86	7.10	129.22	-103.11	-740.63	734.09	710.11	23.98	30.611	
4,700.00	4,536.01	4,593.20	4,499.70	20.07	7.34	127.99	-106.61	-765.21	744.14	719.59	24.55	30.311	
4,800.00	4,635.86	4,690.66	4,593.97	20.24	7.57	126.56	-110.09	-789.71	752.56	727.46	25.09	29.994	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_DRY CREEK PAD 7 - P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #1 10-26-09 RHS												Offset Well Error:	0.00 ft
Survey Program: 0-Good_gyro													
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
4,901.16	4,737.00	4,788.78	4,688.88	20.36	7.80	-22.09	-113.60	-814.37	759.62	734.01	25.60	29.668	
5,000.00	4,835.84	4,884.38	4,781.35	20.46	8.03	-23.86	-117.02	-838.40	766.27	740.16	26.11	29.351	
5,100.00	4,935.84	4,981.11	4,874.90	20.57	8.26	-25.62	-120.48	-862.71	773.76	747.16	26.60	29.093	
5,200.00	5,035.84	5,077.83	4,968.46	20.67	8.49	-27.34	-123.94	-887.02	782.01	754.94	27.07	28.893	
5,300.00	5,135.84	5,174.55	5,062.01	20.77	8.72	-29.03	-127.40	-911.34	790.99	763.47	27.51	28.749	
5,400.00	5,235.84	5,271.28	5,155.57	20.88	8.95	-30.67	-130.86	-935.65	800.67	772.73	27.94	28.655	
5,500.00	5,335.84	5,368.00	5,249.12	20.99	9.18	-32.29	-134.32	-959.96	811.03	782.68	28.35	28.607	
5,600.00	5,435.84	5,464.72	5,342.67	21.10	9.41	-33.86	-137.78	-984.27	822.05	793.31	28.74	28.602	
5,700.00	5,535.84	5,561.45	5,436.23	21.21	9.64	-35.39	-141.24	-1,008.58	833.69	804.58	29.11	28.636	
5,800.00	5,635.84	5,658.17	5,529.78	21.33	9.87	-36.88	-144.70	-1,032.89	845.94	816.47	29.47	28.707	
5,900.00	5,735.84	5,757.10	5,625.48	21.44	10.10	-38.36	-148.23	-1,057.73	858.74	828.93	29.81	28.806	
6,000.00	5,835.84	5,872.80	5,738.08	21.56	10.35	-39.88	-151.97	-1,084.01	870.81	840.66	30.15	28.884	
6,100.00	5,935.84	5,990.53	5,853.67	21.68	10.57	-41.12	-155.12	-1,106.11	881.10	850.66	30.45	28.940	
6,200.00	6,035.84	6,109.96	5,971.76	21.80	10.74	-42.08	-157.62	-1,123.70	889.38	858.68	30.70	28.968	
6,300.00	6,135.84	6,230.68	6,091.78	21.92	10.86	-42.77	-159.44	-1,136.52	895.46	864.54	30.92	28.957	
6,400.00	6,235.84	6,352.29	6,213.12	22.05	10.95	-43.18	-160.56	-1,144.37	899.19	868.07	31.12	28.897	
6,500.00	6,335.84	6,474.36	6,335.14	22.17	11.00	-43.33	-160.95	-1,147.10	900.49	869.21	31.29	28.783	
6,600.00	6,435.84	6,575.05	6,435.84	22.30	11.01	-43.33	-160.95	-1,147.10	900.50	869.06	31.44	28.646	
6,700.00	6,535.84	6,675.05	6,535.84	22.43	11.03	-43.33	-160.95	-1,147.10	900.50	868.91	31.59	28.509	
6,800.00	6,635.84	6,775.05	6,635.84	22.56	11.05	-43.33	-160.95	-1,147.10	900.50	868.76	31.74	28.372	
6,900.00	6,735.84	6,875.05	6,735.84	22.69	11.06	-43.33	-160.95	-1,147.10	900.50	868.60	31.89	28.235	
7,000.00	6,835.84	6,975.05	6,835.84	22.83	11.08	-43.33	-160.95	-1,147.10	900.50	868.45	32.05	28.097	
7,100.00	6,935.84	7,075.05	6,935.84	22.96	11.10	-43.33	-160.95	-1,147.10	900.50	868.29	32.21	27.960	
7,200.00	7,035.84	7,175.05	7,035.84	23.10	11.12	-43.33	-160.95	-1,147.10	900.50	868.13	32.37	27.822	
7,300.00	7,135.84	7,275.05	7,135.84	23.24	11.13	-43.33	-160.95	-1,147.10	900.50	867.97	32.53	27.685	
7,400.00	7,235.84	7,375.05	7,235.84	23.37	11.15	-43.33	-160.95	-1,147.10	900.50	867.81	32.69	27.547	
7,500.00	7,335.84	7,475.05	7,335.84	23.51	11.17	-43.33	-160.95	-1,147.10	900.50	867.64	32.85	27.410	
7,600.00	7,435.84	7,575.05	7,435.84	23.66	11.19	-43.33	-160.95	-1,147.10	900.50	867.48	33.02	27.272	
7,700.00	7,535.84	7,675.05	7,535.84	23.80	11.21	-43.33	-160.95	-1,147.10	900.50	867.31	33.19	27.135	
7,800.00	7,635.84	7,775.05	7,635.84	23.94	11.23	-43.33	-160.95	-1,147.10	900.50	867.14	33.35	26.998	
7,900.00	7,735.84	7,875.05	7,735.84	24.09	11.24	-43.33	-160.95	-1,147.10	900.50	866.97	33.52	26.861	
8,000.00	7,835.84	7,975.05	7,835.84	24.24	11.26	-43.33	-160.95	-1,147.10	900.50	866.80	33.70	26.724	
8,043.16	7,879.00	8,018.21	7,879.00	24.30	11.27	-43.33	-160.95	-1,147.10	900.50	866.73	33.77	26.665	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 10-26-09 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)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)		Distance Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.58	0.45	61.61	61.61				
100.00	100.00	100.00	100.00	0.10	0.10	89.58	0.45	61.61	61.61	61.42	0.19	322.480	
200.00	200.00	200.00	200.00	0.32	0.32	89.58	0.45	61.61	61.61	60.97	0.64	96.178	
300.00	300.00	300.00	300.00	0.55	0.55	89.58	0.45	61.61	61.61	60.52	1.09	56.517	
400.00	400.00	400.00	400.00	0.77	0.77	89.58	0.45	61.61	61.61	60.07	1.54	40.016	
500.00	500.00	500.00	500.00	0.99	0.99	89.58	0.45	61.61	61.61	59.62	1.99	30.973	
600.00	600.00	600.00	600.00	1.22	1.22	89.58	0.45	61.61	61.61	59.17	2.44	25.263	
700.00	700.00	700.00	700.00	1.44	1.44	89.58	0.45	61.61	61.61	58.72	2.89	21.331	
800.00	800.00	800.00	800.00	1.67	1.67	89.58	0.45	61.61	61.61	58.27	3.34	18.458	
900.00	900.00	900.00	900.00	1.89	1.89	89.58	0.45	61.61	61.61	57.82	3.79	16.268	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.58	0.45	61.61	61.61	57.37	4.24	14.542	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.58	0.45	61.61	61.61	56.92	4.69	13.147	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.58	0.45	61.61	61.61	56.47	5.14	11.996	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.58	0.45	61.61	61.61	56.25	5.36	11.493 CC, ES	
1,300.00	1,300.00	1,299.12	1,299.12	2.78	2.79	-123.93	0.70	61.95	62.20	56.64	5.57	11.174 SF	
1,400.00	1,399.93	1,397.03	1,396.97	2.96	3.00	-127.91	2.66	64.67	67.13	61.19	5.95	11.288	
1,500.00	1,499.68	1,493.94	1,493.64	3.14	3.21	-134.24	6.53	70.02	77.79	71.46	6.33	12.291	
1,600.00	1,599.13	1,589.19	1,588.40	3.34	3.43	-140.85	12.19	77.87	95.03	88.32	6.71	14.164	
1,700.00	1,698.15	1,682.21	1,680.57	3.57	3.67	-146.51	19.50	87.99	119.20	112.11	7.08	16.828	
1,800.00	1,796.63	1,772.45	1,769.56	3.83	3.91	-150.89	28.26	100.13	150.19	142.74	7.45	20.158	
1,900.00	1,894.44	1,859.44	1,854.86	4.14	4.18	-154.14	38.25	113.97	187.70	179.88	7.81	24.028	
2,000.00	1,991.46	1,942.80	1,936.07	4.50	4.46	-156.51	49.25	129.20	231.31	223.15	8.16	28.330	
2,100.00	2,087.58	2,022.21	2,012.89	4.91	4.76	-158.23	61.00	145.48	280.65	272.14	8.51	32.972	
2,200.00	2,182.68	2,100.00	2,087.58	5.39	5.09	-159.52	73.72	163.10	335.34	326.48	8.86	37.860	
2,300.00	2,276.65	2,168.29	2,152.64	5.94	5.41	-160.35	85.86	179.92	394.96	385.77	9.19	42.960	
2,375.62	2,346.88	2,221.33	2,202.85	6.39	5.68	-160.87	95.89	193.80	443.08	433.63	9.45	46.877	
2,400.00	2,369.40	2,239.78	2,220.28	6.55	5.77	-161.17	99.41	198.69	458.93	449.36	9.56	47.992	
2,500.00	2,461.78	2,315.44	2,291.79	7.20	6.18	-162.21	113.88	218.72	523.96	513.94	10.02	52.288	
2,600.00	2,554.16	2,391.09	2,363.29	7.88	6.59	-163.02	128.34	238.76	589.08	578.59	10.49	56.146	
2,700.00	2,646.54	2,466.74	2,434.80	8.57	7.02	-163.68	142.81	258.79	654.25	643.28	10.98	59.611	
2,800.00	2,738.92	2,542.40	2,506.31	9.27	7.46	-164.21	157.27	278.83	719.47	708.00	11.47	62.744	
2,900.00	2,831.30	2,618.05	2,577.81	9.99	7.91	-164.66	171.73	298.86	784.71	772.74	11.97	65.583	
3,000.00	2,923.68	2,693.71	2,649.32	10.71	8.36	-165.04	186.20	318.90	849.97	837.50	12.47	68.158	
3,100.00	3,016.06	2,769.36	2,720.82	11.44	8.82	-165.36	200.66	338.93	915.26	902.28	12.98	70.495	
3,200.00	3,108.44	2,845.02	2,792.33	12.17	9.28	-165.64	215.13	358.97	980.56	967.06	13.50	72.632	
3,300.00	3,200.82	2,920.67	2,863.83	12.91	9.74	-165.89	229.59	379.00	1,045.87	1,031.85	14.02	74.589	
3,400.00	3,293.20	2,996.33	2,935.34	13.65	10.21	-166.11	244.05	399.04	1,111.19	1,096.64	14.55	76.385	
3,500.00	3,385.58	3,071.98	3,006.84	14.40	10.69	-166.30	258.52	419.07	1,176.52	1,161.44	15.08	78.033	
3,600.00	3,477.96	3,147.64	3,078.35	15.15	11.16	-166.47	272.98	439.11	1,241.85	1,226.24	15.61	79.555	
3,700.00	3,570.34	3,223.29	3,149.85	15.90	11.64	-166.63	287.44	459.14	1,307.20	1,291.05	16.15	80.963	
3,775.54	3,640.12	3,280.44	3,203.87	16.47	12.00	-166.74	298.37	474.27	1,356.56	1,340.01	16.55	81.957	
3,800.00	3,662.76	3,299.01	3,221.42	16.63	12.12	-166.87	301.92	479.19	1,372.46	1,355.75	16.72	82.097	
3,900.00	3,756.10	3,376.31	3,294.48	17.16	12.62	-167.33	316.70	499.66	1,435.87	1,418.50	17.38	82.638	
4,000.00	3,850.63	3,455.73	3,369.55	17.66	13.12	-167.71	331.88	520.70	1,496.62	1,478.59	18.03	83.026	
4,100.00	3,946.24	3,537.19	3,446.54	18.13	13.65	-168.03	347.46	542.27	1,554.62	1,535.95	18.66	83.291	
4,200.00	4,042.82	3,620.58	3,525.35	18.56	14.18	-168.28	363.40	564.35	1,609.80	1,590.51	19.29	83.455	
4,300.00	4,140.24	3,705.79	3,605.89	18.95	14.73	-168.48	379.69	586.92	1,662.10	1,642.20	19.90	83.537	
4,400.00	4,238.39	3,792.74	3,688.07	19.30	15.29	-168.64	396.31	609.94	1,711.46	1,690.98	20.48	83.549	
4,500.00	4,337.15	3,881.31	3,771.78	19.60	15.87	-168.75	413.25	633.40	1,757.82	1,736.77	21.05	83.504	
4,600.00	4,436.40	4,030.93	3,913.71	19.86	16.73	-168.76	440.96	671.78	1,800.51	1,778.78	21.74	82.833	
4,700.00	4,536.01	4,282.44	4,156.99	20.07	17.79	-168.67	478.12	723.25	1,833.65	1,811.07	22.58	81.222	
4,800.00	4,635.86	4,549.72	4,420.56	20.24	18.62	-168.60	503.76	758.77	1,854.91	1,831.55	23.35	79.429	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 10-26-09 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
4,901.16	4,737.00	4,829.43	4,699.49	20.36	19.15	44.40	515.08	774.46	1,863.56	1,839.53	24.03	77.544	
5,000.00	4,835.84	4,965.79	4,835.84	20.46	19.31	44.41	515.43	774.94	1,863.77	1,839.34	24.43	76.296	
5,100.00	4,935.84	5,065.79	4,935.84	20.57	19.43	44.41	515.43	774.94	1,863.77	1,839.00	24.78	75.224	
5,200.00	5,035.84	5,165.79	5,035.84	20.67	19.55	44.41	515.43	774.94	1,863.77	1,838.64	25.13	74.173	
5,300.00	5,135.84	5,265.79	5,135.84	20.77	19.67	44.41	515.43	774.94	1,863.77	1,838.29	25.48	73.143	
5,400.00	5,235.84	5,365.79	5,235.84	20.88	19.79	44.41	515.43	774.94	1,863.77	1,837.93	25.84	72.132	
5,500.00	5,335.84	5,465.79	5,335.84	20.99	19.92	44.41	515.43	774.94	1,863.77	1,837.57	26.20	71.141	
5,600.00	5,435.84	5,565.79	5,435.84	21.10	20.05	44.41	515.43	774.94	1,863.77	1,837.21	26.56	70.169	
5,700.00	5,535.84	5,665.79	5,535.84	21.21	20.18	44.41	515.43	774.94	1,863.77	1,836.85	26.93	69.218	
5,800.00	5,635.84	5,765.79	5,635.84	21.33	20.31	44.41	515.43	774.94	1,863.77	1,836.48	27.29	68.285	
5,900.00	5,735.84	5,865.79	5,735.84	21.44	20.44	44.41	515.43	774.94	1,863.77	1,836.11	27.66	67.371	
6,000.00	5,835.84	5,965.79	5,835.84	21.56	20.57	44.41	515.43	774.94	1,863.77	1,835.74	28.04	66.476	
6,100.00	5,935.84	6,065.79	5,935.84	21.68	20.71	44.41	515.43	774.94	1,863.77	1,835.36	28.41	65.599	
6,200.00	6,035.84	6,165.79	6,035.84	21.80	20.84	44.41	515.43	774.94	1,863.77	1,834.98	28.79	64.741	
6,300.00	6,135.84	6,265.79	6,135.84	21.92	20.98	44.41	515.43	774.94	1,863.77	1,834.60	29.17	63.900	
6,400.00	6,235.84	6,365.79	6,235.84	22.05	21.12	44.41	515.43	774.94	1,863.77	1,834.22	29.55	63.076	
6,500.00	6,335.84	6,465.79	6,335.84	22.17	21.26	44.41	515.43	774.94	1,863.77	1,833.84	29.93	62.269	
6,600.00	6,435.84	6,565.79	6,435.84	22.30	21.40	44.41	515.43	774.94	1,863.77	1,833.46	30.32	61.479	
6,700.00	6,535.84	6,665.79	6,535.84	22.43	21.55	44.41	515.43	774.94	1,863.77	1,833.07	30.70	60.706	
6,800.00	6,635.84	6,765.79	6,635.84	22.56	21.69	44.41	515.43	774.94	1,863.77	1,832.68	31.09	59.948	
6,900.00	6,735.84	6,865.79	6,735.84	22.69	21.84	44.41	515.43	774.94	1,863.77	1,832.29	31.48	59.206	
7,000.00	6,835.84	6,965.79	6,835.84	22.83	21.99	44.41	515.43	774.94	1,863.77	1,831.90	31.87	58.479	
7,100.00	6,935.84	7,065.79	6,935.84	22.96	22.14	44.41	515.43	774.94	1,863.77	1,831.51	32.26	57.767	
7,200.00	7,035.84	7,165.79	7,035.84	23.10	22.29	44.41	515.43	774.94	1,863.77	1,831.11	32.66	57.070	
7,300.00	7,135.84	7,265.79	7,135.84	23.24	22.44	44.41	515.43	774.94	1,863.77	1,830.72	33.05	56.387	
7,400.00	7,235.84	7,365.79	7,235.84	23.37	22.59	44.41	515.43	774.94	1,863.77	1,830.32	33.45	55.718	
7,500.00	7,335.84	7,465.79	7,335.84	23.51	22.75	44.41	515.43	774.94	1,863.77	1,829.92	33.85	55.062	
7,600.00	7,435.84	7,565.79	7,435.84	23.66	22.90	44.41	515.43	774.94	1,863.77	1,829.52	34.25	54.419	
7,700.00	7,535.84	7,665.79	7,535.84	23.80	23.06	44.41	515.43	774.94	1,863.77	1,829.12	34.65	53.790	
7,800.00	7,635.84	7,765.79	7,635.84	23.94	23.22	44.41	515.43	774.94	1,863.77	1,828.72	35.05	53.173	
7,900.00	7,735.84	7,865.79	7,735.84	24.09	23.38	44.41	515.43	774.94	1,863.77	1,828.32	35.45	52.568	
8,000.00	7,835.84	7,965.79	7,835.84	24.24	23.54	44.41	515.43	774.94	1,863.77	1,827.91	35.86	51.976	
8,043.16	7,879.00	8,008.95	7,879.00	24.30	23.61	44.41	515.43	774.94	1,863.77	1,827.74	36.03	51.724	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 4-27 - P_DRY CREEK 4-27 - PLAN #1 10-26-09 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)	Semi Major Axis 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	89.57	0.11	14.00	14.00				
100.00	100.00	100.00	100.00	0.10	0.10	89.57	0.11	14.00	14.00	13.81	0.19	73.291	
200.00	200.00	200.00	200.00	0.32	0.32	89.57	0.11	14.00	14.00	13.36	0.64	21.859	
300.00	300.00	300.00	300.00	0.55	0.55	89.57	0.11	14.00	14.00	12.91	1.09	12.845	
400.00	400.00	400.00	400.00	0.77	0.77	89.57	0.11	14.00	14.00	12.46	1.54	9.095	
500.00	500.00	500.00	500.00	0.99	0.99	89.57	0.11	14.00	14.00	12.01	1.99	7.039	
600.00	600.00	600.00	600.00	1.22	1.22	89.57	0.11	14.00	14.00	11.56	2.44	5.742	
700.00	700.00	700.00	700.00	1.44	1.44	89.57	0.11	14.00	14.00	11.11	2.89	4.848	
800.00	800.00	800.00	800.00	1.67	1.67	89.57	0.11	14.00	14.00	10.66	3.34	4.195	
900.00	900.00	900.00	900.00	1.89	1.89	89.57	0.11	14.00	14.00	10.22	3.79	3.697	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.57	0.11	14.00	14.00	9.77	4.24	3.305	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.57	0.11	14.00	14.00	9.32	4.69	2.988	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.57	0.11	14.00	14.00	8.87	5.14	2.726	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.57	0.11	14.00	14.00	8.64	5.36	2.612	
1,300.00	1,300.00	1,300.17	1,300.17	2.78	2.79	-126.13	0.40	13.68	13.94	8.37	5.57	2.502	
1,329.39	1,329.38	1,329.64	1,329.63	2.83	2.86	-130.32	0.85	13.19	13.90	8.22	5.68	2.445 CC, ES	
1,400.00	1,399.93	1,400.30	1,400.23	2.96	3.01	-147.58	2.77	11.10	14.56	8.60	5.96	2.444 SF	
1,500.00	1,499.68	1,499.79	1,499.47	3.14	3.23	-177.30	7.46	5.98	20.44	14.09	6.35	3.220	
1,600.00	1,599.13	1,598.23	1,597.37	3.34	3.46	164.08	14.39	-1.58	33.87	27.12	6.75	5.019	
1,700.00	1,698.15	1,695.22	1,693.43	3.57	3.71	154.73	23.43	-11.45	53.79	46.63	7.17	7.507	
1,800.00	1,796.63	1,790.42	1,787.22	3.83	3.98	149.68	34.44	-23.47	79.33	71.73	7.60	10.435	
1,900.00	1,894.44	1,883.48	1,878.33	4.14	4.27	146.63	47.23	-37.43	110.05	101.98	8.06	13.645	
2,000.00	1,991.46	1,974.11	1,966.42	4.50	4.59	144.59	61.60	-53.11	145.67	137.11	8.56	17.022	
2,100.00	2,087.58	2,062.06	2,051.23	4.91	4.95	143.09	77.34	-70.29	185.97	176.88	9.08	20.470	
2,200.00	2,182.68	2,147.11	2,132.52	5.39	5.34	141.90	94.23	-88.72	230.73	221.08	9.65	23.910	
2,300.00	2,276.65	2,229.09	2,210.15	5.94	5.75	140.89	112.04	-108.16	279.74	269.49	10.25	27.281	
2,375.62	2,346.88	2,288.97	2,266.34	6.39	6.08	140.19	125.99	-123.39	319.50	308.77	10.74	29.757	
2,400.00	2,369.40	2,307.91	2,284.03	6.55	6.19	140.16	130.57	-128.39	332.73	321.82	10.91	30.488	
2,500.00	2,461.78	2,391.02	2,361.45	7.20	6.69	140.00	150.98	-150.65	387.36	375.67	11.69	33.143	
2,600.00	2,554.16	2,474.77	2,439.48	7.88	7.22	139.88	171.54	-173.10	441.99	429.49	12.49	35.381	
2,700.00	2,646.54	2,558.53	2,517.51	8.57	7.76	139.78	192.11	-195.55	496.62	483.30	13.32	37.287	
2,800.00	2,738.92	2,642.28	2,595.53	9.27	8.31	139.70	212.68	-218.00	551.25	537.09	14.16	38.920	
2,900.00	2,831.30	2,726.04	2,673.56	9.99	8.87	139.64	233.25	-240.45	605.89	590.86	15.02	40.328	
3,000.00	2,923.68	2,809.79	2,751.58	10.71	9.44	139.58	253.82	-262.89	660.52	644.62	15.90	41.549	
3,100.00	3,016.06	2,893.55	2,829.61	11.44	10.02	139.54	274.38	-285.34	715.15	698.37	16.78	42.613	
3,200.00	3,108.44	2,977.30	2,907.63	12.17	10.60	139.50	294.95	-307.79	769.79	752.11	17.68	43.547	
3,300.00	3,200.82	3,061.06	2,985.66	12.91	11.19	139.47	315.52	-330.24	824.42	805.84	18.58	44.372	
3,400.00	3,293.20	3,144.81	3,063.68	13.65	11.78	139.44	336.09	-352.69	879.06	859.57	19.49	45.105	
3,500.00	3,385.58	3,228.57	3,141.71	14.40	12.37	139.41	356.66	-375.13	933.69	913.29	20.40	45.759	
3,600.00	3,477.96	3,312.32	3,219.73	15.15	12.97	139.39	377.23	-397.58	988.33	967.00	21.33	46.346	
3,700.00	3,570.34	3,396.08	3,297.76	15.90	13.57	139.37	397.79	-420.03	1,042.96	1,020.71	22.25	46.874	
3,775.54	3,640.12	3,459.35	3,356.70	16.47	14.02	139.35	413.33	-436.99	1,084.24	1,061.28	22.95	47.238	
3,800.00	3,662.76	3,479.87	3,375.82	16.63	14.17	139.55	418.37	-442.49	1,097.53	1,074.33	23.20	47.311	
3,900.00	3,756.10	3,564.67	3,454.82	17.16	14.78	140.24	439.20	-465.21	1,150.50	1,126.35	24.15	47.644	
4,000.00	3,850.63	3,650.77	3,535.03	17.66	15.40	140.76	460.34	-488.29	1,201.18	1,176.08	25.09	47.868	
4,100.00	3,946.24	3,738.08	3,616.37	18.13	16.04	141.12	481.78	-511.69	1,249.53	1,223.50	26.03	48.007	
4,200.00	4,042.82	3,826.49	3,698.73	18.56	16.68	141.36	503.49	-535.39	1,295.53	1,268.58	26.94	48.082	
4,300.00	4,140.24	3,930.75	3,795.97	18.95	17.37	141.40	528.89	-563.11	1,339.00	1,311.13	27.87	48.048	
4,400.00	4,238.39	4,071.92	3,929.41	19.30	18.12	141.25	560.00	-597.06	1,377.57	1,348.78	28.80	47.836	
4,500.00	4,337.15	4,219.34	4,070.99	19.60	18.81	141.10	587.71	-627.30	1,410.20	1,380.54	29.66	47.548	
4,600.00	4,436.40	4,372.25	4,219.87	19.86	19.43	140.95	611.21	-652.95	1,436.56	1,406.13	30.43	47.210	
4,700.00	4,536.01	4,529.67	4,374.85	20.07	19.94	140.82	629.76	-673.19	1,456.37	1,425.28	31.10	46.836	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 4-27 - P_DRY CREEK 4-27 - PLAN #1 10-26-09 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
4,800.00	4,635.86	4,690.46	4,534.47	20.24	20.35	140.70	642.75	-687.36	1,469.43	1,437.79	31.65	46.433	
4,901.16	4,737.00	4,855.21	4,698.87	20.36	20.64	-6.45	649.75	-695.01	1,475.62	1,443.54	32.07	46.010	
5,000.00	4,835.84	4,992.20	4,835.84	20.46	20.80	-6.50	650.89	-696.25	1,476.39	1,444.02	32.38	45.600	
5,100.00	4,935.84	5,092.20	4,935.84	20.57	20.91	-6.50	650.89	-696.25	1,476.39	1,443.75	32.65	45.226	
5,200.00	5,035.84	5,192.20	5,035.84	20.67	21.02	-6.50	650.89	-696.25	1,476.39	1,443.47	32.92	44.850	
5,300.00	5,135.84	5,292.20	5,135.84	20.77	21.13	-6.50	650.89	-696.25	1,476.39	1,443.20	33.20	44.476	
5,400.00	5,235.84	5,392.20	5,235.84	20.88	21.25	-6.50	650.89	-696.25	1,476.39	1,442.92	33.48	44.103	
5,500.00	5,335.84	5,492.20	5,335.84	20.99	21.36	-6.50	650.89	-696.25	1,476.39	1,442.63	33.76	43.732	
5,600.00	5,435.84	5,592.20	5,435.84	21.10	21.48	-6.50	650.89	-696.25	1,476.39	1,442.34	34.05	43.362	
5,700.00	5,535.84	5,692.20	5,535.84	21.21	21.60	-6.50	650.89	-696.25	1,476.39	1,442.05	34.34	42.994	
5,800.00	5,635.84	5,792.20	5,635.84	21.33	21.72	-6.50	650.89	-696.25	1,476.39	1,441.76	34.63	42.628	
5,900.00	5,735.84	5,892.20	5,735.84	21.44	21.85	-6.50	650.89	-696.25	1,476.39	1,441.46	34.93	42.264	
6,000.00	5,835.84	5,992.20	5,835.84	21.56	21.97	-6.50	650.89	-696.25	1,476.39	1,441.16	35.23	41.903	
6,100.00	5,935.84	6,092.20	5,935.84	21.68	22.10	-6.50	650.89	-696.25	1,476.39	1,440.85	35.54	41.544	
6,200.00	6,035.84	6,192.20	6,035.84	21.80	22.23	-6.50	650.89	-696.25	1,476.39	1,440.55	35.85	41.188	
6,300.00	6,135.84	6,292.20	6,135.84	21.92	22.36	-6.50	650.89	-696.25	1,476.39	1,440.24	36.16	40.834	
6,400.00	6,235.84	6,392.20	6,235.84	22.05	22.49	-6.50	650.89	-696.25	1,476.39	1,439.92	36.47	40.483	
6,500.00	6,335.84	6,492.20	6,335.84	22.17	22.62	-6.50	650.89	-696.25	1,476.39	1,439.61	36.79	40.135	
6,600.00	6,435.84	6,592.20	6,435.84	22.30	22.75	-6.50	650.89	-696.25	1,476.39	1,439.29	37.10	39.790	
6,700.00	6,535.84	6,692.20	6,535.84	22.43	22.89	-6.50	650.89	-696.25	1,476.39	1,438.97	37.43	39.448	
6,800.00	6,635.84	6,792.20	6,635.84	22.56	23.03	-6.50	650.89	-696.25	1,476.39	1,438.64	37.75	39.109	
6,900.00	6,735.84	6,892.20	6,735.84	22.69	23.16	-6.50	650.89	-696.25	1,476.39	1,438.31	38.08	38.774	
7,000.00	6,835.84	6,992.20	6,835.84	22.83	23.30	-6.50	650.89	-696.25	1,476.39	1,437.99	38.41	38.441	
7,100.00	6,935.84	7,092.20	6,935.84	22.96	23.45	-6.50	650.89	-696.25	1,476.39	1,437.65	38.74	38.112	
7,200.00	7,035.84	7,192.20	7,035.84	23.10	23.59	-6.50	650.89	-696.25	1,476.39	1,437.32	39.07	37.786	
7,300.00	7,135.84	7,292.20	7,135.84	23.24	23.73	-6.50	650.89	-696.25	1,476.39	1,436.98	39.41	37.464	
7,400.00	7,235.84	7,392.20	7,235.84	23.37	23.88	-6.50	650.89	-696.25	1,476.39	1,436.64	39.75	37.145	
7,500.00	7,335.84	7,492.20	7,335.84	23.51	24.02	-6.50	650.89	-696.25	1,476.39	1,436.30	40.09	36.829	
7,600.00	7,435.84	7,592.20	7,435.84	23.66	24.17	-6.50	650.89	-696.25	1,476.39	1,435.96	40.43	36.517	
7,700.00	7,535.84	7,692.20	7,535.84	23.80	24.32	-6.50	650.89	-696.25	1,476.39	1,435.62	40.78	36.208	
7,800.00	7,635.84	7,792.20	7,635.84	23.94	24.47	-6.50	650.89	-696.25	1,476.39	1,435.27	41.12	35.902	
7,900.00	7,735.84	7,892.20	7,735.84	24.09	24.62	-6.50	650.89	-696.25	1,476.39	1,434.92	41.47	35.600	
8,000.00	7,835.84	7,992.20	7,835.84	24.24	24.77	-6.50	650.89	-696.25	1,476.39	1,434.57	41.82	35.302	
8,043.16	7,879.00	8,035.36	7,879.00	24.30	24.84	-6.50	650.89	-696.25	1,476.39	1,434.42	41.97	35.174	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 10-26-09 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)	Semi Major Axis 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	89.59	0.34	47.61	47.61				
100.00	100.00	100.00	100.00	0.10	0.10	89.59	0.34	47.61	47.61	47.42	0.19	249.189	
200.00	200.00	200.00	200.00	0.32	0.32	89.59	0.34	47.61	47.61	46.97	0.64	74.320	
300.00	300.00	300.00	300.00	0.55	0.55	89.59	0.34	47.61	47.61	46.52	1.09	43.672	
400.00	400.00	400.00	400.00	0.77	0.77	89.59	0.34	47.61	47.61	46.07	1.54	30.921	
500.00	500.00	500.00	500.00	0.99	0.99	89.59	0.34	47.61	47.61	45.62	1.99	23.933	
600.00	600.00	600.00	600.00	1.22	1.22	89.59	0.34	47.61	47.61	45.17	2.44	19.522	
700.00	700.00	700.00	700.00	1.44	1.44	89.59	0.34	47.61	47.61	44.72	2.89	16.483	
800.00	800.00	800.00	800.00	1.67	1.67	89.59	0.34	47.61	47.61	44.27	3.34	14.263	
900.00	900.00	900.00	900.00	1.89	1.89	89.59	0.34	47.61	47.61	43.82	3.79	12.570	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.59	0.34	47.61	47.61	43.37	4.24	11.237	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.59	0.34	47.61	47.61	42.92	4.69	10.159	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.59	0.34	47.61	47.61	42.47	5.14	9.270	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.59	0.34	47.61	47.61	42.25	5.36	8.881 CC, ES	
1,300.00	1,300.00	1,299.44	1,299.44	2.78	2.78	-123.42	0.03	47.90	48.14	42.58	5.56	8.662 SF	
1,400.00	1,399.93	1,398.19	1,398.12	2.96	2.96	-123.74	-2.47	50.21	52.38	46.47	5.91	8.868	
1,500.00	1,499.68	1,496.54	1,496.24	3.14	3.14	-124.23	-7.45	54.80	60.85	54.59	6.27	9.708	
1,600.00	1,599.13	1,594.23	1,593.40	3.34	3.35	-124.72	-14.83	61.62	73.53	66.88	6.65	11.058	
1,700.00	1,698.15	1,691.01	1,689.27	3.57	3.57	-125.12	-24.55	70.59	90.36	83.30	7.06	12.796	
1,800.00	1,796.63	1,786.65	1,783.52	3.83	3.82	-125.38	-36.48	81.61	111.29	103.78	7.52	14.806	
1,900.00	1,894.44	1,880.92	1,875.83	4.14	4.11	-125.51	-50.49	94.56	136.24	128.22	8.02	16.978	
2,000.00	1,991.46	1,973.62	1,965.95	4.50	4.44	-125.53	-66.44	109.29	165.12	156.52	8.60	19.210	
2,100.00	2,087.58	2,064.57	2,053.64	4.91	4.81	-125.45	-84.16	125.65	197.82	188.59	9.24	21.416	
2,200.00	2,182.68	2,153.60	2,138.69	5.39	5.22	-125.27	-103.48	143.50	234.24	224.29	9.95	23.532	
2,300.00	2,276.65	2,240.58	2,220.96	5.94	5.68	-125.02	-124.22	162.66	274.25	263.50	10.75	25.513	
2,375.62	2,346.88	2,304.91	2,281.23	6.39	6.05	-124.79	-140.73	177.91	306.82	295.42	11.40	26.917	
2,400.00	2,369.40	2,325.41	2,300.33	6.55	6.18	-124.89	-146.20	182.96	317.68	306.05	11.63	27.310	
2,500.00	2,461.78	2,408.60	2,377.27	7.20	6.71	-125.01	-169.43	204.42	363.19	350.58	12.61	28.803	
2,600.00	2,554.16	2,490.31	2,451.92	7.88	7.30	-124.81	-193.83	226.96	410.21	396.57	13.64	30.066	
2,700.00	2,646.54	2,570.45	2,524.19	8.57	7.92	-124.39	-219.28	250.46	458.72	443.99	14.73	31.144	
2,800.00	2,738.92	2,649.98	2,594.93	9.27	8.58	-123.82	-245.97	275.11	508.69	492.84	15.85	32.093	
2,900.00	2,831.30	2,736.12	2,671.14	9.99	9.33	-123.22	-275.47	302.36	559.26	542.21	17.05	32.797	
3,000.00	2,923.68	2,822.26	2,747.34	10.71	10.09	-122.72	-304.97	329.61	609.86	591.60	18.27	33.384	
3,100.00	3,016.06	2,908.40	2,823.55	11.44	10.86	-122.30	-334.47	356.85	660.50	641.00	19.50	33.875	
3,200.00	3,108.44	2,994.54	2,899.75	12.17	11.65	-121.94	-363.97	384.10	711.16	690.42	20.74	34.289	
3,300.00	3,200.82	3,080.67	2,975.96	12.91	12.44	-121.62	-393.46	411.35	761.83	739.84	21.99	34.641	
3,400.00	3,293.20	3,166.81	3,052.16	13.65	13.24	-121.35	-422.96	438.59	812.52	789.27	23.25	34.946	
3,500.00	3,385.58	3,252.95	3,128.37	14.40	14.04	-121.11	-452.46	465.84	863.23	838.71	24.52	35.210	
3,600.00	3,477.96	3,339.09	3,204.57	15.15	14.85	-120.89	-481.96	493.09	913.94	888.15	25.79	35.442	
3,700.00	3,570.34	3,425.23	3,280.78	15.90	15.66	-120.70	-511.46	520.33	964.66	937.60	27.06	35.646	
3,775.54	3,640.12	3,490.30	3,338.35	16.47	16.27	-120.56	-533.74	540.91	1,002.98	974.96	28.03	35.785	
3,800.00	3,662.76	3,511.39	3,357.01	16.63	16.47	-120.76	-540.96	547.59	1,015.35	986.99	28.35	35.809	
3,900.00	3,756.10	3,607.53	3,442.19	17.16	17.33	-121.42	-573.72	577.84	1,064.80	1,035.18	29.63	35.940	
4,000.00	3,850.63	3,725.24	3,548.13	17.66	18.16	-121.89	-611.38	612.63	1,110.87	1,080.01	30.87	35.988	
4,100.00	3,946.24	3,847.47	3,660.27	18.13	18.98	-122.29	-647.08	645.60	1,152.86	1,120.80	32.06	35.960	
4,200.00	4,042.82	3,974.02	3,778.45	18.56	19.75	-122.62	-680.30	676.29	1,190.56	1,157.37	33.18	35.877	
4,300.00	4,140.24	4,104.61	3,902.38	18.95	20.47	-122.89	-710.53	704.21	1,223.75	1,189.52	34.23	35.753	
4,400.00	4,238.39	4,238.89	4,031.63	19.30	21.12	-123.10	-737.26	728.89	1,252.24	1,217.07	35.16	35.611	
4,500.00	4,337.15	4,376.42	4,165.61	19.60	21.69	-123.27	-759.99	749.89	1,275.86	1,239.87	35.99	35.446	
4,600.00	4,436.40	4,516.65	4,303.61	19.86	22.18	-123.39	-778.27	766.78	1,294.46	1,257.76	36.71	35.266	
4,700.00	4,536.01	4,659.01	4,444.77	20.07	22.56	-123.47	-791.74	779.21	1,307.92	1,270.63	37.29	35.075	
4,800.00	4,635.86	4,802.83	4,588.12	20.24	22.85	-123.52	-800.09	786.93	1,316.14	1,278.39	37.75	34.863	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 10-26-09 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
4,901.16	4,737.00	4,949.10	4,734.32	20.36	23.04	89.44	-803.16	789.77	1,319.06	1,280.97	38.09	34.628	
5,000.00	4,835.84	5,050.63	4,835.84	20.46	23.13	89.44	-803.17	789.77	1,319.07	1,280.76	38.31	34.428	
5,100.00	4,935.84	5,150.63	4,935.84	20.57	23.23	89.44	-803.17	789.77	1,319.07	1,280.53	38.53	34.231	
5,200.00	5,035.84	5,250.63	5,035.84	20.67	23.32	89.44	-803.17	789.77	1,319.07	1,280.31	38.76	34.032	
5,300.00	5,135.84	5,350.63	5,135.84	20.77	23.42	89.44	-803.17	789.77	1,319.07	1,280.08	38.99	33.833	
5,400.00	5,235.84	5,450.63	5,235.84	20.88	23.52	89.44	-803.17	789.77	1,319.07	1,279.85	39.22	33.632	
5,500.00	5,335.84	5,550.63	5,335.84	20.99	23.62	89.44	-803.17	789.77	1,319.07	1,279.61	39.46	33.430	
5,600.00	5,435.84	5,650.63	5,435.84	21.10	23.72	89.44	-803.17	789.77	1,319.07	1,279.37	39.70	33.228	
5,700.00	5,535.84	5,750.63	5,535.84	21.21	23.82	89.44	-803.17	789.77	1,319.07	1,279.13	39.94	33.025	
5,800.00	5,635.84	5,850.63	5,635.84	21.33	23.93	89.44	-803.17	789.77	1,319.07	1,278.88	40.19	32.821	
5,900.00	5,735.84	5,950.63	5,735.84	21.44	24.03	89.44	-803.17	789.77	1,319.07	1,278.63	40.44	32.618	
6,000.00	5,835.84	6,050.63	5,835.84	21.56	24.14	89.44	-803.17	789.77	1,319.07	1,278.37	40.70	32.413	
6,100.00	5,935.84	6,150.63	5,935.84	21.68	24.25	89.44	-803.17	789.77	1,319.07	1,278.12	40.95	32.209	
6,200.00	6,035.84	6,250.63	6,035.84	21.80	24.37	89.44	-803.17	789.77	1,319.07	1,277.85	41.21	32.005	
6,300.00	6,135.84	6,350.63	6,135.84	21.92	24.48	89.44	-803.17	789.77	1,319.07	1,277.59	41.48	31.800	
6,400.00	6,235.84	6,450.63	6,235.84	22.05	24.59	89.44	-803.17	789.77	1,319.07	1,277.32	41.75	31.596	
6,500.00	6,335.84	6,550.63	6,335.84	22.17	24.71	89.44	-803.17	789.77	1,319.07	1,277.05	42.02	31.392	
6,600.00	6,435.84	6,650.63	6,435.84	22.30	24.83	89.44	-803.17	789.77	1,319.07	1,276.78	42.29	31.188	
6,700.00	6,535.84	6,750.63	6,535.84	22.43	24.95	89.44	-803.17	789.77	1,319.07	1,276.50	42.57	30.985	
6,800.00	6,635.84	6,850.63	6,635.84	22.56	25.07	89.44	-803.17	789.77	1,319.07	1,276.22	42.85	30.782	
6,900.00	6,735.84	6,950.63	6,735.84	22.69	25.19	89.44	-803.17	789.77	1,319.07	1,275.93	43.13	30.580	
7,000.00	6,835.84	7,050.63	6,835.84	22.83	25.31	89.44	-803.17	789.77	1,319.07	1,275.65	43.42	30.379	
7,100.00	6,935.84	7,150.63	6,935.84	22.96	25.44	89.44	-803.17	789.77	1,319.07	1,275.36	43.71	30.178	
7,200.00	7,035.84	7,250.63	7,035.84	23.10	25.57	89.44	-803.17	789.77	1,319.07	1,275.07	44.00	29.978	
7,300.00	7,135.84	7,350.63	7,135.84	23.24	25.69	89.44	-803.17	789.77	1,319.07	1,274.77	44.30	29.778	
7,400.00	7,235.84	7,450.63	7,235.84	23.37	25.82	89.44	-803.17	789.77	1,319.07	1,274.48	44.59	29.580	
7,500.00	7,335.84	7,550.63	7,335.84	23.51	25.95	89.44	-803.17	789.77	1,319.07	1,274.18	44.89	29.382	
7,600.00	7,435.84	7,650.63	7,435.84	23.66	26.08	89.44	-803.17	789.77	1,319.07	1,273.87	45.20	29.186	
7,700.00	7,535.84	7,750.63	7,535.84	23.80	26.22	89.44	-803.17	789.77	1,319.07	1,273.57	45.50	28.990	
7,800.00	7,635.84	7,850.63	7,635.84	23.94	26.35	89.44	-803.17	789.77	1,319.07	1,273.26	45.81	28.796	
7,900.00	7,735.84	7,950.63	7,735.84	24.09	26.49	89.44	-803.17	789.77	1,319.07	1,272.95	46.12	28.603	
8,000.00	7,835.84	8,050.63	7,835.84	24.24	26.62	89.44	-803.17	789.77	1,319.07	1,272.64	46.43	28.411	
8,043.16	7,879.00	8,093.79	7,879.00	24.30	26.68	89.44	-803.17	789.77	1,319.07	1,272.50	46.56	28.328	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 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						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	-96.66	-4.64	-39.74	40.01				
100.00	100.00	100.00	100.00	0.10	1.70	-96.66	-4.64	-39.74	40.01	38.21	1.80	22.281	
200.00	200.00	200.00	200.00	0.32	5.70	-96.66	-4.64	-39.74	40.01	33.98	6.02	6.645	
300.00	300.00	300.00	300.00	0.55	9.70	-96.66	-4.64	-39.74	40.01	29.76	10.25	3.905	
400.00	400.00	400.00	400.00	0.77	13.70	-96.66	-4.64	-39.74	40.01	25.54	14.47	2.765	
500.00	500.00	500.00	500.00	0.99	17.70	-96.66	-4.64	-39.74	40.01	21.31	18.69	2.140	
600.00	600.00	600.00	600.00	1.22	21.70	-96.66	-4.64	-39.74	40.01	17.09	22.92	1.745	
700.00	700.00	700.00	700.00	1.44	25.70	-96.66	-4.64	-39.74	40.01	12.86	27.14	1.474	Level 3
800.00	800.00	800.00	800.00	1.67	29.70	-96.66	-4.64	-39.74	40.01	8.64	31.37	1.275	Level 3
900.00	900.00	900.00	900.00	1.89	33.70	-96.66	-4.64	-39.74	40.01	4.41	35.59	1.124	Level 2
1,000.00	1,000.00	1,000.00	1,000.00	2.12	37.70	-96.66	-4.64	-39.74	40.01	0.19	39.82	1.005	Level 2
1,100.00	1,100.00	1,100.00	1,100.00	2.34	41.70	-96.66	-4.64	-39.74	40.01	-4.04	44.04	0.908	Level 1
1,200.00	1,200.00	1,200.00	1,200.00	2.57	45.70	-96.66	-4.64	-39.74	40.01	-8.26	48.27	0.829	Level 1
1,250.00	1,250.00	1,250.00	1,250.00	2.68	47.70	-96.66	-4.64	-39.74	40.01	-10.38	50.38	0.794	Level 1
1,300.00	1,300.00	1,300.00	1,300.00	2.78	49.70	50.86	-4.64	-39.74	39.73	-12.75	52.48	0.757	Level 1
1,400.00	1,399.93	1,399.93	1,399.93	2.96	53.70	55.02	-4.64	-39.74	37.62	-19.00	56.63	0.664	Level 1
1,500.00	1,499.68	1,499.68	1,499.68	3.14	57.69	64.71	-4.64	-39.74	34.10	-26.68	60.78	0.561	Level 1
1,600.00	1,599.13	1,599.13	1,599.13	3.34	61.67	82.37	-4.64	-39.74	31.09	-33.91	65.00	0.478	Level 1
1,632.62	1,631.48	1,631.48	1,631.48	3.42	62.96	90.00	-4.64	-39.74	30.81	-35.56	66.38	0.464	Level 1, CC, SF
1,700.00	1,698.15	1,698.15	1,698.15	3.57	65.63	107.37	-4.64	-39.74	32.32	-36.81	69.13	0.468	Level 1, ES
1,800.00	1,796.63	1,796.63	1,796.63	3.83	69.57	130.83	-4.64	-39.74	41.05	-31.77	72.82	0.564	Level 1
1,900.00	1,894.44	1,894.44	1,894.44	4.14	73.48	146.57	-4.64	-39.74	56.96	-19.21	76.18	0.748	Level 1
2,000.00	1,991.46	1,991.46	1,991.46	4.50	77.36	156.13	-4.64	-39.74	78.41	-0.96	79.37	0.988	Level 1
2,100.00	2,087.58	2,087.58	2,087.58	4.91	81.20	162.08	-4.64	-39.74	104.32	21.90	82.42	1.266	Level 3
2,200.00	2,182.68	2,182.68	2,182.68	5.39	85.01	165.99	-4.64	-39.74	134.15	48.85	85.30	1.573	
2,300.00	2,276.65	2,276.65	2,276.65	5.94	88.77	168.67	-4.64	-39.74	167.62	79.64	87.98	1.905	
2,375.62	2,346.88	2,346.88	2,346.88	6.39	91.58	170.18	-4.64	-39.74	195.24	105.37	89.87	2.172	
2,400.00	2,369.40	2,369.40	2,369.40	6.55	92.48	170.63	-4.64	-39.74	204.46	113.71	90.75	2.253	
2,500.00	2,461.78	2,461.78	2,461.78	7.20	96.17	172.10	-4.64	-39.74	242.38	147.99	94.39	2.568	
2,600.00	2,554.16	2,554.16	2,554.16	7.88	99.87	173.18	-4.64	-39.74	280.40	182.34	98.06	2.859	
2,700.00	2,646.54	2,646.54	2,646.54	8.57	103.56	173.99	-4.64	-39.74	318.49	216.74	101.75	3.130	
2,800.00	2,738.92	2,738.92	2,738.92	9.27	107.26	174.64	-4.64	-39.74	356.61	251.17	105.44	3.382	
2,900.00	2,831.30	2,831.30	2,831.30	9.99	110.95	175.16	-4.64	-39.74	394.77	285.62	109.15	3.617	
3,000.00	2,923.68	2,923.68	2,923.68	10.71	114.65	175.58	-4.64	-39.74	432.95	320.09	112.87	3.836	
3,100.00	3,016.06	3,016.06	3,016.06	11.44	118.34	175.94	-4.64	-39.74	471.15	354.56	116.59	4.041	
3,200.00	3,108.44	3,108.44	3,108.44	12.17	122.04	176.25	-4.64	-39.74	509.37	389.05	120.32	4.234	
3,300.00	3,200.82	3,200.82	3,200.82	12.91	125.73	176.51	-4.64	-39.74	547.59	423.54	124.05	4.414	
3,400.00	3,293.20	3,293.20	3,293.20	13.65	129.43	176.74	-4.64	-39.74	585.82	458.04	127.78	4.585	
3,500.00	3,385.58	3,385.58	3,385.58	14.40	133.12	176.94	-4.64	-39.74	624.06	492.54	131.52	4.745	
3,600.00	3,477.96	3,477.96	3,477.96	15.15	136.82	177.11	-4.64	-39.74	662.30	527.05	135.26	4.897	
3,700.00	3,570.34	3,570.34	3,570.34	15.90	140.51	177.27	-4.64	-39.74	700.55	561.55	139.00	5.040	
3,775.54	3,640.12	3,640.12	3,640.12	16.47	143.30	177.38	-4.64	-39.74	729.45	587.62	141.83	5.143	
3,800.00	3,662.76	3,662.76	3,662.76	16.63	144.21	177.42	-4.64	-39.74	738.71	595.51	143.20	5.159	
3,900.00	3,756.10	3,756.10	3,756.10	17.16	147.94	177.57	-4.64	-39.74	774.55	625.77	148.78	5.206	
4,000.00	3,850.63	3,850.63	3,850.63	17.66	151.73	177.70	-4.64	-39.74	807.12	652.81	154.31	5.231	
4,100.00	3,946.24	3,946.24	3,946.24	18.13	155.55	177.80	-4.64	-39.74	836.37	676.55	159.82	5.233	
4,200.00	4,042.82	4,042.82	4,042.82	18.56	159.41	177.89	-4.64	-39.74	862.28	697.04	165.24	5.218	
4,300.00	4,140.24	4,140.24	4,140.24	18.95	163.31	177.96	-4.64	-39.74	884.80	714.25	170.55	5.188	
4,400.00	4,238.39	4,238.39	4,238.39	19.30	167.24	178.02	-4.64	-39.74	903.90	728.19	175.72	5.144	
4,500.00	4,337.15	4,337.15	4,337.15	19.60	171.19	178.06	-4.64	-39.74	919.58	738.84	180.73	5.088	
4,600.00	4,436.40	4,436.40	4,436.40	19.86	175.16	178.09	-4.64	-39.74	931.80	746.22	185.57	5.021	
4,700.00	4,536.01	4,536.01	4,536.01	20.07	179.14	178.12	-4.64	-39.74	940.55	750.33	190.22	4.945	

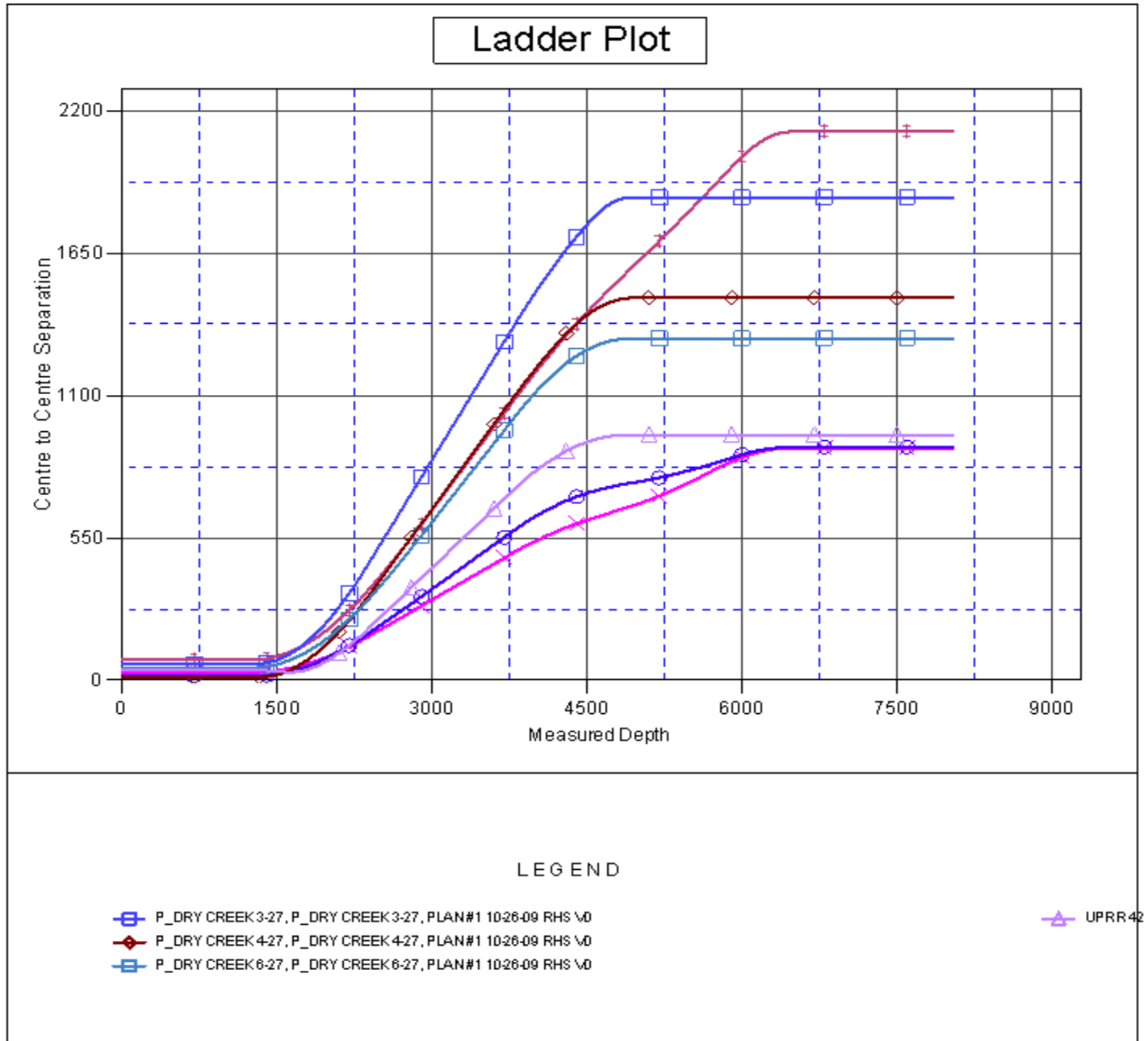
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

WELD_DRY CREEK PAD 7 - UPRR 42 PAN AM 'AM-TRUE #1 EXISTING - UPRR 42 PAN AM 'AM-TR											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	
4,800.00	4,635.86	4,635.86	4,635.86	20.24	183.13	178.13	-4.64	-39.74	945.82	751.17	194.65	4.859	
4,901.16	4,737.00	4,737.00	4,737.00	20.36	187.18	31.10	-4.64	-39.74	947.60	748.71	198.89	4.764	
5,000.00	4,835.84	4,835.84	4,835.84	20.46	191.13	31.10	-4.64	-39.74	947.60	744.59	203.01	4.668	
5,100.00	4,935.84	4,935.84	4,935.84	20.57	195.13	31.10	-4.64	-39.74	947.60	740.42	207.19	4.574	
5,200.00	5,035.84	5,035.84	5,035.84	20.67	199.13	31.10	-4.64	-39.74	947.60	736.24	211.36	4.483	
5,300.00	5,135.84	5,135.84	5,135.84	20.77	203.13	31.10	-4.64	-39.74	947.60	732.07	215.54	4.396	
5,400.00	5,235.84	5,235.84	5,235.84	20.88	207.13	31.10	-4.64	-39.74	947.60	727.89	219.71	4.313	
5,500.00	5,335.84	5,335.84	5,335.84	20.99	211.13	31.10	-4.64	-39.74	947.60	723.71	223.89	4.232	
5,600.00	5,435.84	5,435.84	5,435.84	21.10	215.13	31.10	-4.64	-39.74	947.60	719.53	228.07	4.155	
5,700.00	5,535.84	5,535.84	5,535.84	21.21	219.13	31.10	-4.64	-39.74	947.60	715.35	232.25	4.080	
5,800.00	5,635.84	5,635.84	5,635.84	21.33	223.13	31.10	-4.64	-39.74	947.60	711.17	236.44	4.008	
5,900.00	5,735.84	5,735.84	5,735.84	21.44	227.13	31.10	-4.64	-39.74	947.60	706.98	240.62	3.938	
6,000.00	5,835.84	5,835.84	5,835.84	21.56	231.13	31.10	-4.64	-39.74	947.60	702.80	244.81	3.871	
6,100.00	5,935.84	5,935.84	5,935.84	21.68	235.13	31.10	-4.64	-39.74	947.60	698.61	248.99	3.806	
6,200.00	6,035.84	6,035.84	6,035.84	21.80	239.13	31.10	-4.64	-39.74	947.60	694.42	253.18	3.743	
6,300.00	6,135.84	6,135.84	6,135.84	21.92	243.13	31.10	-4.64	-39.74	947.60	690.23	257.37	3.682	
6,400.00	6,235.84	6,235.84	6,235.84	22.05	247.13	31.10	-4.64	-39.74	947.60	686.04	261.56	3.623	
6,500.00	6,335.84	6,335.84	6,335.84	22.17	251.13	31.10	-4.64	-39.74	947.60	681.85	265.75	3.566	
6,600.00	6,435.84	6,435.84	6,435.84	22.30	255.13	31.10	-4.64	-39.74	947.60	677.66	269.94	3.510	
6,700.00	6,535.84	6,535.84	6,535.84	22.43	259.13	31.10	-4.64	-39.74	947.60	673.47	274.14	3.457	
6,800.00	6,635.84	6,635.84	6,635.84	22.56	263.13	31.10	-4.64	-39.74	947.60	669.27	278.33	3.405	
6,900.00	6,735.84	6,735.84	6,735.84	22.69	267.13	31.10	-4.64	-39.74	947.60	665.08	282.52	3.354	
7,000.00	6,835.84	6,835.84	6,835.84	22.83	271.13	31.10	-4.64	-39.74	947.60	660.88	286.72	3.305	
7,100.00	6,935.84	6,935.84	6,935.84	22.96	275.13	31.10	-4.64	-39.74	947.60	656.69	290.92	3.257	
7,200.00	7,035.84	7,035.84	7,035.84	23.10	279.13	31.10	-4.64	-39.74	947.60	652.49	295.11	3.211	
7,300.00	7,135.84	7,135.84	7,135.84	23.24	283.13	31.10	-4.64	-39.74	947.60	648.29	299.31	3.166	
7,400.00	7,235.84	7,235.84	7,235.84	23.37	287.13	31.10	-4.64	-39.74	947.60	644.10	303.51	3.122	
7,500.00	7,335.84	7,335.84	7,335.84	23.51	291.13	31.10	-4.64	-39.74	947.60	639.90	307.71	3.080	
7,600.00	7,435.84	7,435.84	7,435.84	23.66	295.13	31.10	-4.64	-39.74	947.60	635.70	311.91	3.038	
7,700.00	7,535.84	7,535.84	7,535.84	23.80	299.13	31.10	-4.64	-39.74	947.60	631.50	316.11	2.998	
7,800.00	7,635.84	7,635.84	7,635.84	23.94	303.13	31.10	-4.64	-39.74	947.60	627.30	320.31	2.958	
7,900.00	7,735.84	7,735.84	7,735.84	24.09	307.13	31.10	-4.64	-39.74	947.60	623.09	324.51	2.920	
8,000.00	7,835.84	7,835.84	7,835.84	24.24	311.13	31.10	-4.64	-39.74	947.60	618.89	328.71	2.883	
8,043.16	7,879.00	7,879.00	7,879.00	24.30	312.86	31.10	-4.64	-39.74	947.60	617.08	330.52	2.867	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

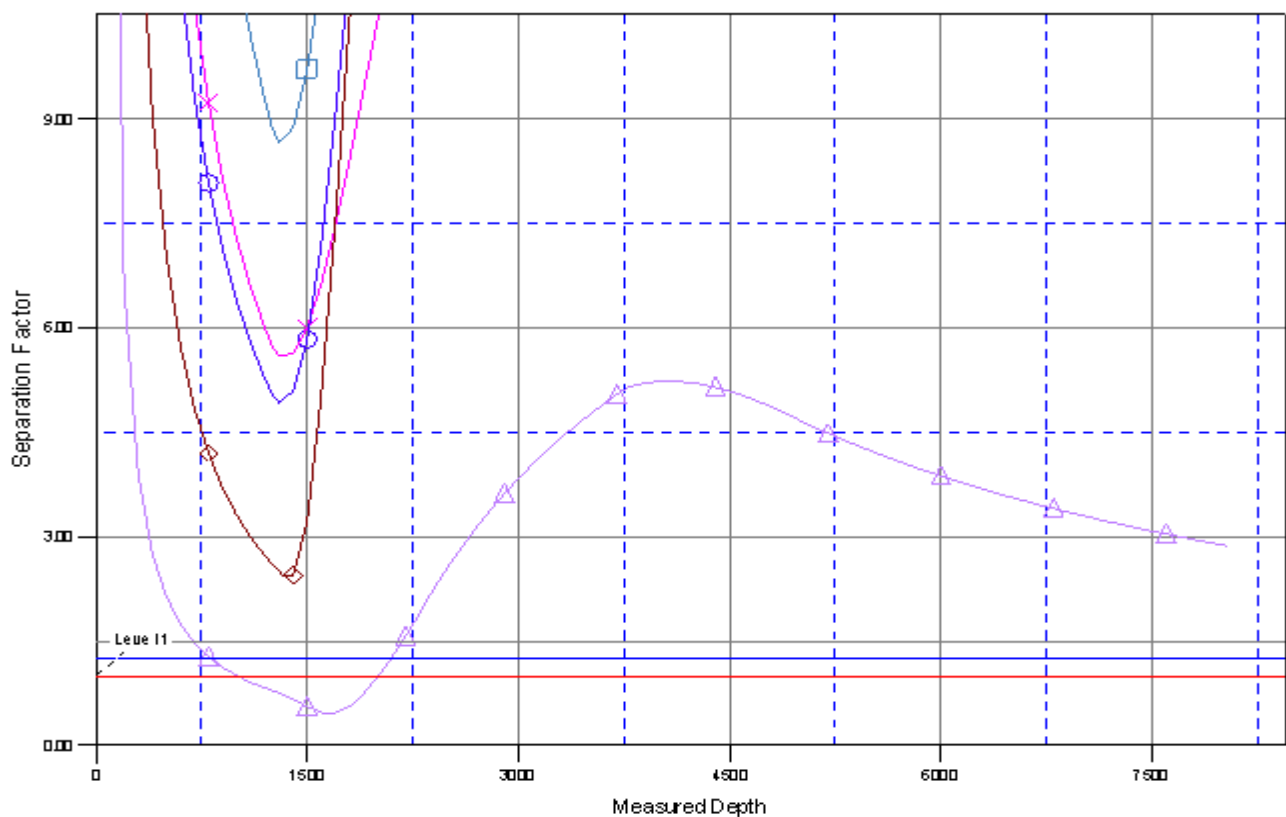
Reference Depths are relative to WELL @ 5023.00ft (Original Well Elev) Coordinates are relative to: P_DRY CREEK 5-27
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.40°



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 5-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 5-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 5-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5023.00ft (Original Well Elev) Coordinates are relative to: P_DRY CREEK 5-27
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: 0.40°

Separation Factor Plot



LEGEND

-  P_DRY CREEK 3-27, P_DRY CREEK 3-27, PLAN#1 10-26-09 RHS \0
-  P_DRY CREEK 4-27, P_DRY CREEK 4-27, PLAN#1 10-26-09 RHS \0
-  P_DRY CREEK 6-27, P_DRY CREEK 6-27, PLAN#1 10-26-09 RHS \0
-  UPRR42