



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_KERR MCGEE 19-3 PAD**

**P\_KERR-MCGEE 13-3**

**P\_KERR-MCGEE 13-3**

**Plan: PLAN #1 1-15-10 RHS**

## **Standard Planning Report**

**15 January, 2010**





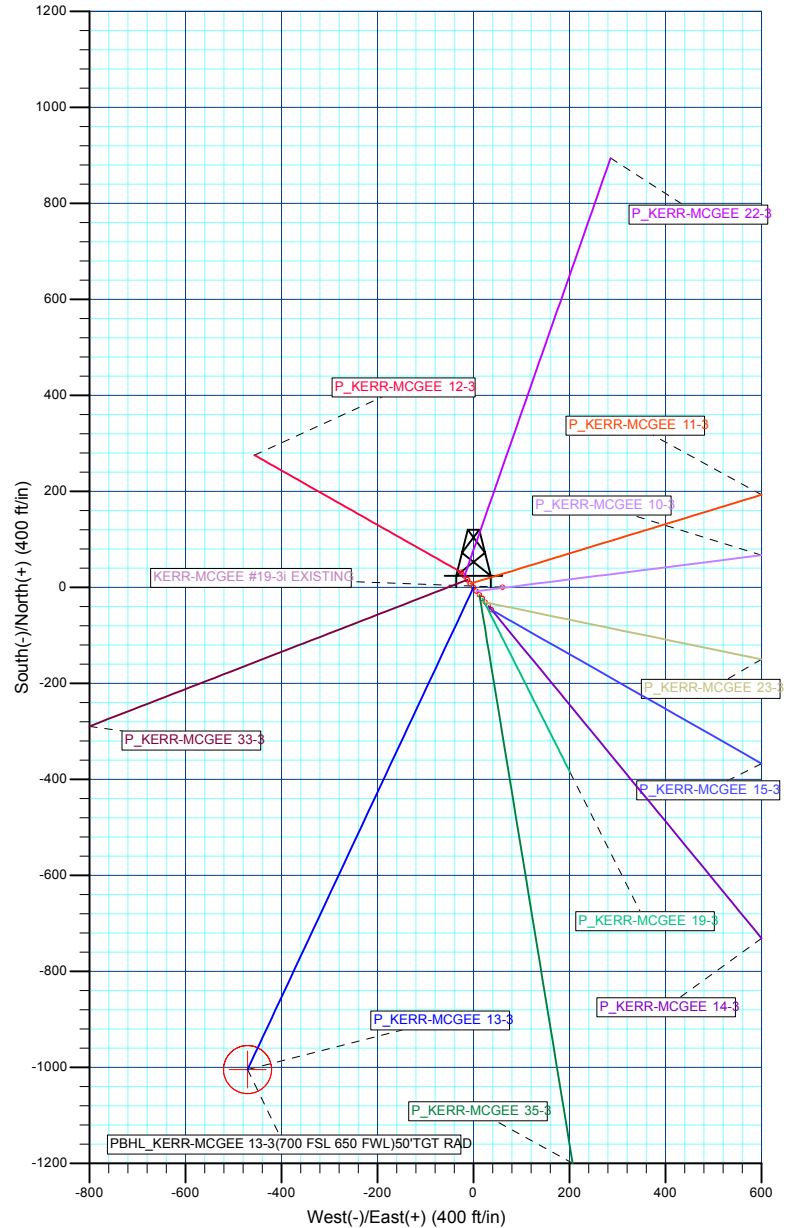
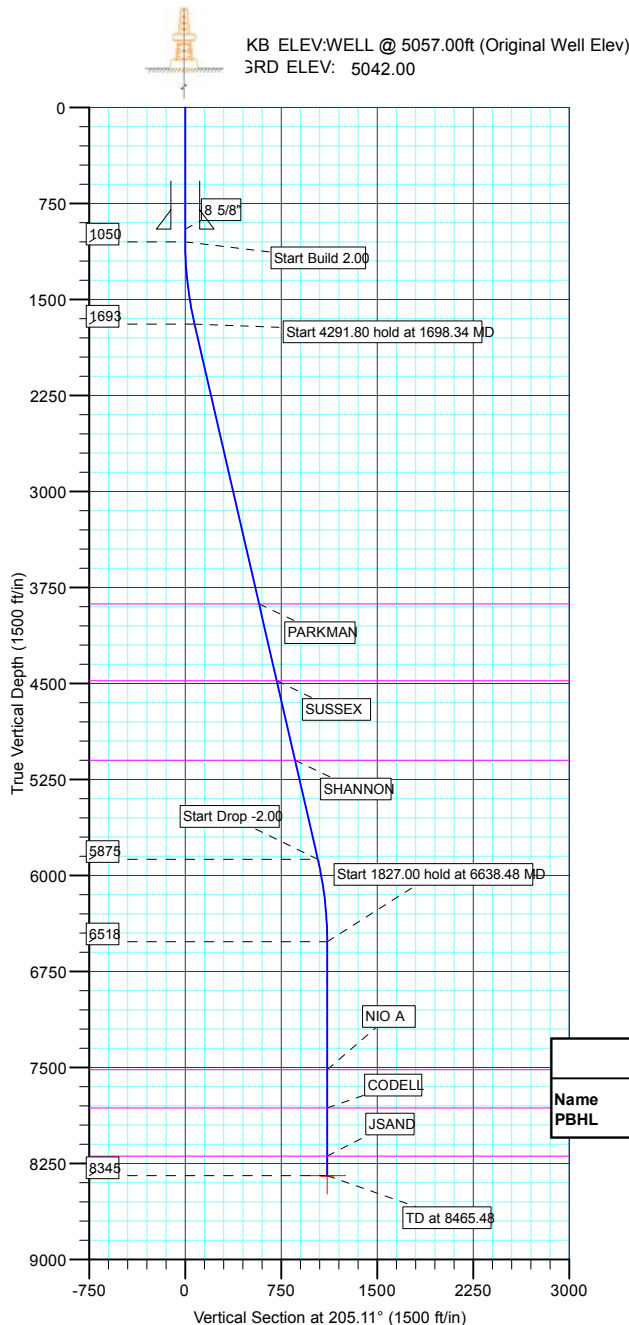
**P\_KERR-MCGEE 13-3**  
**COLORADO NORTHERN ZONE - 83**  
**SECTION 3 T1N R68W**  
**1705 FSL 1117 FWL**  
**LAT: 40° 4' 39.749 N**  
**LONG: 104° 59' 41.806 W**



WELL DETAILS: P_KERR-MCGEE 13-3						
+N/-S	+E/-W	Northing	Ground Level: Easting	5042.00 Latitude	Longitude	Slot
0.00	0.00	1271556.40	3141330.70	40° 4' 39.749 N	104° 59' 41.806 W	

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	
1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	0.00	0.00	
1698.34	12.97	205.11	1692.82	-66.15	-31.00	2.00	205.11	73.05	
5990.14	12.97	205.11	5875.18	-938.15	-439.70	0.00	0.00	1036.08	
6638.48	0.00	0.00	6518.00	-1004.29	-470.70	2.00	180.00	1109.13	
8465.48	0.00	0.00	8345.00	-1004.29	-470.70	0.00	0.00	1109.13	PBHL_KERR-MCGEE 13-3(700 FSL 650 FWL)50'TGT RAD

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3880.00	3942.75	PARKMAN
4480.00	4558.48	SUSSEX
5100.00	5194.68	SHANNON
7518.00	7638.48	NIO A
7817.00	7937.48	CODELL
8194.00	8314.48	JSAND



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8345.00	-1004.29	-470.70	1270549.45	3140865.73	40° 4' 29.824 N	104° 59' 47.861 W	Circle (Radius: 50.00)

CASING DETAILS			
TVD	MD	Name	Size
950.00	950.00	8 5/8"	8.62



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 13-3		
<b>Design:</b>	PLAN #1 1-15-10 RHS		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	WELD_KERR MCGEE 19-3 PAD, SECTION 3 T1N R68W				
<b>Site Position:</b>		<b>Northing:</b>	1,271,548.81 ft	<b>Latitude:</b>	40° 4' 39.673 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,141,336.90 ft	<b>Longitude:</b>	104° 59' 41.726 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.33 °

<b>Well</b>	P_KERR-MCGEE 13-3					
<b>Well Position</b>	<b>+N/-S</b>	7.63 ft	<b>Northing:</b>	1,271,556.40 ft	<b>Latitude:</b>	40° 4' 39.749 N
	<b>+E/-W</b>	-6.16 ft	<b>Easting:</b>	3,141,330.70 ft	<b>Longitude:</b>	104° 59' 41.806 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,042.00 ft

<b>Wellbore</b>	P_KERR-MCGEE 13-3				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/15/2010	9.15	66.80	53,083

<b>Design</b>	PLAN #1 1-15-10 RHS			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	205.11

<b>Plan Sections</b>										
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	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,698.34	12.97	205.11	1,692.82	-66.15	-31.00	2.00	2.00	0.00	205.11	
5,990.14	12.97	205.11	5,875.18	-938.15	-439.70	0.00	0.00	0.00	0.00	
6,638.48	0.00	0.00	6,518.00	-1,004.29	-470.70	2.00	-2.00	0.00	180.00	
8,465.48	0.00	0.00	8,345.00	-1,004.29	-470.70	0.00	0.00	0.00	0.00	PBHL_KERR-MCG

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 13-3		
<b>Design:</b>	PLAN #1 1-15-10 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)
<b>Start Build 2.00</b>									
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	1.00	205.11	1,100.00	-0.40	-0.19	0.44	2.00	2.00	0.00
1,200.00	3.00	205.11	1,199.93	-3.55	-1.67	3.93	2.00	2.00	0.00
1,300.00	5.00	205.11	1,299.68	-9.87	-4.63	10.90	2.00	2.00	0.00
1,400.00	7.00	205.11	1,399.13	-19.34	-9.06	21.35	2.00	2.00	0.00
1,500.00	9.00	205.11	1,498.15	-31.94	-14.97	35.27	2.00	2.00	0.00
1,600.00	11.00	205.11	1,596.63	-47.66	-22.34	52.63	2.00	2.00	0.00
<b>Start 4291.80 hold at 1698.34 MD</b>									
1,698.34	12.97	205.11	1,692.82	-66.15	-31.00	73.05	2.00	2.00	0.00
1,700.00	12.97	205.11	1,694.44	-66.48	-31.16	73.42	0.00	0.00	0.00
1,800.00	12.97	205.11	1,791.89	-86.80	-40.68	95.86	0.00	0.00	0.00
1,900.00	12.97	205.11	1,889.34	-107.12	-50.21	118.30	0.00	0.00	0.00
2,000.00	12.97	205.11	1,986.79	-127.44	-59.73	140.74	0.00	0.00	0.00
2,100.00	12.97	205.11	2,084.24	-147.76	-69.25	163.18	0.00	0.00	0.00
2,200.00	12.97	205.11	2,181.69	-168.07	-78.77	185.62	0.00	0.00	0.00
2,300.00	12.97	205.11	2,279.14	-188.39	-88.30	208.06	0.00	0.00	0.00
2,400.00	12.97	205.11	2,376.59	-208.71	-97.82	230.49	0.00	0.00	0.00
2,500.00	12.97	205.11	2,474.04	-229.03	-107.34	252.93	0.00	0.00	0.00
2,600.00	12.97	205.11	2,571.49	-249.34	-116.86	275.37	0.00	0.00	0.00
2,700.00	12.97	205.11	2,668.94	-269.66	-126.39	297.81	0.00	0.00	0.00
2,800.00	12.97	205.11	2,766.39	-289.98	-135.91	320.25	0.00	0.00	0.00
2,900.00	12.97	205.11	2,863.84	-310.30	-145.43	342.69	0.00	0.00	0.00
3,000.00	12.97	205.11	2,961.29	-330.62	-154.96	365.13	0.00	0.00	0.00
3,100.00	12.97	205.11	3,058.74	-350.93	-164.48	387.57	0.00	0.00	0.00
3,200.00	12.97	205.11	3,156.19	-371.25	-174.00	410.00	0.00	0.00	0.00
3,300.00	12.97	205.11	3,253.64	-391.57	-183.52	432.44	0.00	0.00	0.00
3,400.00	12.97	205.11	3,351.09	-411.89	-193.05	454.88	0.00	0.00	0.00
3,500.00	12.97	205.11	3,448.54	-432.20	-202.57	477.32	0.00	0.00	0.00
3,600.00	12.97	205.11	3,545.99	-452.52	-212.09	499.76	0.00	0.00	0.00
3,700.00	12.97	205.11	3,643.44	-472.84	-221.62	522.20	0.00	0.00	0.00
3,800.00	12.97	205.11	3,740.89	-493.16	-231.14	544.64	0.00	0.00	0.00
3,900.00	12.97	205.11	3,838.34	-513.48	-240.66	567.08	0.00	0.00	0.00
<b>PARKMAN</b>									
3,942.75	12.97	205.11	3,880.00	-522.16	-244.73	576.67	0.00	0.00	0.00
4,000.00	12.97	205.11	3,935.79	-533.79	-250.18	589.51	0.00	0.00	0.00
4,100.00	12.97	205.11	4,033.24	-554.11	-259.71	611.95	0.00	0.00	0.00
4,200.00	12.97	205.11	4,130.69	-574.43	-269.23	634.39	0.00	0.00	0.00
4,300.00	12.97	205.11	4,228.14	-594.75	-278.75	656.83	0.00	0.00	0.00
4,400.00	12.97	205.11	4,325.59	-615.06	-288.27	679.27	0.00	0.00	0.00
4,500.00	12.97	205.11	4,423.04	-635.38	-297.80	701.71	0.00	0.00	0.00
<b>SUSSEX</b>									
4,558.45	12.97	205.11	4,480.00	-647.26	-303.36	714.82	0.00	0.00	0.00
4,600.00	12.97	205.11	4,520.49	-655.70	-307.32	724.15	0.00	0.00	0.00
4,700.00	12.97	205.11	4,617.94	-676.02	-316.84	746.58	0.00	0.00	0.00
4,800.00	12.97	205.11	4,715.39	-696.34	-326.37	769.02	0.00	0.00	0.00
4,900.00	12.97	205.11	4,812.84	-716.65	-335.89	791.46	0.00	0.00	0.00
5,000.00	12.97	205.11	4,910.29	-736.97	-345.41	813.90	0.00	0.00	0.00
5,100.00	12.97	205.11	5,007.74	-757.29	-354.93	836.34	0.00	0.00	0.00
<b>SHANNON</b>									
5,194.68	12.97	205.11	5,100.00	-776.52	-363.95	857.58	0.00	0.00	0.00
5,200.00	12.97	205.11	5,105.19	-777.61	-364.46	858.78	0.00	0.00	0.00
5,300.00	12.97	205.11	5,202.64	-797.92	-373.98	881.22	0.00	0.00	0.00

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 13-3		
<b>Design:</b>	PLAN #1 1-15-10 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)
5,400.00	12.97	205.11	5,300.09	-818.24	-383.50	903.66	0.00	0.00	0.00
5,500.00	12.97	205.11	5,397.54	-838.56	-393.02	926.09	0.00	0.00	0.00
5,600.00	12.97	205.11	5,494.99	-858.88	-402.55	948.53	0.00	0.00	0.00
5,700.00	12.97	205.11	5,592.44	-879.20	-412.07	970.97	0.00	0.00	0.00
5,800.00	12.97	205.11	5,689.89	-899.51	-421.59	993.41	0.00	0.00	0.00
5,900.00	12.97	205.11	5,787.34	-919.83	-431.12	1,015.85	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,990.14	12.97	205.11	5,875.18	-938.15	-439.70	1,036.08	0.00	0.00	0.00
6,000.00	12.77	205.11	5,884.79	-940.13	-440.63	1,038.27	2.00	-2.00	0.00
6,100.00	10.77	205.11	5,982.68	-958.60	-449.29	1,058.67	2.00	-2.00	0.00
6,200.00	8.77	205.11	6,081.23	-973.97	-456.49	1,075.64	2.00	-2.00	0.00
6,300.00	6.77	205.11	6,180.31	-986.21	-462.23	1,089.15	2.00	-2.00	0.00
6,400.00	4.77	205.11	6,279.79	-995.31	-466.49	1,099.21	2.00	-2.00	0.00
6,500.00	2.77	205.11	6,379.57	-1,001.26	-469.28	1,105.78	2.00	-2.00	0.00
6,600.00	0.77	205.11	6,479.52	-1,004.06	-470.59	1,108.87	2.00	-2.00	0.00
<b>Start 1827.00 hold at 6638.48 MD</b>									
6,638.48	0.00	0.00	6,518.00	-1,004.29	-470.70	1,109.13	2.00	-2.00	0.00
6,700.00	0.00	0.00	6,579.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
6,800.00	0.00	0.00	6,679.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
6,900.00	0.00	0.00	6,779.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,000.00	0.00	0.00	6,879.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,100.00	0.00	0.00	6,979.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,200.00	0.00	0.00	7,079.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,300.00	0.00	0.00	7,179.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,400.00	0.00	0.00	7,279.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,500.00	0.00	0.00	7,379.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,600.00	0.00	0.00	7,479.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
<b>NIO A</b>									
7,638.48	0.00	0.00	7,518.00	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,700.00	0.00	0.00	7,579.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,800.00	0.00	0.00	7,679.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
7,900.00	0.00	0.00	7,779.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
<b>CODELL</b>									
7,937.48	0.00	0.00	7,817.00	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
8,000.00	0.00	0.00	7,879.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
8,100.00	0.00	0.00	7,979.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
8,200.00	0.00	0.00	8,079.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
8,300.00	0.00	0.00	8,179.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
<b>JSAND</b>									
8,314.48	0.00	0.00	8,194.00	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
8,400.00	0.00	0.00	8,279.52	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00
<b>PBHL_KERR-MCGEE 13-3(700 FSL 650 FWL)50'TGT RAD</b>									
8,465.48	0.00	0.00	8,345.00	-1,004.29	-470.70	1,109.13	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 13-3		
<b>Design:</b>	PLAN #1 1-15-10 RHS		

**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_KERR-MCGEE - plan hits target center - Circle (radius 50.00)	0.00	0.00	8,345.00	-1,004.29	-470.70	1,270,549.45	3,140,865.73	40° 4' 29.824 N	104° 59' 47.861 W

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
950.00	950.00	8 5/8"	8.62	11.00

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,942.75	3,880.00	PARKMAN			
4,558.45	4,480.00	SUSSEX			
5,194.68	5,100.00	SHANNON			
7,638.48	7,518.00	NIO A			
7,937.48	7,817.00	CODELL			
8,314.48	8,194.00	JSAND			

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,050.00	1,050.00	0.00	0.00	Start Build 2.00
1,698.34	1,692.82	-66.15	-31.00	Start 4291.80 hold at 1698.34 MD
5,990.14	5,875.18	-938.15	-439.70	Start Drop -2.00
6,638.48	6,518.00	-1,004.29	-470.70	Start 1827.00 hold at 6638.48 MD
8,465.48	8,345.00	-1,004.29	-470.70	TD at 8465.48



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_KERR MCGEE 19-3 PAD  
P\_KERR-MCGEE 13-3**

**P\_KERR-MCGEE 13-3  
PLAN #1 1-15-10 RHS**

## **Anticollision Report**

**15 January, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 1-15-10 RHS		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.00 to 20,000.00ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.00ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	1/15/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,465.48	PLAN #1 1-15-10 RHS (P_KERR-MCGEE	MWD	MWD - Standard

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
WELD_KERR MCGEE 19-3 PAD						
KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3	1,050.00	1,044.00	60.45	18.46	1.440	Level 3, CC
KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3	1,300.00	1,293.68	65.93	13.55	1.259	Level 3, ES, SF
P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN	1,050.00	1,050.00	9.80	-32.13	0.234	Level 1, CC
P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN	1,100.00	1,099.90	9.87	-33.29	0.229	Level 1, ES, SF
P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN	1,050.00	1,050.00	10.28	5.82	2.305	CC
P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN	1,100.00	1,100.05	10.34	5.68	2.216	ES, SF
P_KERR-MCGEE 12-3 - P_KERR-MCGEE 12-3 - PLAN	1,050.00	1,050.00	40.66	36.20	9.113	CC, ES
P_KERR-MCGEE 12-3 - P_KERR-MCGEE 12-3 - PLAN	1,100.00	1,099.34	41.25	36.58	8.838	SF
P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN	1,050.00	1,050.00	49.73	45.26	11.145	CC, ES
P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN	1,200.00	1,197.33	51.99	46.99	10.383	SF
P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN	1,050.00	1,050.00	59.82	55.36	13.408	CC, ES
P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN	1,300.00	1,294.40	66.37	60.98	12.313	SF
P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN	1,050.00	1,050.00	29.63	25.17	6.641	CC, ES
P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN	1,200.00	1,198.42	31.84	26.83	6.361	SF
P_KERR-MCGEE 22-3 - P_KERR-MCGEE 22-3 - PLAN	1,050.00	1,050.00	30.38	25.92	6.809	CC, ES
P_KERR-MCGEE 22-3 - P_KERR-MCGEE 22-3 - PLAN	1,100.00	1,099.71	30.81	26.14	6.596	SF
P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN	1,050.00	1,050.00	39.73	35.27	8.905	CC
P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN	1,100.00	1,099.46	39.88	35.21	8.552	ES
P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN	1,200.00	1,198.17	41.43	36.40	8.238	SF
P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN	1,050.00	1,050.00	20.39	15.92	4.569	CC, ES
P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN	1,100.00	1,099.89	20.71	16.05	4.442	SF
P_KERR-MCGEE 35-3 - P_KERR-MCGEE 35-3 - PLAN	1,050.00	1,050.00	19.82	15.36	4.442	CC
P_KERR-MCGEE 35-3 - P_KERR-MCGEE 35-3 - PLAN	1,100.00	1,099.70	20.01	15.35	4.296	ES, SF

<b>Offset Design</b>	WELD_KERR MCGEE 19-3 PAD - KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3i EXISTING										<b>Offset Site Error:</b>	0.00 ft
<b>Survey Program:</b>	0-UNKNOWN										<b>Offset Well Error:</b>	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance				Warning	
		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)
0.00	0.00	0.00	0.00	0.00	0.00	89.31	0.73	60.44	60.75			
100.00	100.00	94.00	94.00	0.10	1.88	89.31	0.73	60.44	60.45	58.47	1.98	30.599
200.00	200.00	194.00	194.00	0.32	5.76	89.31	0.73	60.44	60.45	54.37	6.08	9.942
300.00	300.00	294.00	294.00	0.55	9.76	89.31	0.73	60.44	60.45	50.14	10.31	5.866
400.00	400.00	394.00	394.00	0.77	13.76	89.31	0.73	60.44	60.45	45.92	14.53	4.160

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3i EXISTING	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
500.00	500.00	494.00	494.00	0.99	17.76	89.31	0.73	60.44	60.45	41.69	18.75	3.223			
600.00	600.00	594.00	594.00	1.22	21.76	89.31	0.73	60.44	60.45	37.47	22.98	2.631			
700.00	700.00	694.00	694.00	1.44	25.76	89.31	0.73	60.44	60.45	33.24	27.20	2.222			
800.00	800.00	794.00	794.00	1.67	29.76	89.31	0.73	60.44	60.45	29.02	31.43	1.923			
900.00	900.00	894.00	894.00	1.89	33.76	89.31	0.73	60.44	60.45	24.80	35.65	1.695			
1,000.00	1,000.00	994.00	994.00	2.12	37.76	89.31	0.73	60.44	60.45	20.57	39.88	1.516			
1,050.00	1,050.00	1,044.00	1,044.00	2.23	39.76	89.31	0.73	60.44	60.45	18.46	41.99	1.440	Level 3, CC		
1,100.00	1,100.00	1,094.00	1,094.00	2.33	41.76	-116.17	0.73	60.44	60.64	16.55	44.09	1.375	Level 3		
1,200.00	1,199.93	1,193.93	1,193.93	2.50	45.76	-119.03	0.73	60.44	62.26	14.01	48.25	1.290	Level 3		
1,300.00	1,299.68	1,293.68	1,293.68	2.69	49.75	-124.27	0.73	60.44	65.93	13.55	52.38	1.259	Level 3, ES, SF		
1,400.00	1,399.13	1,393.13	1,393.13	2.90	53.73	-131.00	0.73	60.44	72.35	15.90	56.45	1.282	Level 3		
1,500.00	1,498.15	1,492.15	1,492.15	3.13	57.69	-138.18	0.73	60.44	82.18	21.78	60.40	1.361	Level 3		
1,600.00	1,596.63	1,590.63	1,590.63	3.40	61.63	-144.92	0.73	60.44	95.89	31.69	64.20	1.494	Level 3		
1,698.34	1,692.82	1,686.82	1,686.82	3.71	65.47	-150.66	0.73	60.44	113.29	45.53	67.76	1.672			
1,700.00	1,694.44	1,688.44	1,688.44	3.72	65.54	-150.76	0.73	60.44	113.62	45.79	67.83	1.675			
1,800.00	1,791.89	1,785.89	1,785.89	4.08	69.44	-155.44	0.73	60.44	133.75	61.98	71.77	1.864			
1,900.00	1,889.34	1,883.34	1,883.34	4.46	73.33	-158.89	0.73	60.44	154.52	78.78	75.74	2.040			
2,000.00	1,986.79	1,980.79	1,980.79	4.86	77.23	-161.52	0.73	60.44	175.70	95.96	79.73	2.204			
2,100.00	2,084.24	2,078.24	2,078.24	5.27	81.13	-163.58	0.73	60.44	197.15	113.41	83.74	2.354			
2,200.00	2,181.69	2,175.69	2,175.69	5.70	85.03	-165.24	0.73	60.44	218.81	131.05	87.76	2.493			
2,300.00	2,279.14	2,273.14	2,273.14	6.14	88.93	-166.60	0.73	60.44	240.61	148.82	91.79	2.621			
2,400.00	2,376.59	2,370.59	2,370.59	6.58	92.82	-167.73	0.73	60.44	262.51	166.69	95.82	2.740			
2,500.00	2,474.04	2,468.04	2,468.04	7.03	96.72	-168.69	0.73	60.44	284.50	184.64	99.86	2.849			
2,600.00	2,571.49	2,565.49	2,565.49	7.48	100.62	-169.51	0.73	60.44	306.56	202.65	103.91	2.950			
2,700.00	2,668.94	2,662.94	2,662.94	7.93	104.52	-170.22	0.73	60.44	328.66	220.71	107.95	3.044			
2,800.00	2,766.39	2,760.39	2,760.39	8.39	108.42	-170.85	0.73	60.44	350.81	238.81	112.00	3.132			
2,900.00	2,863.84	2,857.84	2,857.84	8.86	112.31	-171.39	0.73	60.44	373.00	256.94	116.05	3.214			
3,000.00	2,961.29	2,955.29	2,955.29	9.32	116.21	-171.88	0.73	60.44	395.21	275.10	120.11	3.290			
3,100.00	3,058.74	3,052.74	3,052.74	9.79	120.11	-172.32	0.73	60.44	417.44	293.28	124.16	3.362			
3,200.00	3,156.19	3,150.19	3,150.19	10.26	124.01	-172.71	0.73	60.44	439.70	311.48	128.22	3.429			
3,300.00	3,253.64	3,247.64	3,247.64	10.73	127.91	-173.06	0.73	60.44	461.98	329.69	132.28	3.492			
3,400.00	3,351.09	3,345.09	3,345.09	11.20	131.80	-173.38	0.73	60.44	484.26	347.92	136.34	3.552			
3,500.00	3,448.54	3,442.54	3,442.54	11.67	135.70	-173.67	0.73	60.44	506.57	366.17	140.40	3.608			
3,600.00	3,545.99	3,539.99	3,539.99	12.15	139.60	-173.94	0.73	60.44	528.88	384.42	144.46	3.661			
3,700.00	3,643.44	3,637.44	3,637.44	12.62	143.50	-174.19	0.73	60.44	551.21	402.68	148.53	3.711			
3,800.00	3,740.89	3,734.89	3,734.89	13.10	147.40	-174.41	0.73	60.44	573.54	420.95	152.59	3.759			
3,900.00	3,838.34	3,832.34	3,832.34	13.57	151.29	-174.62	0.73	60.44	595.88	439.23	156.65	3.804			
4,000.00	3,935.79	3,929.79	3,929.79	14.05	155.19	-174.82	0.73	60.44	618.23	457.51	160.72	3.847			
4,100.00	4,033.24	4,027.24	4,027.24	14.53	159.09	-175.00	0.73	60.44	640.58	475.80	164.78	3.887			
4,200.00	4,130.69	4,124.69	4,124.69	15.00	162.99	-175.17	0.73	60.44	662.94	494.09	168.85	3.926			
4,300.00	4,228.14	4,222.14	4,222.14	15.48	166.89	-175.33	0.73	60.44	685.31	512.39	172.92	3.963			
4,400.00	4,325.59	4,319.59	4,319.59	15.96	170.78	-175.47	0.73	60.44	707.68	530.70	176.98	3.999			
4,500.00	4,423.04	4,417.04	4,417.04	16.44	174.68	-175.61	0.73	60.44	730.05	549.00	181.05	4.032			
4,600.00	4,520.49	4,514.49	4,514.49	16.92	178.58	-175.74	0.73	60.44	752.43	567.31	185.12	4.065			
4,700.00	4,617.94	4,611.94	4,611.94	17.40	182.48	-175.87	0.73	60.44	774.81	585.63	189.19	4.096			
4,800.00	4,715.39	4,709.39	4,709.39	17.88	186.38	-175.98	0.73	60.44	797.20	603.94	193.25	4.125			
4,900.00	4,812.84	4,806.84	4,806.84	18.36	190.27	-176.09	0.73	60.44	819.59	622.26	197.32	4.154			
5,000.00	4,910.29	4,904.29	4,904.29	18.84	194.17	-176.20	0.73	60.44	841.98	640.59	201.39	4.181			
5,100.00	5,007.74	5,001.74	5,001.74	19.32	198.07	-176.30	0.73	60.44	864.37	658.91	205.46	4.207			
5,200.00	5,105.19	5,099.19	5,099.19	19.80	201.97	-176.39	0.73	60.44	886.77	677.24	209.53	4.232			
5,300.00	5,202.64	5,196.64	5,196.64	20.28	205.87	-176.48	0.73	60.44	909.16	695.56	213.60	4.256			
5,400.00	5,300.09	5,294.09	5,294.09	20.77	209.76	-176.56	0.73	60.44	931.56	713.89	217.67	4.280			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3i EXISTING	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 Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,500.00	5,397.54	5,391.54	5,391.54	21.25	213.66	-176.64	0.73	60.44	953.96	732.22	221.74	4.302			
5,600.00	5,494.99	5,488.99	5,488.99	21.73	217.56	-176.72	0.73	60.44	976.37	750.56	225.81	4.324			
5,700.00	5,592.44	5,586.44	5,586.44	22.21	221.46	-176.80	0.73	60.44	998.77	768.89	229.88	4.345			
5,800.00	5,689.89	5,683.89	5,683.89	22.69	225.36	-176.87	0.73	60.44	1,021.18	787.23	233.95	4.365			
5,900.00	5,787.34	5,781.34	5,781.34	23.18	229.25	-176.93	0.73	60.44	1,043.58	805.56	238.02	4.384			
5,990.14	5,875.18	5,869.18	5,869.18	23.61	232.77	-176.99	0.73	60.44	1,063.78	822.09	241.69	4.401			
6,000.00	5,884.79	5,878.79	5,878.79	23.65	233.15	-177.00	0.73	60.44	1,065.98	823.72	242.25	4.400			
6,100.00	5,982.68	5,976.68	5,976.68	23.97	237.07	-177.08	0.73	60.44	1,086.35	838.42	247.93	4.382			
6,200.00	6,081.23	6,075.23	6,075.23	24.26	241.01	-177.14	0.73	60.44	1,103.29	849.86	253.43	4.353			
6,300.00	6,180.31	6,174.31	6,174.31	24.51	244.97	-177.19	0.73	60.44	1,116.80	858.11	258.68	4.317			
6,400.00	6,279.79	6,273.79	6,273.79	24.72	248.95	-177.22	0.73	60.44	1,126.84	863.18	263.66	4.274			
6,500.00	6,379.57	6,373.57	6,373.57	24.89	252.94	-177.24	0.73	60.44	1,133.40	865.07	268.33	4.224			
6,600.00	6,479.52	6,473.52	6,473.52	25.03	256.94	-177.26	0.73	60.44	1,136.49	863.80	272.69	4.168			
6,638.48	6,518.00	6,512.00	6,512.00	25.07	258.48	27.86	0.73	60.44	1,136.75	862.46	274.29	4.144			
6,700.00	6,579.52	6,573.52	6,573.52	25.14	260.94	27.86	0.73	60.44	1,136.75	859.89	276.86	4.106			
6,800.00	6,679.52	6,673.52	6,673.52	25.25	264.94	27.86	0.73	60.44	1,136.75	855.72	281.02	4.045			
6,900.00	6,779.52	6,773.52	6,773.52	25.35	268.94	27.86	0.73	60.44	1,136.75	851.56	285.19	3.986			
7,000.00	6,879.52	6,873.52	6,873.52	25.46	272.94	27.86	0.73	60.44	1,136.75	847.39	289.36	3.929			
7,100.00	6,979.52	6,973.52	6,973.52	25.56	276.94	27.86	0.73	60.44	1,136.75	843.22	293.53	3.873			
7,200.00	7,079.52	7,073.52	7,073.52	25.67	280.94	27.86	0.73	60.44	1,136.75	839.05	297.70	3.818			
7,300.00	7,179.52	7,173.52	7,173.52	25.78	284.94	27.86	0.73	60.44	1,136.75	834.88	301.87	3.766			
7,400.00	7,279.52	7,273.52	7,273.52	25.89	288.94	27.86	0.73	60.44	1,136.75	830.70	306.04	3.714			
7,500.00	7,379.52	7,373.52	7,373.52	26.01	292.94	27.86	0.73	60.44	1,136.75	826.53	310.22	3.664			
7,600.00	7,479.52	7,473.52	7,473.52	26.12	296.94	27.86	0.73	60.44	1,136.75	822.35	314.39	3.616			
7,700.00	7,579.52	7,573.52	7,573.52	26.24	300.94	27.86	0.73	60.44	1,136.75	818.17	318.57	3.568			
7,800.00	7,679.52	7,673.52	7,673.52	26.36	304.94	27.86	0.73	60.44	1,136.75	814.00	322.75	3.522			
7,900.00	7,779.52	7,773.52	7,773.52	26.47	308.94	27.86	0.73	60.44	1,136.75	809.82	326.93	3.477			
8,000.00	7,879.52	7,873.52	7,873.52	26.59	312.94	27.86	0.73	60.44	1,136.75	805.64	331.11	3.433			
8,100.00	7,979.52	7,973.52	7,973.52	26.72	316.94	27.86	0.73	60.44	1,136.75	801.46	335.29	3.390			
8,200.00	8,079.52	8,073.52	8,073.52	26.84	320.94	27.86	0.73	60.44	1,136.75	797.27	339.47	3.349			
8,300.00	8,179.52	8,173.52	8,173.52	26.96	324.94	27.86	0.73	60.44	1,136.75	793.09	343.65	3.308			
8,400.00	8,279.52	8,273.52	8,273.52	27.09	328.94	27.86	0.73	60.44	1,136.75	788.91	347.84	3.268			
8,465.48	8,345.00	8,339.00	8,339.00	27.17	331.56	27.86	0.73	60.44	1,136.75	786.17	350.58	3.242			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN #1 1-15-10	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	141.10	-7.63	6.16	9.80						
100.00	100.00	100.00	100.00	0.10	1.70	141.10	-7.63	6.16	9.80	8.01	1.80	5.460			
200.00	200.00	200.00	200.00	0.32	5.70	141.10	-7.63	6.16	9.80	3.78	6.02	1.628			
300.00	300.00	300.00	300.00	0.55	9.70	141.10	-7.63	6.16	9.80	-0.44	10.25	0.957 Level 1			
400.00	400.00	400.00	400.00	0.77	13.70	141.10	-7.63	6.16	9.80	-4.67	14.47	0.677 Level 1			
500.00	500.00	500.00	500.00	0.99	17.70	141.10	-7.63	6.16	9.80	-8.89	18.69	0.524 Level 1			
600.00	600.00	600.00	600.00	1.22	21.70	141.10	-7.63	6.16	9.80	-13.12	22.92	0.428 Level 1			
700.00	700.00	700.00	700.00	1.44	25.70	141.10	-7.63	6.16	9.80	-17.34	27.14	0.361 Level 1			
800.00	800.00	800.00	800.00	1.67	29.70	141.10	-7.63	6.16	9.80	-21.57	31.37	0.313 Level 1			
900.00	900.00	900.00	900.00	1.89	33.70	141.10	-7.63	6.16	9.80	-25.79	35.59	0.275 Level 1			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	37.70	141.10	-7.63	6.16	9.80	-30.02	39.82	0.246 Level 1			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	39.70	141.10	-7.63	6.16	9.80	-32.13	41.93	0.234 Level 1, CC			
1,100.00	1,100.00	1,099.90	1,099.90	2.33	40.84	-68.44	-7.57	6.59	9.87	-33.29	43.16	0.229 Level 1, ES, SF			
1,200.00	1,199.93	1,199.42	1,199.35	2.50	41.62	-97.90	-7.14	10.02	12.24	-31.88	44.12	0.277 Level 1			
1,300.00	1,299.68	1,298.11	1,297.80	2.69	42.76	-124.15	-6.28	16.81	21.81	-23.56	45.38	0.481 Level 1			
1,400.00	1,399.13	1,395.44	1,394.60	2.90	44.24	-136.09	-5.02	26.79	38.87	-7.97	46.84	0.830 Level 1			
1,500.00	1,498.15	1,490.91	1,489.17	3.13	46.01	-141.50	-3.39	39.75	62.37	13.90	48.47	1.287 Level 3			
1,600.00	1,596.63	1,584.08	1,580.99	3.40	48.05	-144.24	-1.41	55.40	91.80	41.59	50.21	1.828			
1,698.34	1,692.82	1,673.04	1,668.14	3.71	50.27	-145.72	0.82	73.11	126.23	74.27	51.95	2.430			
1,700.00	1,694.44	1,674.52	1,669.58	3.72	50.30	-145.75	0.86	73.43	126.85	74.86	51.99	2.440			
1,800.00	1,791.89	1,762.50	1,755.18	4.08	52.76	-146.71	3.41	93.61	165.89	111.74	54.15	3.063			
1,900.00	1,889.34	1,848.44	1,838.14	4.46	55.40	-146.96	6.21	115.83	207.45	151.04	56.41	3.677			
2,000.00	1,986.79	1,932.23	1,918.36	4.86	58.20	-146.84	9.24	139.87	251.41	192.68	58.73	4.281			
2,100.00	2,084.24	2,013.84	1,995.76	5.27	61.13	-146.52	12.48	165.51	297.68	236.60	61.08	4.874			
2,200.00	2,181.69	2,093.22	2,070.31	5.70	64.20	-146.11	15.89	192.53	346.20	282.76	63.44	5.457			
2,300.00	2,279.14	2,170.33	2,141.99	6.14	67.40	-145.65	19.45	220.74	396.88	331.06	65.81	6.031			
2,400.00	2,376.59	2,245.18	2,210.81	6.58	70.66	-145.17	23.13	249.94	449.63	381.49	68.15	6.598			
2,500.00	2,474.04	2,325.24	2,283.76	7.03	74.33	-144.67	27.26	282.68	503.99	433.32	70.67	7.132			
2,600.00	2,571.49	2,409.01	2,360.03	7.48	78.29	-144.23	31.60	317.04	558.50	485.16	73.34	7.615			
2,700.00	2,668.94	2,492.79	2,436.31	7.93	82.37	-143.88	35.94	351.40	613.02	536.95	76.07	8.058			
2,800.00	2,766.39	2,576.56	2,512.59	8.39	86.54	-143.58	40.27	385.77	667.56	588.70	78.86	8.465			
2,900.00	2,863.84	2,660.33	2,588.86	8.86	90.78	-143.32	44.61	420.13	722.10	640.42	81.68	8.840			
3,000.00	2,961.29	2,744.10	2,665.14	9.32	95.09	-143.10	48.95	454.50	776.66	692.11	84.55	9.186			
3,100.00	3,058.74	2,827.88	2,741.42	9.79	99.45	-142.91	53.28	488.86	831.23	743.78	87.45	9.505			
3,200.00	3,156.19	2,911.65	2,817.69	10.26	103.86	-142.75	57.62	523.22	885.79	795.41	90.38	9.801			
3,300.00	3,253.64	2,995.42	2,893.97	10.73	108.33	-142.60	61.95	557.59	940.37	847.03	93.34	10.074			
3,400.00	3,351.09	3,079.19	2,970.25	11.20	112.83	-142.47	66.29	591.95	994.95	898.61	96.34	10.328			
3,500.00	3,448.54	3,162.97	3,046.52	11.67	117.37	-142.35	70.63	626.32	1,049.53	950.17	99.35	10.564			
3,600.00	3,545.99	3,246.74	3,122.80	12.15	121.94	-142.25	74.96	660.68	1,104.11	1,001.72	102.39	10.783			
3,700.00	3,643.44	3,330.51	3,199.08	12.62	126.53	-142.15	79.30	695.05	1,158.70	1,053.25	105.45	10.988			
3,800.00	3,740.89	3,414.28	3,275.35	13.10	131.15	-142.06	83.64	729.41	1,213.29	1,104.76	108.53	11.180			
3,900.00	3,838.34	3,498.06	3,351.63	13.57	135.79	-141.98	87.97	763.77	1,267.88	1,156.26	111.62	11.359			
4,000.00	3,935.79	3,581.83	3,427.91	14.05	140.46	-141.91	92.31	798.14	1,322.47	1,207.74	114.73	11.526			
4,100.00	4,033.24	3,665.60	3,504.18	14.53	145.14	-141.84	96.65	832.50	1,377.06	1,259.20	117.86	11.684			
4,200.00	4,130.69	3,749.37	3,580.46	15.00	149.84	-141.78	100.98	866.87	1,431.66	1,310.66	121.00	11.832			
4,300.00	4,228.14	3,833.15	3,656.74	15.48	154.55	-141.72	105.32	901.23	1,486.25	1,362.10	124.15	11.971			
4,400.00	4,325.59	3,916.92	3,733.01	15.96	159.28	-141.67	109.65	935.59	1,540.85	1,413.54	127.31	12.103			
4,500.00	4,423.04	4,000.69	3,809.29	16.44	164.01	-141.62	113.99	969.96	1,595.45	1,464.96	130.49	12.227			
4,600.00	4,520.49	4,084.46	3,885.56	16.92	168.77	-141.57	118.33	1,004.32	1,650.04	1,516.37	133.67	12.344			
4,700.00	4,617.94	4,168.23	3,961.84	17.40	173.53	-141.53	122.66	1,038.69	1,704.64	1,567.78	136.87	12.455			
4,800.00	4,715.39	4,252.01	4,038.12	17.88	178.30	-141.49	127.00	1,073.05	1,759.24	1,619.17	140.07	12.560			
4,900.00	4,812.84	4,335.78	4,114.39	18.36	183.08	-141.45	131.34	1,107.41	1,813.84	1,670.56	143.28	12.659			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN #1 1-15-10	Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,000.00	4,910.29	4,419.55	4,190.67	18.84	187.86	-141.41	135.67	1,141.78	1,868.44	1,721.95	146.50	12.754		
5,100.00	5,007.74	4,503.32	4,266.95	19.32	192.66	-141.38	140.01	1,176.14	1,923.05	1,773.32	149.72	12.844		
5,200.00	5,105.19	4,587.10	4,343.22	19.80	197.46	-141.35	144.34	1,210.51	1,977.65	1,824.69	152.96	12.930		
5,300.00	5,202.64	4,670.87	4,419.50	20.28	202.27	-141.32	148.68	1,244.87	2,032.25	1,876.05	156.20	13.011		
5,400.00	5,300.09	4,754.64	4,495.78	20.77	207.09	-141.29	153.02	1,279.23	2,086.85	1,927.41	159.44	13.089		
5,500.00	5,397.54	4,838.41	4,572.05	21.25	211.91	-141.26	157.35	1,313.60	2,141.45	1,978.77	162.69	13.163		
5,600.00	5,494.99	4,922.19	4,648.33	21.73	216.73	-141.24	161.69	1,347.96	2,196.06	2,030.11	165.94	13.234		
5,700.00	5,592.44	5,005.96	4,724.61	22.21	221.56	-141.21	166.03	1,382.33	2,250.66	2,081.46	169.20	13.301		
5,800.00	5,689.89	5,089.73	4,800.88	22.69	226.40	-141.19	170.36	1,416.69	2,305.27	2,132.80	172.47	13.366		
5,900.00	5,787.34	5,173.50	4,877.16	23.18	231.24	-141.16	174.70	1,451.05	2,359.87	2,184.13	175.74	13.428		
5,990.14	5,875.18	5,249.01	4,945.92	23.61	235.60	-141.14	178.61	1,482.03	2,409.09	2,230.40	178.69	13.482		
6,000.00	5,884.79	5,257.28	4,953.44	23.65	236.08	-141.22	179.04	1,485.42	2,414.46	2,235.18	179.28	13.467		
6,100.00	5,982.68	5,341.91	5,030.50	23.97	240.98	-141.95	183.42	1,520.14	2,467.69	2,282.42	185.27	13.319		
6,200.00	6,081.23	5,427.89	5,108.78	24.26	245.96	-142.56	187.87	1,555.40	2,518.58	2,327.30	191.27	13.167		
6,300.00	6,180.31	5,515.11	5,188.20	24.51	251.01	-143.07	192.38	1,591.19	2,567.07	2,369.70	197.37	13.006		
6,400.00	6,279.79	5,603.48	5,268.66	24.72	256.14	-143.48	196.96	1,627.43	2,613.12	2,409.73	203.39	12.848		
6,500.00	6,379.57	5,692.88	5,350.06	24.89	261.32	-143.81	201.58	1,664.10	2,656.70	2,447.41	209.30	12.693		
6,600.00	6,479.52	5,783.20	5,432.30	25.03	266.57	-144.05	206.26	1,701.16	2,697.78	2,482.71	215.07	12.544		
6,638.48	6,518.00	5,818.18	5,464.15	25.07	268.60	60.99	208.07	1,715.50	2,712.92	2,495.67	217.25	12.488		
6,700.00	6,579.52	5,874.19	5,515.15	25.14	271.86	61.19	210.97	1,738.48	2,736.83	2,517.48	219.35	12.477		
6,800.00	6,679.52	5,965.24	5,598.06	25.25	277.15	61.50	215.68	1,775.83	2,775.75	2,553.00	222.75	12.461		
6,900.00	6,779.52	6,056.30	5,680.96	25.35	282.44	61.80	220.39	1,813.18	2,814.75	2,588.60	226.15	12.446		
7,000.00	6,879.52	6,147.35	5,763.87	25.46	287.74	62.09	225.11	1,850.53	2,853.81	2,624.26	229.55	12.432		
7,100.00	6,979.52	6,238.40	5,846.77	25.56	293.04	62.38	229.82	1,887.88	2,892.93	2,659.98	232.95	12.419		
7,200.00	7,079.52	6,329.45	5,929.68	25.67	298.35	62.66	234.53	1,925.23	2,932.12	2,695.77	236.35	12.406		
7,300.00	7,179.52	6,420.50	6,012.58	25.78	303.65	62.93	239.25	1,962.58	2,971.36	2,731.62	239.74	12.394		
7,400.00	7,279.52	7,724.37	7,279.52	25.89	357.85	64.62	271.51	2,218.23	2,976.24	2,690.44	285.80	10.414		
7,500.00	7,379.52	7,824.37	7,379.52	26.01	358.74	64.62	271.51	2,218.23	2,976.24	2,689.21	287.03	10.369		
7,600.00	7,479.52	7,924.37	7,479.52	26.12	359.67	64.62	271.51	2,218.23	2,976.24	2,687.92	288.32	10.323		
7,700.00	7,579.52	8,024.37	7,579.52	26.24	360.65	64.62	271.51	2,218.23	2,976.24	2,686.58	289.66	10.275		
7,800.00	7,679.52	8,124.37	7,679.52	26.36	361.67	64.62	271.51	2,218.23	2,976.24	2,685.18	291.06	10.226		
7,900.00	7,779.52	8,224.37	7,779.52	26.47	362.73	64.62	271.51	2,218.23	2,976.24	2,683.73	292.51	10.175		
8,000.00	7,879.52	8,324.37	7,879.52	26.59	363.83	64.62	271.51	2,218.23	2,976.24	2,682.22	294.02	10.123		
8,100.00	7,979.52	8,424.37	7,979.52	26.72	364.97	64.62	271.51	2,218.23	2,976.24	2,680.66	295.58	10.069		
8,200.00	8,079.52	8,524.37	8,079.52	26.84	366.15	64.62	271.51	2,218.23	2,976.24	2,679.05	297.19	10.015		
8,300.00	8,179.52	8,624.37	8,179.52	26.96	367.37	64.62	271.51	2,218.23	2,976.24	2,677.39	298.85	9.959		
8,400.00	8,279.52	8,724.37	8,279.52	27.09	368.63	64.62	271.51	2,218.23	2,976.24	2,675.68	300.56	9.902		
8,465.48	8,345.00	8,789.85	8,345.00	27.17	369.47	64.62	271.51	2,218.23	2,976.24	2,674.53	301.71	9.865		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN #1 1-15-10	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 Tooface (°)	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	-38.75	8.02	-6.44	10.28					
100.00	100.00	100.00	100.00	0.10	0.10	-38.75	8.02	-6.44	10.28	10.09	0.19	53.818		
200.00	200.00	200.00	200.00	0.32	0.32	-38.75	8.02	-6.44	10.28	9.64	0.64	16.051		
300.00	300.00	300.00	300.00	0.55	0.55	-38.75	8.02	-6.44	10.28	9.19	1.09	9.432		
400.00	400.00	400.00	400.00	0.77	0.77	-38.75	8.02	-6.44	10.28	8.74	1.54	6.678		
500.00	500.00	500.00	500.00	0.99	0.99	-38.75	8.02	-6.44	10.28	8.29	1.99	5.169		
600.00	600.00	600.00	600.00	1.22	1.22	-38.75	8.02	-6.44	10.28	7.84	2.44	4.216		
700.00	700.00	700.00	700.00	1.44	1.44	-38.75	8.02	-6.44	10.28	7.39	2.89	3.560		
800.00	800.00	800.00	800.00	1.67	1.67	-38.75	8.02	-6.44	10.28	6.94	3.34	3.080		
900.00	900.00	900.00	900.00	1.89	1.89	-38.75	8.02	-6.44	10.28	6.49	3.79	2.715		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-38.75	8.02	-6.44	10.28	6.05	4.24	2.427		
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-38.75	8.02	-6.44	10.28	5.82	4.46	2.305 CC		
1,050.04	1,050.04	1,050.04	1,050.04	2.23	2.23	-38.75	8.02	-6.44	10.28	5.82	4.46	2.304		
1,100.00	1,100.00	1,100.05	1,100.05	2.33	2.34	120.56	8.15	-6.02	10.34	5.68	4.67	2.216 ES, SF		
1,200.00	1,199.93	1,199.86	1,199.79	2.50	2.55	150.24	9.16	-2.69	12.76	7.71	5.05	2.528		
1,300.00	1,299.68	1,298.75	1,298.44	2.69	2.76	176.89	11.17	3.89	22.73	17.30	5.43	4.188		
1,400.00	1,399.13	1,396.16	1,395.32	2.90	2.99	-170.89	14.12	13.54	40.55	34.74	5.81	6.979		
1,500.00	1,498.15	1,491.54	1,489.80	3.13	3.23	-165.21	17.93	26.04	65.11	58.91	6.20	10.505		
1,600.00	1,596.63	1,584.74	1,581.65	3.40	3.50	-162.15	22.54	41.13	95.82	89.23	6.59	14.539		
1,698.34	1,692.82	1,676.86	1,672.23	3.71	3.78	-160.69	27.42	57.12	130.17	123.18	6.99	18.622		
1,700.00	1,694.44	1,678.40	1,673.75	3.72	3.79	-160.68	27.50	57.38	130.77	123.77	7.00	18.688		
1,800.00	1,791.89	1,771.51	1,765.31	4.08	4.09	-160.17	32.43	73.54	167.24	159.78	7.46	22.412		
1,900.00	1,889.34	1,864.61	1,856.87	4.46	4.41	-159.84	37.36	89.69	203.72	195.78	7.94	25.653		
2,000.00	1,986.79	1,957.72	1,948.43	4.86	4.73	-159.62	42.30	105.85	240.20	231.77	8.43	28.485		
2,100.00	2,084.24	2,050.82	2,039.99	5.27	5.07	-159.45	47.23	122.00	276.68	267.75	8.93	30.970		
2,200.00	2,181.69	2,143.92	2,131.55	5.70	5.41	-159.32	52.16	138.16	313.17	303.72	9.44	33.161		
2,300.00	2,279.14	2,237.03	2,223.11	6.14	5.75	-159.22	57.09	154.31	349.66	339.69	9.96	35.103		
2,400.00	2,376.59	2,330.13	2,314.67	6.58	6.10	-159.14	62.02	170.47	386.14	375.66	10.48	36.831		
2,500.00	2,474.04	2,423.24	2,406.23	7.03	6.45	-159.07	66.95	186.62	422.63	411.62	11.01	38.377		
2,600.00	2,571.49	2,516.34	2,497.79	7.48	6.81	-159.01	71.88	202.77	459.12	447.57	11.55	39.766		
2,700.00	2,668.94	2,609.45	2,589.35	7.93	7.17	-158.96	76.82	218.93	495.61	483.52	12.08	41.019		
2,800.00	2,766.39	2,702.55	2,680.91	8.39	7.53	-158.92	81.75	235.08	532.09	519.47	12.62	42.154		
2,900.00	2,863.84	2,795.66	2,772.47	8.86	7.89	-158.88	86.68	251.24	568.58	555.42	13.17	43.186		
3,000.00	2,961.29	2,888.76	2,864.03	9.32	8.26	-158.85	91.61	267.39	605.07	591.36	13.71	44.128		
3,100.00	3,058.74	2,981.87	2,955.59	9.79	8.62	-158.82	96.54	283.55	641.56	627.30	14.26	44.991		
3,200.00	3,156.19	3,074.97	3,047.15	10.26	8.99	-158.80	101.47	299.70	678.05	663.24	14.81	45.783		
3,300.00	3,253.64	3,168.07	3,138.71	10.73	9.36	-158.78	106.41	315.86	714.54	699.18	15.36	46.513		
3,400.00	3,351.09	3,261.18	3,230.27	11.20	9.73	-158.75	111.34	332.01	751.03	735.11	15.92	47.187		
3,500.00	3,448.54	3,354.28	3,321.83	11.67	10.10	-158.74	116.27	348.17	787.52	771.05	16.47	47.812		
3,600.00	3,545.99	3,447.39	3,413.39	12.15	10.47	-158.72	121.20	364.32	824.01	806.98	17.03	48.393		
3,700.00	3,643.44	3,540.49	3,504.95	12.62	10.84	-158.70	126.13	380.47	860.50	842.91	17.59	48.933		
3,800.00	3,740.89	3,633.60	3,596.51	13.10	11.21	-158.69	131.06	396.63	896.99	878.84	18.14	49.438		
3,900.00	3,838.34	3,726.70	3,688.07	13.57	11.58	-158.68	135.99	412.78	933.48	914.77	18.70	49.909		
4,000.00	3,935.79	3,819.81	3,779.62	14.05	11.96	-158.66	140.93	428.94	969.97	950.70	19.26	50.351		
4,100.00	4,033.24	3,912.91	3,871.18	14.53	12.33	-158.65	145.86	445.09	1,006.46	986.63	19.83	50.765		
4,200.00	4,130.69	4,006.02	3,962.74	15.00	12.70	-158.64	150.79	461.25	1,042.95	1,022.56	20.39	51.155		
4,300.00	4,228.14	4,099.12	4,054.30	15.48	13.08	-158.63	155.72	477.40	1,079.44	1,058.49	20.95	51.523		
4,400.00	4,325.59	4,192.22	4,145.86	15.96	13.45	-158.62	160.65	493.56	1,115.93	1,094.41	21.51	51.869		
4,500.00	4,423.04	4,285.33	4,237.42	16.44	13.83	-158.61	165.58	509.71	1,152.42	1,130.34	22.08	52.196		
4,600.00	4,520.49	4,378.43	4,328.98	16.92	14.20	-158.61	170.51	525.86	1,188.91	1,166.26	22.64	52.506		
4,700.00	4,617.94	4,471.54	4,420.54	17.40	14.58	-158.60	175.45	542.02	1,225.40	1,202.19	23.21	52.800		
4,800.00	4,715.39	4,564.64	4,512.10	17.88	14.96	-158.59	180.38	558.17	1,261.89	1,238.11	23.77	53.078		

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
4,900.00	4,812.84	4,657.75	4,603.66	18.36	15.33	-158.58	185.31	574.33	1,298.38	1,274.04	24.34	53.343			
5,000.00	4,910.29	4,750.85	4,695.22	18.84	15.71	-158.58	190.24	590.48	1,334.87	1,309.96	24.91	53.595			
5,100.00	5,007.74	4,843.96	4,786.78	19.32	16.09	-158.57	195.17	606.64	1,371.36	1,345.88	25.47	53.835			
5,200.00	5,105.19	4,937.06	4,878.34	19.80	16.46	-158.57	200.10	622.79	1,407.85	1,381.81	26.04	54.063			
5,300.00	5,202.64	5,030.17	4,969.90	20.28	16.84	-158.56	205.04	638.95	1,444.34	1,417.73	26.61	54.281			
5,400.00	5,300.09	5,123.27	5,061.46	20.77	17.22	-158.55	209.97	655.10	1,480.83	1,453.65	27.18	54.490			
5,500.00	5,397.54	5,216.38	5,153.02	21.25	17.60	-158.55	214.90	671.25	1,517.32	1,489.57	27.74	54.689			
5,600.00	5,494.99	5,309.48	5,244.58	21.73	17.97	-158.55	219.83	687.41	1,553.81	1,525.49	28.31	54.880			
5,700.00	5,592.44	5,402.58	5,336.14	22.21	18.35	-158.54	224.76	703.56	1,590.30	1,561.42	28.88	55.063			
5,800.00	5,689.89	5,495.69	5,427.70	22.69	18.73	-158.54	229.69	719.72	1,626.79	1,597.34	29.45	55.238			
5,900.00	5,787.34	5,588.79	5,519.26	23.18	19.11	-158.53	234.62	735.87	1,663.28	1,633.26	30.02	55.406			
5,990.14	5,875.18	5,672.72	5,601.79	23.61	19.45	-158.53	239.07	750.43	1,696.17	1,665.64	30.53	55.552			
6,000.00	5,884.79	5,681.90	5,610.82	23.65	19.49	-158.56	239.56	752.03	1,699.75	1,669.15	30.60	55.543			
6,100.00	5,982.68	5,775.69	5,703.06	23.97	19.87	-158.79	244.52	768.30	1,734.42	1,703.16	31.26	55.479			
6,200.00	6,081.23	5,870.54	5,796.33	24.26	20.25	-158.96	249.55	784.76	1,766.03	1,734.14	31.89	55.382			
6,300.00	6,180.31	5,966.33	5,890.53	24.51	20.64	-159.06	254.62	801.38	1,794.52	1,762.05	32.48	55.257			
6,400.00	6,279.79	6,063.28	5,985.87	24.72	21.04	-159.10	259.76	818.20	1,819.89	1,786.87	33.02	55.108			
6,500.00	6,379.57	6,291.27	6,211.49	24.89	21.67	-158.94	269.20	849.14	1,838.63	1,804.90	33.73	54.510			
6,600.00	6,479.52	6,525.26	6,444.97	25.03	22.09	-158.87	273.42	862.96	1,847.03	1,812.72	34.30	53.843			
6,638.48	6,518.00	6,598.29	6,518.00	25.07	22.19	46.24	273.60	863.56	1,847.51	1,813.03	34.48	53.589			
6,700.00	6,579.52	6,659.81	6,579.52	25.14	22.27	46.24	273.60	863.56	1,847.51	1,812.82	34.68	53.268			
6,800.00	6,679.52	6,759.81	6,679.52	25.25	22.41	46.24	273.60	863.56	1,847.51	1,812.50	35.01	52.773			
6,900.00	6,779.52	6,859.81	6,779.52	25.35	22.56	46.24	273.60	863.56	1,847.51	1,812.17	35.34	52.282			
7,000.00	6,879.52	6,959.81	6,879.52	25.46	22.70	46.24	273.60	863.56	1,847.51	1,811.84	35.67	51.796			
7,100.00	6,979.52	7,059.81	6,979.52	25.56	22.84	46.24	273.60	863.56	1,847.51	1,811.50	36.00	51.316			
7,200.00	7,079.52	7,159.81	7,079.52	25.67	22.99	46.24	273.60	863.56	1,847.51	1,811.17	36.34	50.841			
7,300.00	7,179.52	7,259.81	7,179.52	25.78	23.14	46.24	273.60	863.56	1,847.51	1,810.83	36.68	50.372			
7,400.00	7,279.52	7,359.81	7,279.52	25.89	23.28	46.24	273.60	863.56	1,847.51	1,810.49	37.02	49.908			
7,500.00	7,379.52	7,459.81	7,379.52	26.01	23.43	46.24	273.60	863.56	1,847.51	1,810.14	37.36	49.449			
7,600.00	7,479.52	7,559.81	7,479.52	26.12	23.58	46.24	273.60	863.56	1,847.51	1,809.80	37.71	48.996			
7,700.00	7,579.52	7,659.81	7,579.52	26.24	23.74	46.24	273.60	863.56	1,847.51	1,809.45	38.05	48.549			
7,800.00	7,679.52	7,759.81	7,679.52	26.36	23.89	46.24	273.60	863.56	1,847.51	1,809.10	38.40	48.107			
7,900.00	7,779.52	7,859.81	7,779.52	26.47	24.04	46.24	273.60	863.56	1,847.51	1,808.75	38.76	47.670			
8,000.00	7,879.52	7,959.81	7,879.52	26.59	24.20	46.24	273.60	863.56	1,847.51	1,808.40	39.11	47.239			
8,100.00	7,979.52	8,059.81	7,979.52	26.72	24.35	46.24	273.60	863.56	1,847.51	1,808.04	39.47	46.813			
8,200.00	8,079.52	8,159.81	8,079.52	26.84	24.51	46.24	273.60	863.56	1,847.51	1,807.68	39.82	46.393			
8,300.00	8,179.52	8,259.81	8,179.52	26.96	24.67	46.24	273.60	863.56	1,847.51	1,807.32	40.18	45.977			
8,400.00	8,279.52	8,359.81	8,279.52	27.09	24.83	46.24	273.60	863.56	1,847.51	1,806.96	40.54	45.568			
8,465.48	8,345.00	8,425.29	8,345.00	27.17	24.93	46.24	273.60	863.56	1,847.51	1,806.72	40.78	45.303			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 12-3 - P_KERR-MCGEE 12-3 - PLAN #1 1-15-10	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 Tooflance (°)	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	-38.78	31.70	-25.46	40.66						
100.00	100.00	100.00	100.00	0.10	0.10	-38.78	31.70	-25.46	40.66	40.47	0.19	212.815			
200.00	200.00	200.00	200.00	0.32	0.32	-38.78	31.70	-25.46	40.66	40.02	0.64	63.471			
300.00	300.00	300.00	300.00	0.55	0.55	-38.78	31.70	-25.46	40.66	39.57	1.09	37.298			
400.00	400.00	400.00	400.00	0.77	0.77	-38.78	31.70	-25.46	40.66	39.12	1.54	26.408			
500.00	500.00	500.00	500.00	0.99	0.99	-38.78	31.70	-25.46	40.66	38.67	1.99	20.440			
600.00	600.00	600.00	600.00	1.22	1.22	-38.78	31.70	-25.46	40.66	38.22	2.44	16.672			
700.00	700.00	700.00	700.00	1.44	1.44	-38.78	31.70	-25.46	40.66	37.77	2.89	14.077			
800.00	800.00	800.00	800.00	1.67	1.67	-38.78	31.70	-25.46	40.66	37.32	3.34	12.181			
900.00	900.00	900.00	900.00	1.89	1.89	-38.78	31.70	-25.46	40.66	36.87	3.79	10.735			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-38.78	31.70	-25.46	40.66	36.42	4.24	9.596			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-38.78	31.70	-25.46	40.66	36.20	4.46	9.113 CC, ES			
1,100.00	1,100.00	1,099.34	1,099.34	2.33	2.34	116.42	31.91	-25.83	41.25	36.58	4.67	8.838 SF			
1,200.00	1,199.93	1,197.83	1,197.77	2.50	2.55	118.59	33.58	-28.78	46.03	40.98	5.05	9.114			
1,300.00	1,299.68	1,295.76	1,295.46	2.69	2.77	121.78	36.89	-34.63	55.72	50.27	5.45	10.232			
1,400.00	1,399.13	1,394.23	1,393.49	2.90	3.00	125.29	41.43	-42.65	69.66	63.80	5.86	11.891			
1,500.00	1,498.15	1,492.70	1,491.52	3.13	3.23	129.33	46.04	-50.78	86.06	79.77	6.29	13.685			
1,600.00	1,596.63	1,590.60	1,588.98	3.40	3.48	133.38	50.61	-58.86	105.12	98.38	6.73	15.609			
1,698.34	1,692.82	1,686.21	1,684.16	3.71	3.72	137.11	55.08	-66.75	126.69	119.50	7.18	17.632			
1,700.00	1,694.44	1,687.82	1,685.76	3.72	3.72	137.18	55.16	-66.89	127.07	119.88	7.19	17.666			
1,800.00	1,791.89	1,784.67	1,782.17	4.08	3.97	140.49	59.68	-74.88	150.74	143.05	7.69	19.602			
1,900.00	1,889.34	1,881.51	1,878.58	4.46	4.23	142.90	64.21	-82.87	174.75	166.55	8.20	21.314			
2,000.00	1,986.79	1,978.36	1,974.99	4.86	4.48	144.73	68.74	-90.87	198.98	190.27	8.72	22.829			
2,100.00	2,084.24	2,075.21	2,071.40	5.27	4.74	146.16	73.27	-98.86	223.37	214.12	9.24	24.171			
2,200.00	2,181.69	2,172.05	2,167.81	5.70	5.00	147.31	77.79	-106.85	247.85	238.08	9.77	25.364			
2,300.00	2,279.14	2,268.90	2,264.22	6.14	5.26	148.25	82.32	-114.85	272.42	262.11	10.31	26.429			
2,400.00	2,376.59	2,365.75	2,360.63	6.58	5.53	149.04	86.85	-122.84	297.04	286.20	10.85	27.384			
2,500.00	2,474.04	2,462.60	2,457.04	7.03	5.79	149.71	91.38	-130.83	321.71	310.32	11.39	28.244			
2,600.00	2,571.49	2,559.44	2,553.45	7.48	6.06	150.28	95.90	-138.83	346.42	334.48	11.94	29.021			
2,700.00	2,668.94	2,656.29	2,649.86	7.93	6.32	150.78	100.43	-146.82	371.15	358.66	12.49	29.726			
2,800.00	2,766.39	2,753.14	2,746.27	8.39	6.59	151.21	104.96	-154.81	395.90	382.86	13.04	30.368			
2,900.00	2,863.84	2,849.98	2,842.68	8.86	6.86	151.59	109.49	-162.81	420.68	407.09	13.59	30.955			
3,000.00	2,961.29	2,946.83	2,939.09	9.32	7.13	151.93	114.01	-170.80	445.46	431.32	14.14	31.493			
3,100.00	3,058.74	3,043.68	3,035.50	9.79	7.40	152.24	118.54	-178.79	470.27	455.57	14.70	31.988			
3,200.00	3,156.19	3,140.52	3,131.91	10.26	7.67	152.51	123.07	-186.79	495.08	479.82	15.26	32.445			
3,300.00	3,253.64	3,237.37	3,228.32	10.73	7.94	152.76	127.60	-194.78	519.90	504.08	15.82	32.867			
3,400.00	3,351.09	3,334.22	3,324.73	11.20	8.21	152.98	132.12	-202.77	544.73	528.36	16.38	33.259			
3,500.00	3,448.54	3,431.06	3,421.14	11.67	8.48	153.19	136.65	-210.77	569.57	552.63	16.94	33.624			
3,600.00	3,545.99	3,527.91	3,517.55	12.15	8.75	153.38	141.18	-218.76	594.42	576.92	17.50	33.964			
3,700.00	3,643.44	3,624.76	3,613.96	12.62	9.02	153.55	145.71	-226.75	619.27	601.20	18.06	34.281			
3,800.00	3,740.89	3,721.60	3,710.37	13.10	9.29	153.71	150.23	-234.75	644.12	625.50	18.63	34.578			
3,900.00	3,838.34	3,818.45	3,806.78	13.57	9.56	153.86	154.76	-242.74	668.98	649.79	19.19	34.857			
4,000.00	3,935.79	3,915.30	3,903.19	14.05	9.84	154.00	159.29	-250.74	693.85	674.09	19.76	35.119			
4,100.00	4,033.24	4,012.14	3,999.60	14.53	10.11	154.13	163.82	-258.73	718.71	698.39	20.32	35.365			
4,200.00	4,130.69	4,108.99	4,096.01	15.00	10.38	154.24	168.34	-266.72	743.58	722.70	20.89	35.598			
4,300.00	4,228.14	4,205.84	4,192.42	15.48	10.66	154.36	172.87	-274.72	768.46	747.00	21.45	35.817			
4,400.00	4,325.59	4,302.68	4,288.83	15.96	10.93	154.46	177.40	-282.71	793.33	771.31	22.02	36.025			
4,500.00	4,423.04	4,399.53	4,385.25	16.44	11.20	154.56	181.93	-290.70	818.21	795.62	22.59	36.221			
4,600.00	4,520.49	4,496.38	4,481.66	16.92	11.48	154.65	186.45	-298.70	843.09	819.93	23.16	36.408			
4,700.00	4,617.94	4,593.22	4,578.07	17.40	11.75	154.74	190.98	-306.69	867.97	844.25	23.72	36.585			
4,800.00	4,715.39	4,690.07	4,674.48	17.88	12.02	154.82	195.51	-314.68	892.86	868.56	24.29	36.753			
4,900.00	4,812.84	4,786.92	4,770.89	18.36	12.30	154.90	200.03	-322.68	917.74	892.88	24.86	36.914			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 12-3 - P_KERR-MCGEE 12-3 - PLAN #1 1-15-10	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	4,910.29	4,883.76	4,867.30	18.84	12.57	154.97	204.56	-330.67	942.63	917.20	25.43	37.067			
5,100.00	5,007.74	4,980.61	4,963.71	19.32	12.85	155.04	209.09	-338.66	967.52	941.52	26.00	37.212			
5,200.00	5,105.19	5,077.46	5,060.12	19.80	13.12	155.11	213.62	-346.66	992.41	965.84	26.57	37.352			
5,300.00	5,202.64	5,174.30	5,156.53	20.28	13.40	155.17	218.14	-354.65	1,017.30	990.16	27.14	37.485			
5,400.00	5,300.09	5,271.15	5,252.94	20.77	13.67	155.23	222.67	-362.64	1,042.19	1,014.48	27.71	37.612			
5,500.00	5,397.54	5,368.00	5,349.35	21.25	13.94	155.29	227.20	-370.64	1,067.08	1,038.80	28.28	37.734			
5,600.00	5,494.99	5,464.84	5,445.76	21.73	14.22	155.34	231.73	-378.63	1,091.98	1,063.13	28.85	37.851			
5,700.00	5,592.44	5,561.69	5,542.17	22.21	14.49	155.40	236.25	-386.62	1,116.87	1,087.45	29.42	37.964			
5,800.00	5,689.89	5,658.54	5,638.58	22.69	14.77	155.45	240.78	-394.62	1,141.77	1,111.78	29.99	38.071			
5,900.00	5,787.34	5,755.38	5,734.99	23.18	15.04	155.50	245.31	-402.61	1,166.66	1,136.10	30.56	38.175			
5,990.14	5,875.18	5,842.68	5,821.89	23.61	15.29	155.54	249.39	-409.82	1,189.11	1,158.03	31.08	38.265			
6,000.00	5,884.79	5,852.24	5,831.40	23.65	15.32	155.56	249.84	-410.60	1,191.55	1,160.41	31.14	38.265			
6,100.00	5,982.68	5,949.54	5,928.26	23.97	15.59	155.76	254.39	-418.64	1,214.60	1,182.86	31.74	38.269			
6,200.00	6,081.23	6,047.51	6,025.80	24.26	15.87	155.86	258.97	-426.72	1,234.54	1,202.23	32.31	38.210			
6,300.00	6,180.31	6,146.05	6,123.89	24.51	16.15	155.87	263.57	-434.85	1,251.35	1,218.50	32.85	38.095			
6,400.00	6,279.79	6,245.01	6,222.41	24.72	16.43	155.79	268.20	-443.02	1,265.03	1,231.68	33.35	37.928			
6,500.00	6,379.57	6,364.30	6,341.28	24.89	16.71	155.63	273.03	-451.55	1,274.99	1,241.18	33.81	37.711			
6,600.00	6,479.52	6,491.52	6,468.39	25.03	16.93	155.54	275.55	-456.00	1,279.74	1,245.57	34.17	37.451			
6,638.48	6,518.00	6,540.58	6,517.45	25.07	17.01	0.64	275.78	-456.40	1,280.15	1,245.86	34.29	37.332			
6,700.00	6,579.52	6,602.65	6,579.52	25.14	17.11	0.64	275.78	-456.41	1,280.15	1,245.66	34.49	37.112			
6,800.00	6,679.52	6,702.65	6,679.52	25.25	17.30	0.64	275.78	-456.41	1,280.15	1,245.32	34.83	36.751			
6,900.00	6,779.52	6,802.65	6,779.52	25.35	17.48	0.64	275.78	-456.41	1,280.15	1,244.98	35.17	36.394			
7,000.00	6,879.52	6,902.65	6,879.52	25.46	17.67	0.64	275.78	-456.41	1,280.15	1,244.63	35.52	36.042			
7,100.00	6,979.52	7,002.65	6,979.52	25.56	17.85	0.64	275.78	-456.41	1,280.15	1,244.29	35.86	35.695			
7,200.00	7,079.52	7,102.65	7,079.52	25.67	18.04	0.64	275.78	-456.41	1,280.15	1,243.94	36.21	35.351			
7,300.00	7,179.52	7,202.65	7,179.52	25.78	18.23	0.64	275.78	-456.41	1,280.15	1,243.59	36.56	35.013			
7,400.00	7,279.52	7,302.65	7,279.52	25.89	18.42	0.64	275.78	-456.41	1,280.15	1,243.24	36.91	34.678			
7,500.00	7,379.52	7,402.65	7,379.52	26.01	18.61	0.64	275.78	-456.41	1,280.15	1,242.88	37.27	34.349			
7,600.00	7,479.52	7,502.65	7,479.52	26.12	18.80	0.64	275.78	-456.41	1,280.15	1,242.52	37.63	34.023			
7,700.00	7,579.52	7,602.65	7,579.52	26.24	18.99	0.64	275.78	-456.41	1,280.15	1,242.17	37.98	33.702			
7,800.00	7,679.52	7,702.65	7,679.52	26.36	19.18	0.64	275.78	-456.41	1,280.15	1,241.81	38.34	33.385			
7,900.00	7,779.52	7,802.65	7,779.52	26.47	19.38	0.64	275.78	-456.41	1,280.15	1,241.44	38.71	33.073			
8,000.00	7,879.52	7,902.65	7,879.52	26.59	19.57	0.64	275.78	-456.41	1,280.15	1,241.08	39.07	32.765			
8,100.00	7,979.52	8,002.65	7,979.52	26.72	19.76	0.64	275.78	-456.41	1,280.15	1,240.71	39.44	32.461			
8,200.00	8,079.52	8,102.65	8,079.52	26.84	19.96	0.64	275.78	-456.41	1,280.15	1,240.35	39.80	32.162			
8,300.00	8,179.52	8,202.65	8,179.52	26.96	20.16	0.64	275.78	-456.41	1,280.15	1,239.98	40.17	31.866			
8,400.00	8,279.52	8,302.65	8,279.52	27.09	20.35	0.64	275.78	-456.41	1,280.15	1,239.61	40.54	31.575			
8,465.48	8,345.00	8,368.13	8,345.00	27.17	20.48	0.64	275.78	-456.41	1,280.15	1,239.36	40.79	31.387			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN #1 1-15-10	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			
0.00	0.00	0.00	0.00	0.00	0.00	140.93	-38.61	31.34	49.73						
100.00	100.00	100.00	100.00	0.10	0.10	140.93	-38.61	31.34	49.73	49.53	0.19	260.274			
200.00	200.00	200.00	200.00	0.32	0.32	140.93	-38.61	31.34	49.73	49.09	0.64	77.626			
300.00	300.00	300.00	300.00	0.55	0.55	140.93	-38.61	31.34	49.73	48.64	1.09	45.615			
400.00	400.00	400.00	400.00	0.77	0.77	140.93	-38.61	31.34	49.73	48.19	1.54	32.297			
500.00	500.00	500.00	500.00	0.99	0.99	140.93	-38.61	31.34	49.73	47.74	1.99	24.998			
600.00	600.00	600.00	600.00	1.22	1.22	140.93	-38.61	31.34	49.73	47.29	2.44	20.390			
700.00	700.00	700.00	700.00	1.44	1.44	140.93	-38.61	31.34	49.73	46.84	2.89	17.217			
800.00	800.00	800.00	800.00	1.67	1.67	140.93	-38.61	31.34	49.73	46.39	3.34	14.898			
900.00	900.00	900.00	900.00	1.89	1.89	140.93	-38.61	31.34	49.73	45.94	3.79	13.130			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	140.93	-38.61	31.34	49.73	45.49	4.24	11.736			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	140.93	-38.61	31.34	49.73	45.26	4.46	11.145 CC, ES			
1,100.00	1,100.00	1,099.14	1,099.14	2.33	2.33	-64.62	-38.93	31.61	49.97	45.31	4.66	10.727			
1,200.00	1,199.93	1,197.33	1,197.26	2.50	2.51	-68.00	-41.53	33.75	51.99	46.99	5.01	10.383 SF			
1,300.00	1,299.68	1,295.22	1,294.92	2.69	2.69	-73.93	-46.71	38.00	56.54	51.16	5.38	10.519			
1,400.00	1,399.13	1,392.62	1,391.80	2.90	2.90	-81.08	-54.41	44.33	64.31	58.54	5.77	11.147			
1,500.00	1,498.15	1,489.33	1,487.61	3.13	3.13	-88.11	-64.58	52.69	75.86	69.65	6.20	12.231			
1,600.00	1,596.63	1,585.19	1,582.09	3.40	3.39	-94.20	-77.11	62.99	91.43	84.74	6.69	13.665			
1,698.34	1,692.82	1,678.46	1,673.43	3.71	3.69	-99.03	-91.65	74.93	110.67	103.44	7.24	15.289			
1,700.00	1,694.44	1,680.02	1,674.96	3.72	3.69	-99.11	-91.91	75.15	111.03	103.78	7.25	15.318			
1,800.00	1,791.89	1,773.88	1,766.20	4.08	4.04	-102.63	-108.89	89.10	134.13	126.26	7.87	17.034			
1,900.00	1,889.34	1,868.32	1,857.31	4.46	4.43	-104.44	-128.10	104.89	159.75	151.20	8.55	18.676			
2,000.00	1,986.79	1,964.78	1,950.21	4.86	4.88	-105.66	-148.14	121.36	185.91	176.62	9.29	20.021			
2,100.00	2,084.24	2,061.23	2,043.11	5.27	5.34	-106.57	-168.19	137.84	212.12	202.07	10.05	21.112			
2,200.00	2,181.69	2,157.69	2,136.01	5.70	5.81	-107.29	-188.23	154.31	238.37	227.54	10.83	22.002			
2,300.00	2,279.14	2,254.14	2,228.91	6.14	6.30	-107.86	-208.27	170.78	264.65	253.01	11.64	22.736			
2,400.00	2,376.59	2,350.60	2,321.81	6.58	6.80	-108.34	-228.32	187.26	290.95	278.49	12.46	23.346			
2,500.00	2,474.04	2,447.05	2,414.71	7.03	7.31	-108.73	-248.36	203.73	317.27	303.97	13.30	23.859			
2,600.00	2,571.49	2,543.50	2,507.61	7.48	7.82	-109.06	-268.40	220.20	343.59	329.45	14.14	24.294			
2,700.00	2,668.94	2,639.96	2,600.51	7.93	8.34	-109.35	-288.45	236.67	369.93	354.93	15.00	24.666			
2,800.00	2,766.39	2,736.41	2,693.41	8.39	8.86	-109.59	-308.49	253.15	396.28	380.42	15.86	24.988			
2,900.00	2,863.84	2,832.87	2,786.31	8.86	9.39	-109.81	-328.53	269.62	422.63	405.90	16.73	25.268			
3,000.00	2,961.29	2,929.32	2,879.21	9.32	9.92	-110.00	-348.58	286.09	448.98	431.38	17.60	25.514			
3,100.00	3,058.74	3,025.78	2,972.11	9.79	10.45	-110.17	-368.62	302.56	475.34	456.87	18.47	25.731			
3,200.00	3,156.19	3,122.23	3,065.01	10.26	10.98	-110.32	-388.66	319.04	501.70	482.35	19.35	25.924			
3,300.00	3,253.64	3,218.69	3,157.91	10.73	11.52	-110.46	-408.71	335.51	528.07	507.83	20.24	26.097			
3,400.00	3,351.09	3,315.14	3,250.81	11.20	12.05	-110.58	-428.75	351.98	554.44	533.32	21.12	26.252			
3,500.00	3,448.54	3,411.59	3,343.71	11.67	12.59	-110.70	-448.79	368.46	580.81	558.80	22.01	26.392			
3,600.00	3,545.99	3,508.05	3,436.61	12.15	13.13	-110.80	-468.84	384.93	607.18	584.28	22.90	26.519			
3,700.00	3,643.44	3,604.50	3,529.51	12.62	13.67	-110.89	-488.88	401.40	633.55	609.77	23.79	26.636			
3,800.00	3,740.89	3,700.96	3,622.40	13.10	14.21	-110.98	-508.93	417.87	659.93	635.25	24.68	26.742			
3,900.00	3,838.34	3,797.41	3,715.30	13.57	14.76	-111.06	-528.97	434.35	686.30	660.73	25.57	26.840			
4,000.00	3,935.79	3,893.87	3,808.20	14.05	15.30	-111.13	-549.01	450.82	712.68	686.22	26.46	26.931			
4,100.00	4,033.24	3,990.32	3,901.10	14.53	15.84	-111.20	-569.06	467.29	739.06	711.70	27.36	27.015			
4,200.00	4,130.69	4,086.78	3,994.00	15.00	16.39	-111.27	-589.10	483.76	765.44	737.19	28.25	27.093			
4,300.00	4,228.14	4,183.23	4,086.90	15.48	16.93	-111.33	-609.14	500.24	791.82	762.67	29.15	27.166			
4,400.00	4,325.59	4,279.68	4,179.80	15.96	17.48	-111.38	-629.19	516.71	818.20	788.16	30.04	27.234			
4,500.00	4,423.04	4,376.14	4,272.70	16.44	18.03	-111.43	-649.23	533.18	844.58	813.64	30.94	27.298			
4,600.00	4,520.49	4,472.59	4,365.60	16.92	18.57	-111.48	-669.27	549.66	870.97	839.13	31.84	27.358			
4,700.00	4,617.94	4,569.05	4,458.50	17.40	19.12	-111.53	-689.32	566.13	897.35	864.62	32.73	27.415			
4,800.00	4,715.39	4,665.50	4,551.40	17.88	19.67	-111.57	-709.36	582.60	923.73	890.10	33.63	27.469			
4,900.00	4,812.84	4,761.96	4,644.30	18.36	20.21	-111.62	-729.40	599.07	950.12	915.59	34.53	27.520			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,000.00	4,910.29	4,858.41	4,737.20	18.84	20.76	-111.65	-749.45	615.55	976.50	941.08	35.42	27.568		
5,100.00	5,007.74	4,954.86	4,830.10	19.32	21.31	-111.69	-769.49	632.02	1,002.89	966.57	36.32	27.614		
5,200.00	5,105.19	5,051.32	4,923.00	19.80	21.86	-111.73	-789.53	648.49	1,029.27	992.06	37.21	27.658		
5,300.00	5,202.64	5,147.77	5,015.90	20.28	22.41	-111.76	-809.58	664.96	1,055.66	1,017.55	38.11	27.700		
5,400.00	5,300.09	5,244.23	5,108.80	20.77	22.96	-111.79	-829.62	681.44	1,082.04	1,043.04	39.01	27.740		
5,500.00	5,397.54	5,340.68	5,201.70	21.25	23.50	-111.82	-849.66	697.91	1,108.43	1,068.53	39.90	27.779		
5,600.00	5,494.99	5,437.14	5,294.60	21.73	24.05	-111.85	-869.71	714.38	1,134.81	1,094.02	40.80	27.816		
5,700.00	5,592.44	5,533.59	5,387.50	22.21	24.60	-111.88	-889.75	730.86	1,161.20	1,119.51	41.69	27.851		
5,800.00	5,689.89	5,630.05	5,480.40	22.69	25.15	-111.90	-909.80	747.33	1,187.59	1,145.00	42.59	27.885		
5,900.00	5,787.34	5,726.50	5,573.30	23.18	25.70	-111.93	-929.84	763.80	1,213.98	1,170.49	43.48	27.919		
5,990.14	5,875.18	5,813.44	5,657.04	23.61	26.20	-111.95	-947.91	778.65	1,237.76	1,193.47	44.29	27.947		
6,000.00	5,884.79	5,822.96	5,666.20	23.65	26.25	-112.00	-949.88	780.27	1,240.36	1,195.97	44.38	27.947		
6,100.00	5,982.68	5,930.13	5,769.49	23.97	26.81	-112.42	-971.98	798.44	1,265.88	1,220.64	45.24	27.982		
6,200.00	6,081.23	6,068.02	5,903.55	24.26	27.33	-112.71	-996.84	818.87	1,287.88	1,241.86	46.02	27.985		
6,300.00	6,180.31	6,208.17	6,041.25	24.51	27.78	-112.94	-1,016.98	835.42	1,305.43	1,258.73	46.70	27.952		
6,400.00	6,279.79	6,350.12	6,181.83	24.72	28.14	-113.11	-1,032.04	847.80	1,318.45	1,271.17	47.27	27.890		
6,500.00	6,379.57	6,493.33	6,324.47	24.89	28.42	-113.23	-1,041.77	855.79	1,326.84	1,279.10	47.74	27.793		
6,600.00	6,479.52	6,637.26	6,468.28	25.03	28.62	-113.30	-1,045.99	859.26	1,330.56	1,282.46	48.10	27.665		
6,638.48	6,518.00	6,686.97	6,518.00	25.07	28.67	91.80	-1,046.17	859.41	1,330.77	1,282.56	48.21	27.603		
6,700.00	6,579.52	6,748.49	6,579.52	25.14	28.73	91.80	-1,046.17	859.41	1,330.77	1,282.42	48.35	27.523		
6,800.00	6,679.52	6,848.49	6,679.52	25.25	28.82	91.80	-1,046.17	859.41	1,330.77	1,282.20	48.57	27.401		
6,900.00	6,779.52	6,948.49	6,779.52	25.35	28.92	91.80	-1,046.17	859.41	1,330.77	1,281.98	48.78	27.279		
7,000.00	6,879.52	7,048.49	6,879.52	25.46	29.02	91.80	-1,046.17	859.41	1,330.77	1,281.76	49.01	27.156		
7,100.00	6,979.52	7,148.49	6,979.52	25.56	29.12	91.80	-1,046.17	859.41	1,330.77	1,281.54	49.23	27.032		
7,200.00	7,079.52	7,248.49	7,079.52	25.67	29.22	91.80	-1,046.17	859.41	1,330.77	1,281.31	49.46	26.908		
7,300.00	7,179.52	7,348.49	7,179.52	25.78	29.32	91.80	-1,046.17	859.41	1,330.77	1,281.08	49.69	26.783		
7,400.00	7,279.52	7,448.49	7,279.52	25.89	29.42	91.80	-1,046.17	859.41	1,330.77	1,280.85	49.92	26.658		
7,500.00	7,379.52	7,548.49	7,379.52	26.01	29.53	91.80	-1,046.17	859.41	1,330.77	1,280.61	50.16	26.532		
7,600.00	7,479.52	7,648.49	7,479.52	26.12	29.64	91.80	-1,046.17	859.41	1,330.77	1,280.37	50.40	26.406		
7,700.00	7,579.52	7,748.49	7,579.52	26.24	29.74	91.80	-1,046.17	859.41	1,330.77	1,280.13	50.64	26.280		
7,800.00	7,679.52	7,848.49	7,679.52	26.36	29.85	91.80	-1,046.17	859.41	1,330.77	1,279.88	50.88	26.153		
7,900.00	7,779.52	7,948.49	7,779.52	26.47	29.96	91.80	-1,046.17	859.41	1,330.77	1,279.64	51.13	26.026		
8,000.00	7,879.52	8,048.49	7,879.52	26.59	30.07	91.80	-1,046.17	859.41	1,330.77	1,279.39	51.38	25.899		
8,100.00	7,979.52	8,148.49	7,979.52	26.72	30.19	91.80	-1,046.17	859.41	1,330.77	1,279.13	51.64	25.772		
8,200.00	8,079.52	8,248.49	8,079.52	26.84	30.30	91.80	-1,046.17	859.41	1,330.77	1,278.88	51.89	25.645		
8,300.00	8,179.52	8,348.49	8,179.52	26.96	30.42	91.80	-1,046.17	859.41	1,330.77	1,278.62	52.15	25.518		
8,400.00	8,279.52	8,448.49	8,279.52	27.09	30.53	91.80	-1,046.17	859.41	1,330.77	1,278.36	52.41	25.391		
8,465.48	8,345.00	8,513.97	8,345.00	27.17	30.61	91.80	-1,046.17	859.41	1,330.77	1,278.18	52.58	25.308		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN #1 1-15-10	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			
0.00	0.00	0.00	0.00	0.00	0.00	141.18	-46.61	37.50	59.82						
100.00	100.00	100.00	100.00	0.10	0.10	141.18	-46.61	37.50	59.82	59.63	0.19	313.119			
200.00	200.00	200.00	200.00	0.32	0.32	141.18	-46.61	37.50	59.82	59.18	0.64	93.387			
300.00	300.00	300.00	300.00	0.55	0.55	141.18	-46.61	37.50	59.82	58.73	1.09	54.877			
400.00	400.00	400.00	400.00	0.77	0.77	141.18	-46.61	37.50	59.82	58.28	1.54	38.854			
500.00	500.00	500.00	500.00	0.99	0.99	141.18	-46.61	37.50	59.82	57.83	1.99	30.074			
600.00	600.00	600.00	600.00	1.22	1.22	141.18	-46.61	37.50	59.82	57.38	2.44	24.530			
700.00	700.00	700.00	700.00	1.44	1.44	141.18	-46.61	37.50	59.82	56.93	2.89	20.712			
800.00	800.00	800.00	800.00	1.67	1.67	141.18	-46.61	37.50	59.82	56.48	3.34	17.923			
900.00	900.00	900.00	900.00	1.89	1.89	141.18	-46.61	37.50	59.82	56.03	3.79	15.795			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	141.18	-46.61	37.50	59.82	55.59	4.24	14.119			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	141.18	-46.61	37.50	59.82	55.36	4.46	13.408	CC, ES		
1,100.00	1,100.00	1,099.04	1,099.04	2.33	2.33	-64.44	-46.82	37.86	60.03	55.37	4.66	12.883			
1,200.00	1,199.93	1,196.96	1,196.90	2.50	2.52	-68.38	-48.47	40.77	61.87	56.85	5.02	12.333			
1,300.00	1,299.68	1,294.40	1,294.11	2.69	2.71	-75.46	-51.76	46.55	66.37	60.98	5.39	12.313	SF		
1,400.00	1,399.13	1,391.06	1,390.25	2.90	2.92	-84.16	-56.63	55.12	74.77	68.98	5.79	12.920			
1,500.00	1,498.15	1,486.62	1,484.93	3.13	3.16	-92.78	-63.03	66.36	88.07	81.86	6.21	14.175			
1,600.00	1,596.63	1,580.82	1,577.78	3.40	3.42	-100.21	-70.85	80.12	106.73	100.05	6.68	15.986			
1,698.34	1,692.82	1,671.86	1,666.99	3.71	3.71	-106.00	-79.85	95.94	130.26	123.08	7.18	18.143			
1,700.00	1,694.44	1,673.38	1,668.48	3.72	3.71	-106.09	-80.01	96.22	130.70	123.52	7.19	18.182			
1,800.00	1,791.89	1,764.45	1,757.07	4.08	4.05	-110.52	-90.42	114.54	159.12	151.37	7.76	20.517			
1,900.00	1,889.34	1,854.17	1,843.65	4.46	4.43	-113.16	-102.04	134.97	190.79	182.43	8.36	22.813			
2,000.00	1,986.79	1,942.41	1,928.04	4.86	4.86	-114.66	-114.77	157.35	225.24	216.23	9.01	25.004			
2,100.00	2,084.24	2,029.03	2,010.09	5.27	5.33	-115.42	-128.51	181.51	262.20	252.51	9.69	27.068			
2,200.00	2,181.69	2,113.94	2,089.65	5.70	5.84	-115.71	-143.16	207.27	301.52	291.12	10.39	29.010			
2,300.00	2,279.14	2,200.00	2,169.36	6.14	6.41	-115.68	-159.19	235.46	343.11	331.97	11.14	30.808			
2,400.00	2,376.59	2,278.22	2,240.94	6.58	6.99	-115.46	-174.78	262.88	386.85	374.97	11.88	32.556			
2,500.00	2,474.04	2,360.41	2,315.24	7.03	7.64	-115.10	-192.15	293.42	432.65	419.98	12.66	34.164			
2,600.00	2,571.49	2,448.99	2,395.07	7.48	8.37	-114.74	-211.13	326.79	478.98	465.48	13.49	35.499			
2,700.00	2,668.94	2,537.58	2,474.90	7.93	9.11	-114.44	-230.11	360.17	525.32	510.99	14.33	36.656			
2,800.00	2,766.39	2,626.16	2,554.73	8.39	9.87	-114.19	-249.10	393.55	571.67	556.49	15.18	37.663			
2,900.00	2,863.84	2,714.74	2,634.55	8.86	10.63	-113.98	-268.08	426.93	618.02	601.99	16.03	38.545			
3,000.00	2,961.29	2,803.33	2,714.38	9.32	11.41	-113.79	-287.06	460.31	664.39	647.49	16.90	39.323			
3,100.00	3,058.74	2,891.91	2,794.21	9.79	12.18	-113.63	-306.04	493.69	710.76	692.99	17.76	40.012			
3,200.00	3,156.19	2,980.50	2,874.04	10.26	12.97	-113.49	-325.02	527.07	757.13	738.49	18.64	40.628			
3,300.00	3,253.64	3,069.08	2,953.87	10.73	13.75	-113.37	-344.01	560.45	803.50	783.99	19.51	41.182			
3,400.00	3,351.09	3,157.67	3,033.70	11.20	14.55	-113.26	-362.99	593.83	849.88	829.49	20.39	41.681			
3,500.00	3,448.54	3,246.25	3,113.53	11.67	15.34	-113.16	-381.97	627.20	896.26	874.99	21.27	42.135			
3,600.00	3,545.99	3,334.83	3,193.36	12.15	16.13	-113.07	-400.95	660.58	942.64	920.48	22.15	42.548			
3,700.00	3,643.44	3,423.42	3,273.19	12.62	16.93	-112.99	-419.94	693.96	989.02	965.98	23.04	42.926			
3,800.00	3,740.89	3,512.00	3,353.02	13.10	17.73	-112.92	-438.92	727.34	1,035.41	1,011.48	23.93	43.273			
3,900.00	3,838.34	3,600.59	3,432.85	13.57	18.53	-112.85	-457.90	760.72	1,081.79	1,056.98	24.82	43.593			
4,000.00	3,935.79	3,689.17	3,512.68	14.05	19.33	-112.79	-476.88	794.10	1,128.18	1,102.47	25.71	43.889			
4,100.00	4,033.24	3,777.76	3,592.50	14.53	20.14	-112.73	-495.86	827.48	1,174.57	1,147.97	26.60	44.164			
4,200.00	4,130.69	3,866.34	3,672.33	15.00	20.94	-112.68	-514.85	860.86	1,220.96	1,193.47	27.49	44.420			
4,300.00	4,228.14	3,954.92	3,752.16	15.48	21.75	-112.63	-533.83	894.24	1,267.34	1,238.97	28.38	44.659			
4,400.00	4,325.59	4,043.51	3,831.99	15.96	22.55	-112.59	-552.81	927.61	1,313.73	1,284.46	29.27	44.883			
4,500.00	4,423.04	4,132.09	3,911.82	16.44	23.36	-112.55	-571.79	960.99	1,360.12	1,329.96	30.16	45.094			
4,600.00	4,520.49	4,220.68	3,991.65	16.92	24.17	-112.51	-590.78	994.37	1,406.52	1,375.46	31.05	45.292			
4,700.00	4,617.94	4,309.26	4,071.48	17.40	24.98	-112.47	-609.76	1,027.75	1,452.91	1,420.96	31.95	45.478			
4,800.00	4,715.39	4,397.85	4,151.31	17.88	25.79	-112.44	-628.74	1,061.13	1,499.30	1,466.46	32.84	45.655			
4,900.00	4,812.84	4,486.43	4,231.14	18.36	26.60	-112.40	-647.72	1,094.51	1,545.69	1,511.96	33.73	45.822			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,910.29	4,575.01	4,310.97	18.84	27.41	-112.37	-666.70	1,127.89	1,592.08	1,557.46	34.62	45.981			
5,100.00	5,007.74	4,663.60	4,390.80	19.32	28.22	-112.34	-685.69	1,161.27	1,638.48	1,602.96	35.52	46.132			
5,200.00	5,105.19	4,752.18	4,470.63	19.80	29.03	-112.32	-704.67	1,194.65	1,684.87	1,648.46	36.41	46.276			
5,300.00	5,202.64	4,840.77	4,550.46	20.28	29.84	-112.29	-723.65	1,228.02	1,731.26	1,693.96	37.30	46.414			
5,400.00	5,300.09	4,929.35	4,630.28	20.77	30.65	-112.27	-742.63	1,261.40	1,777.66	1,739.47	38.19	46.545			
5,500.00	5,397.54	5,017.94	4,710.11	21.25	31.46	-112.24	-761.62	1,294.78	1,824.05	1,784.97	39.08	46.671			
5,600.00	5,494.99	5,106.52	4,789.94	21.73	32.27	-112.22	-780.60	1,328.16	1,870.45	1,830.47	39.97	46.792			
5,700.00	5,592.44	5,195.10	4,869.77	22.21	33.08	-112.20	-799.58	1,361.54	1,916.84	1,875.98	40.86	46.908			
5,800.00	5,689.89	5,283.69	4,949.60	22.69	33.90	-112.18	-818.56	1,394.92	1,963.24	1,921.48	41.75	47.019			
5,900.00	5,787.34	5,372.27	5,029.43	23.18	34.71	-112.16	-837.54	1,428.30	2,009.63	1,966.99	42.64	47.127			
5,990.14	5,875.18	5,452.12	5,101.39	23.61	35.44	-112.14	-854.65	1,458.39	2,051.45	2,008.01	43.44	47.220			
6,000.00	5,884.79	5,460.86	5,109.26	23.65	35.52	-112.24	-856.53	1,461.68	2,056.02	2,012.46	43.56	47.195			
6,100.00	5,982.68	5,549.77	5,189.39	23.97	36.34	-113.11	-875.58	1,495.18	2,101.71	2,057.02	44.69	47.031			
6,200.00	6,081.23	5,639.16	5,269.94	24.26	37.16	-113.85	-894.73	1,528.86	2,146.18	2,100.43	45.75	46.909			
6,300.00	6,180.31	5,728.90	5,350.81	24.51	37.98	-114.47	-913.96	1,562.68	2,189.41	2,142.66	46.75	46.831			
6,400.00	6,279.79	5,818.90	5,431.92	24.72	38.81	-114.98	-933.25	1,596.59	2,231.38	2,183.70	47.68	46.799			
6,500.00	6,379.57	5,909.04	5,513.15	24.89	39.64	-115.38	-952.57	1,630.56	2,272.09	2,223.55	48.53	46.814			
6,600.00	6,479.52	5,999.22	5,594.41	25.03	40.46	-115.69	-971.89	1,664.53	2,311.54	2,262.23	49.31	46.877			
6,638.48	6,518.00	6,033.90	5,625.67	25.07	40.78	89.33	-979.32	1,677.60	2,326.39	2,276.80	49.59	46.909			
6,700.00	6,579.52	6,089.34	5,675.63	25.14	41.29	89.65	-991.20	1,698.49	2,350.02	2,300.17	49.85	47.139			
6,800.00	6,679.52	6,179.46	5,756.84	25.25	42.12	90.16	-1,010.51	1,732.45	2,388.57	2,338.31	50.26	47.527			
6,900.00	6,779.52	6,269.58	5,838.05	25.35	42.95	90.65	-1,029.82	1,766.40	2,427.27	2,376.62	50.66	47.916			
7,000.00	6,879.52	6,359.69	5,919.26	25.46	43.78	91.13	-1,049.13	1,800.36	2,466.14	2,415.09	51.05	48.307			
7,100.00	6,979.52	6,424.18	6,161.11	25.56	45.74	92.37	-1,101.96	1,893.25	2,503.51	2,451.74	51.77	48.354			
7,200.00	7,079.52	7,087.08	6,604.16	25.67	47.98	93.76	-1,167.39	2,008.30	2,529.43	2,476.77	52.67	48.028			
7,300.00	7,179.52	7,583.79	7,096.51	25.78	49.11	94.36	-1,197.43	2,061.14	2,540.55	2,487.09	53.46	47.520			
7,400.00	7,279.52	7,766.82	7,279.52	25.89	49.25	94.38	-1,198.36	2,062.76	2,540.88	2,487.12	53.77	47.256			
7,500.00	7,379.52	7,866.82	7,379.52	26.01	49.32	94.38	-1,198.36	2,062.76	2,540.88	2,486.90	53.99	47.065			
7,600.00	7,479.52	7,966.82	7,479.52	26.12	49.39	94.38	-1,198.36	2,062.76	2,540.88	2,486.68	54.21	46.873			
7,700.00	7,579.52	8,066.82	7,579.52	26.24	49.46	94.38	-1,198.36	2,062.76	2,540.88	2,486.45	54.43	46.680			
7,800.00	7,679.52	8,166.82	7,679.52	26.36	49.52	94.38	-1,198.36	2,062.76	2,540.88	2,486.23	54.66	46.487			
7,900.00	7,779.52	8,266.82	7,779.52	26.47	49.60	94.38	-1,198.36	2,062.76	2,540.88	2,486.00	54.89	46.292			
8,000.00	7,879.52	8,366.82	7,879.52	26.59	49.67	94.38	-1,198.36	2,062.76	2,540.88	2,485.76	55.12	46.098			
8,100.00	7,979.52	8,466.82	7,979.52	26.72	49.74	94.38	-1,198.36	2,062.76	2,540.88	2,485.53	55.35	45.902			
8,200.00	8,079.52	8,566.82	8,079.52	26.84	49.81	94.38	-1,198.36	2,062.76	2,540.88	2,485.29	55.59	45.706			
8,300.00	8,179.52	8,666.82	8,179.52	26.96	49.89	94.38	-1,198.36	2,062.76	2,540.88	2,485.05	55.83	45.510			
8,400.00	8,279.52	8,766.82	8,279.52	27.09	49.96	94.38	-1,198.36	2,062.76	2,540.88	2,484.81	56.07	45.313			
8,465.48	8,345.00	8,832.30	8,345.00	27.17	50.01	94.38	-1,198.36	2,062.76	2,540.88	2,484.65	56.23	45.184			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN #1 1-15-10	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 Tooface (°)	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	140.74	-22.94	18.75	29.63						
100.00	100.00	100.00	100.00	0.10	0.10	140.74	-22.94	18.75	29.63	29.44	0.19	155.079			
200.00	200.00	200.00	200.00	0.32	0.32	140.74	-22.94	18.75	29.63	28.99	0.64	46.252			
300.00	300.00	300.00	300.00	0.55	0.55	140.74	-22.94	18.75	29.63	28.54	1.09	27.179			
400.00	400.00	400.00	400.00	0.77	0.77	140.74	-22.94	18.75	29.63	28.09	1.54	19.243			
500.00	500.00	500.00	500.00	0.99	0.99	140.74	-22.94	18.75	29.63	27.64	1.99	14.895			
600.00	600.00	600.00	600.00	1.22	1.22	140.74	-22.94	18.75	29.63	27.19	2.44	12.149			
700.00	700.00	700.00	700.00	1.44	1.44	140.74	-22.94	18.75	29.63	26.74	2.89	10.258			
800.00	800.00	800.00	800.00	1.67	1.67	140.74	-22.94	18.75	29.63	26.29	3.34	8.877			
900.00	900.00	900.00	900.00	1.89	1.89	140.74	-22.94	18.75	29.63	25.84	3.79	7.823			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	140.74	-22.94	18.75	29.63	25.39	4.24	6.993			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	140.74	-22.94	18.75	29.63	25.17	4.46	6.641	CC, ES		
1,100.00	1,100.00	1,099.50	1,099.49	2.33	2.33	-64.94	-23.32	18.94	29.86	25.20	4.66	6.412			
1,200.00	1,199.93	1,198.42	1,198.36	2.50	2.50	-69.14	-26.37	20.48	31.84	26.83	5.01	6.361	SF		
1,300.00	1,299.68	1,297.45	1,297.15	2.69	2.69	-76.17	-32.37	23.50	36.11	30.74	5.37	6.721			
1,400.00	1,399.13	1,397.09	1,396.50	2.90	2.89	-85.78	-39.24	26.96	41.24	35.47	5.77	7.146			
1,500.00	1,498.15	1,496.48	1,495.59	3.13	3.10	-97.23	-46.08	30.42	47.61	41.40	6.21	7.670			
1,600.00	1,596.63	1,595.49	1,594.31	3.40	3.32	-109.02	-52.90	33.85	56.48	49.81	6.67	8.464			
1,698.34	1,692.82	1,692.37	1,690.90	3.71	3.54	-119.65	-59.58	37.22	68.56	61.42	7.14	9.598			
1,700.00	1,694.44	1,694.00	1,692.52	3.72	3.54	-119.82	-59.69	37.28	68.80	61.65	7.15	9.620			
1,800.00	1,791.89	1,792.23	1,790.46	4.08	3.77	-128.25	-66.46	40.69	83.89	76.25	7.64	10.977			
1,900.00	1,889.34	1,890.46	1,888.39	4.46	4.00	-134.05	-73.22	44.10	100.22	92.08	8.14	12.316			
2,000.00	1,986.79	1,988.69	1,986.33	4.86	4.24	-138.21	-79.99	47.51	117.27	108.63	8.64	13.571			
2,100.00	2,084.24	2,086.92	2,084.27	5.27	4.48	-141.31	-86.76	50.92	134.77	125.62	9.15	14.727			
2,200.00	2,181.69	2,185.15	2,182.20	5.70	4.73	-143.69	-93.52	54.33	152.56	142.90	9.67	15.782			
2,300.00	2,279.14	2,283.37	2,280.14	6.14	4.97	-145.57	-100.29	57.75	170.56	160.37	10.19	16.742			
2,400.00	2,376.59	2,381.60	2,378.07	6.58	5.22	-147.09	-107.06	61.16	188.70	177.99	10.71	17.616			
2,500.00	2,474.04	2,479.83	2,476.01	7.03	5.47	-148.35	-113.82	64.57	206.95	195.71	11.24	18.411			
2,600.00	2,571.49	2,578.06	2,573.94	7.48	5.72	-149.40	-120.59	67.98	225.28	213.51	11.77	19.137			
2,700.00	2,668.94	2,676.29	2,671.88	7.93	5.97	-150.29	-127.36	71.39	243.67	231.37	12.31	19.801			
2,800.00	2,766.39	2,774.52	2,769.82	8.39	6.23	-151.06	-134.12	74.80	262.11	249.27	12.84	20.409			
2,900.00	2,863.84	2,872.74	2,867.75	8.86	6.48	-151.73	-140.89	78.22	280.59	267.21	13.38	20.969			
3,000.00	2,961.29	2,970.97	2,965.69	9.32	6.74	-152.31	-147.66	81.63	299.11	285.18	13.92	21.484			
3,100.00	3,058.74	3,069.20	3,063.62	9.79	7.00	-152.83	-154.42	85.04	317.65	303.18	14.46	21.960			
3,200.00	3,156.19	3,167.43	3,161.56	10.26	7.25	-153.29	-161.19	88.45	336.21	321.20	15.01	22.401			
3,300.00	3,253.64	3,265.66	3,259.49	10.73	7.51	-153.70	-167.96	91.86	354.79	339.23	15.55	22.810			
3,400.00	3,351.09	3,363.89	3,357.43	11.20	7.77	-154.07	-174.72	95.27	373.38	357.28	16.10	23.191			
3,500.00	3,448.54	3,462.12	3,455.37	11.67	8.03	-154.41	-181.49	98.69	391.99	375.35	16.65	23.546			
3,600.00	3,545.99	3,560.34	3,553.30	12.15	8.29	-154.71	-188.26	102.10	410.61	393.42	17.20	23.878			
3,700.00	3,643.44	3,658.57	3,651.24	12.62	8.55	-154.99	-195.02	105.51	429.25	411.50	17.75	24.188			
3,800.00	3,740.89	3,756.80	3,749.17	13.10	8.81	-155.24	-201.79	108.92	447.89	429.59	18.30	24.480			
3,900.00	3,838.34	3,855.03	3,847.11	13.57	9.07	-155.48	-208.56	112.33	466.54	447.69	18.85	24.753			
4,000.00	3,935.79	3,953.26	3,945.04	14.05	9.33	-155.70	-215.32	115.74	485.19	465.79	19.40	25.011			
4,100.00	4,033.24	4,051.49	4,042.98	14.53	9.59	-155.90	-222.09	119.16	503.85	483.90	19.95	25.254			
4,200.00	4,130.69	4,149.71	4,140.92	15.00	9.86	-156.08	-228.86	122.57	522.52	502.02	20.50	25.483			
4,300.00	4,228.14	4,247.94	4,238.85	15.48	10.12	-156.26	-235.62	125.98	541.19	520.14	21.06	25.700			
4,400.00	4,325.59	4,346.17	4,336.79	15.96	10.38	-156.42	-242.39	129.39	559.87	538.26	21.61	25.906			
4,500.00	4,423.04	4,444.40	4,434.72	16.44	10.64	-156.57	-249.16	132.80	578.55	556.38	22.17	26.101			
4,600.00	4,520.49	4,542.63	4,532.66	16.92	10.91	-156.71	-255.92	136.21	597.24	574.51	22.72	26.286			
4,700.00	4,617.94	4,640.86	4,630.59	17.40	11.17	-156.85	-262.69	139.63	615.92	592.65	23.28	26.461			
4,800.00	4,715.39	4,739.09	4,728.53	17.88	11.43	-156.97	-269.46	143.04	634.61	610.78	23.83	26.629			
4,900.00	4,812.84	4,837.31	4,826.47	18.36	11.69	-157.09	-276.23	146.45	653.31	628.92	24.39	26.788			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,910.29	4,935.54	4,924.40	18.84	11.96	-157.20	-282.99	149.86	672.00	647.06	24.94	26.940			
5,100.00	5,007.74	5,033.77	5,022.34	19.32	12.22	-157.31	-289.76	153.27	690.70	665.20	25.50	27.086			
5,200.00	5,105.19	5,132.00	5,120.27	19.80	12.49	-157.41	-296.53	156.68	709.40	683.35	26.06	27.225			
5,300.00	5,202.64	5,230.23	5,218.21	20.28	12.75	-157.50	-303.29	160.10	728.11	701.49	26.61	27.357			
5,400.00	5,300.09	5,328.46	5,316.14	20.77	13.01	-157.59	-310.06	163.51	746.81	719.64	27.17	27.485			
5,500.00	5,397.54	5,426.69	5,414.08	21.25	13.28	-157.68	-316.83	166.92	765.52	737.79	27.73	27.607			
5,600.00	5,494.99	5,524.91	5,512.02	21.73	13.54	-157.76	-323.59	170.33	784.22	755.94	28.29	27.724			
5,700.00	5,592.44	5,623.14	5,609.95	22.21	13.81	-157.84	-330.36	173.74	802.93	774.09	28.85	27.836			
5,800.00	5,689.89	5,721.37	5,707.89	22.69	14.07	-157.91	-337.13	177.15	821.64	792.24	29.40	27.944			
5,900.00	5,787.34	5,819.60	5,805.82	23.18	14.33	-157.99	-343.89	180.57	840.36	810.39	29.96	28.048			
5,990.14	5,875.18	5,908.14	5,894.10	23.61	14.57	-158.05	-349.99	183.64	857.22	826.76	30.47	28.138			
6,000.00	5,884.79	5,917.83	5,903.76	23.65	14.60	-158.07	-350.66	183.98	859.05	828.53	30.52	28.143			
6,100.00	5,982.68	6,016.40	6,002.04	23.97	14.86	-158.21	-357.45	187.40	875.86	844.77	31.09	28.172			
6,200.00	6,081.23	6,115.46	6,100.81	24.26	15.13	-158.24	-364.27	190.84	889.46	857.83	31.63	28.121			
6,300.00	6,180.31	6,214.89	6,199.93	24.51	15.40	-158.16	-371.12	194.29	899.85	867.71	32.14	27.994			
6,400.00	6,279.79	6,311.23	6,295.99	24.72	15.66	-157.99	-377.76	197.64	907.03	874.41	32.62	27.805			
6,500.00	6,379.57	6,406.06	6,390.64	24.89	15.87	-157.83	-382.89	200.23	911.45	878.45	33.01	27.615			
6,600.00	6,479.52	6,500.00	6,484.54	25.03	16.03	-157.75	-385.22	201.40	913.54	880.26	33.28	27.447			
6,638.48	6,518.00	6,533.46	6,518.00	25.07	16.09	47.36	-385.38	201.48	913.72	880.34	33.38	27.376			
6,700.00	6,579.52	6,594.98	6,579.52	25.14	16.20	47.36	-385.38	201.48	913.72	880.13	33.59	27.206			
6,800.00	6,679.52	6,694.98	6,679.52	25.25	16.36	47.36	-385.38	201.48	913.72	879.82	33.90	26.955			
6,900.00	6,779.52	6,794.98	6,779.52	25.35	16.53	47.36	-385.38	201.48	913.72	879.51	34.21	26.707			
7,000.00	6,879.52	6,894.98	6,879.52	25.46	16.69	47.36	-385.38	201.48	913.72	879.19	34.53	26.462			
7,100.00	6,979.52	6,994.98	6,979.52	25.56	16.85	47.36	-385.38	201.48	913.72	878.87	34.85	26.218			
7,200.00	7,079.52	7,094.98	7,079.52	25.67	17.02	47.36	-385.38	201.48	913.72	878.54	35.17	25.977			
7,300.00	7,179.52	7,194.98	7,179.52	25.78	17.19	47.36	-385.38	201.48	913.72	878.22	35.50	25.738			
7,400.00	7,279.52	7,294.98	7,279.52	25.89	17.36	47.36	-385.38	201.48	913.72	877.89	35.83	25.502			
7,500.00	7,379.52	7,394.98	7,379.52	26.01	17.53	47.36	-385.38	201.48	913.72	877.56	36.16	25.269			
7,600.00	7,479.52	7,494.98	7,479.52	26.12	17.70	47.36	-385.38	201.48	913.72	877.22	36.49	25.037			
7,700.00	7,579.52	7,594.98	7,579.52	26.24	17.87	47.36	-385.38	201.48	913.72	876.89	36.83	24.809			
7,800.00	7,679.52	7,694.98	7,679.52	26.36	18.05	47.36	-385.38	201.48	913.72	876.55	37.17	24.583			
7,900.00	7,779.52	7,794.98	7,779.52	26.47	18.22	47.36	-385.38	201.48	913.72	876.21	37.51	24.359			
8,000.00	7,879.52	7,894.98	7,879.52	26.59	18.40	47.36	-385.38	201.48	913.72	875.86	37.85	24.138			
8,100.00	7,979.52	7,994.98	7,979.52	26.72	18.58	47.36	-385.38	201.48	913.72	875.52	38.20	23.920			
8,200.00	8,079.52	8,094.98	8,079.52	26.84	18.75	47.36	-385.38	201.48	913.72	875.17	38.55	23.704			
8,300.00	8,179.52	8,194.98	8,179.52	26.96	18.93	47.36	-385.38	201.48	913.72	874.82	38.90	23.491			
8,400.00	8,279.52	8,294.98	8,279.52	27.09	19.11	47.36	-385.38	201.48	913.72	874.47	39.25	23.280			
8,465.48	8,345.00	8,360.46	8,345.00	27.17	19.23	47.36	-385.38	201.48	913.72	874.24	39.48	23.144			



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 22-3 - P_KERR-MCGEE 22-3 - PLAN #1 1-15-10	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 Tooface (°)	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	-38.78	23.68	-19.03	30.38						
100.00	100.00	100.00	100.00	0.10	0.10	-38.78	23.68	-19.03	30.38	30.19	0.19	159.015			
200.00	200.00	200.00	200.00	0.32	0.32	-38.78	23.68	-19.03	30.38	29.74	0.64	47.425			
300.00	300.00	300.00	300.00	0.55	0.55	-38.78	23.68	-19.03	30.38	29.29	1.09	27.869			
400.00	400.00	400.00	400.00	0.77	0.77	-38.78	23.68	-19.03	30.38	28.84	1.54	19.732			
500.00	500.00	500.00	500.00	0.99	0.99	-38.78	23.68	-19.03	30.38	28.39	1.99	15.273			
600.00	600.00	600.00	600.00	1.22	1.22	-38.78	23.68	-19.03	30.38	27.94	2.44	12.457			
700.00	700.00	700.00	700.00	1.44	1.44	-38.78	23.68	-19.03	30.38	27.49	2.89	10.518			
800.00	800.00	800.00	800.00	1.67	1.67	-38.78	23.68	-19.03	30.38	27.04	3.34	9.102			
900.00	900.00	900.00	900.00	1.89	1.89	-38.78	23.68	-19.03	30.38	26.59	3.79	8.022			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-38.78	23.68	-19.03	30.38	26.14	4.24	7.170			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-38.78	23.68	-19.03	30.38	25.92	4.46	6.809	CC, ES		
1,100.00	1,100.00	1,099.71	1,099.70	2.33	2.34	117.50	24.09	-18.89	30.81	26.14	4.67	6.596	SF		
1,200.00	1,199.93	1,198.76	1,198.69	2.50	2.56	127.25	27.33	-17.75	34.84	29.78	5.07	6.879			
1,300.00	1,299.68	1,296.75	1,296.44	2.69	2.78	140.51	33.71	-15.52	45.04	39.57	5.46	8.246			
1,400.00	1,399.13	1,392.99	1,392.17	2.90	3.01	151.40	43.04	-12.26	62.84	56.99	5.85	10.738			
1,500.00	1,498.15	1,486.87	1,485.18	3.13	3.25	158.71	55.06	-8.05	88.23	82.00	6.23	14.155			
1,600.00	1,596.63	1,577.82	1,574.84	3.40	3.50	163.39	69.45	-3.02	120.67	114.07	6.60	18.274			
1,698.34	1,692.82	1,668.56	1,664.03	3.71	3.77	166.48	85.19	2.49	157.65	150.68	6.97	22.621			
1,700.00	1,694.44	1,670.08	1,665.53	3.72	3.78	166.52	85.46	2.58	158.31	151.33	6.98	22.692			
1,800.00	1,791.89	1,761.77	1,755.65	4.08	4.07	168.68	101.37	8.15	197.75	190.35	7.40	26.723			
1,900.00	1,889.34	1,853.45	1,845.77	4.46	4.37	170.13	117.28	13.72	237.36	229.52	7.83	30.302			
2,000.00	1,986.79	1,945.14	1,935.90	4.86	4.69	171.16	133.19	19.28	277.05	268.78	8.27	33.488			
2,100.00	2,084.24	2,036.82	2,026.02	5.27	5.01	171.94	149.10	24.85	316.81	308.09	8.72	36.332			
2,200.00	2,181.69	2,128.51	2,116.14	5.70	5.33	172.54	165.01	30.42	356.60	347.43	9.17	38.881			
2,300.00	2,279.14	2,220.19	2,206.26	6.14	5.67	173.02	180.92	35.98	396.42	386.79	9.63	41.174			
2,400.00	2,376.59	2,311.88	2,296.39	6.58	6.01	173.41	196.83	41.55	436.25	426.16	10.09	43.245			
2,500.00	2,474.04	2,403.56	2,386.51	7.03	6.35	173.74	212.74	47.11	476.10	465.55	10.55	45.122			
2,600.00	2,571.49	2,495.25	2,476.63	7.48	6.69	174.02	228.65	52.68	515.97	504.95	11.02	46.830			
2,700.00	2,668.94	2,586.93	2,566.75	7.93	7.04	174.25	244.56	58.25	555.84	544.35	11.49	48.388			
2,800.00	2,766.39	2,678.62	2,656.88	8.39	7.39	174.46	260.47	63.81	595.72	583.76	11.96	49.816			
2,900.00	2,863.84	2,770.31	2,747.00	8.86	7.74	174.64	276.38	69.38	635.60	623.17	12.43	51.128			
3,000.00	2,961.29	2,861.99	2,837.12	9.32	8.09	174.80	292.29	74.95	675.49	662.58	12.91	52.337			
3,100.00	3,058.74	2,953.68	2,927.24	9.79	8.45	174.94	308.20	80.51	715.38	702.00	13.38	53.455			
3,200.00	3,156.19	3,045.36	3,017.37	10.26	8.81	175.06	324.11	86.08	755.27	741.41	13.86	54.490			
3,300.00	3,253.64	3,137.05	3,107.49	10.73	9.16	175.18	340.02	91.64	795.17	780.83	14.34	55.452			
3,400.00	3,351.09	3,228.73	3,197.61	11.20	9.52	175.28	355.93	97.21	835.07	820.25	14.82	56.348			
3,500.00	3,448.54	3,320.42	3,287.73	11.67	9.88	175.37	371.84	102.78	874.98	859.67	15.30	57.183			
3,600.00	3,545.99	3,412.10	3,377.86	12.15	10.24	175.46	387.75	108.34	914.88	899.10	15.78	57.965			
3,700.00	3,643.44	3,503.79	3,467.98	12.62	10.60	175.53	403.66	113.91	954.79	938.52	16.27	58.697			
3,800.00	3,740.89	3,595.47	3,558.10	13.10	10.97	175.61	419.57	119.48	994.69	977.94	16.75	59.384			
3,900.00	3,838.34	3,687.16	3,648.22	13.57	11.33	175.67	435.48	125.04	1,034.60	1,017.37	17.23	60.030			
4,000.00	3,935.79	3,778.84	3,738.35	14.05	11.69	175.73	451.39	130.61	1,074.51	1,056.79	17.72	60.639			
4,100.00	4,033.24	3,870.53	3,828.47	14.53	12.05	175.79	467.30	136.18	1,114.42	1,096.22	18.21	61.213			
4,200.00	4,130.69	3,962.21	3,918.59	15.00	12.42	175.84	483.21	141.74	1,154.33	1,135.64	18.69	61.756			
4,300.00	4,228.14	4,053.90	4,008.71	15.48	12.78	175.89	499.12	147.31	1,194.24	1,175.07	19.18	62.270			
4,400.00	4,325.59	4,145.58	4,098.84	15.96	13.15	175.94	515.03	152.87	1,234.16	1,214.49	19.67	62.757			
4,500.00	4,423.04	4,237.27	4,188.96	16.44	13.51	175.98	530.94	158.44	1,274.07	1,253.92	20.15	63.219			
4,600.00	4,520.49	4,328.95	4,279.08	16.92	13.88	176.02	546.85	164.01	1,313.98	1,293.34	20.64	63.658			
4,700.00	4,617.94	4,420.64	4,369.20	17.40	14.24	176.06	562.76	169.57	1,353.90	1,332.77	21.13	64.075			
4,800.00	4,715.39	4,512.32	4,459.33	17.88	14.61	176.10	578.67	175.14	1,393.81	1,372.20	21.62	64.473			
4,900.00	4,812.84	4,604.01	4,549.45	18.36	14.98	176.13	594.58	180.71	1,433.73	1,411.62	22.11	64.852			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 22-3 - P_KERR-MCGEE 22-3 - PLAN #1 1-15-10	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	4,910.29	4,695.69	4,639.57	18.84	15.34	176.16	610.49	186.27	1,473.64	1,451.05	22.60	65.214		
5,100.00	5,007.74	4,787.38	4,729.69	19.32	15.71	176.19	626.40	191.84	1,513.56	1,490.47	23.09	65.560		
5,200.00	5,105.19	4,879.06	4,819.81	19.80	16.08	176.22	642.31	197.40	1,553.48	1,529.90	23.58	65.891		
5,300.00	5,202.64	4,970.75	4,909.94	20.28	16.44	176.25	658.22	202.97	1,593.39	1,569.33	24.07	66.207		
5,400.00	5,300.09	5,062.43	5,000.06	20.77	16.81	176.28	674.13	208.54	1,633.31	1,608.75	24.56	66.511		
5,500.00	5,397.54	5,154.12	5,090.18	21.25	17.18	176.30	690.04	214.10	1,673.23	1,648.18	25.05	66.801		
5,600.00	5,494.99	5,245.80	5,180.30	21.73	17.55	176.32	705.95	219.67	1,713.15	1,687.61	25.54	67.081		
5,700.00	5,592.44	5,337.49	5,270.43	22.21	17.91	176.35	721.86	225.24	1,753.06	1,727.03	26.03	67.349		
5,800.00	5,689.89	5,429.17	5,360.55	22.69	18.28	176.37	737.77	230.80	1,792.98	1,766.46	26.52	67.607		
5,900.00	5,787.34	5,520.86	5,450.67	23.18	18.65	176.39	753.68	236.37	1,832.90	1,805.89	27.01	67.855		
5,990.14	5,875.18	5,603.50	5,531.91	23.61	18.98	176.41	768.02	241.39	1,868.88	1,841.43	27.46	68.070		
6,000.00	5,884.79	5,612.55	5,540.80	23.65	19.02	176.41	769.59	241.93	1,872.80	1,845.28	27.52	68.053		
6,100.00	5,982.68	5,705.05	5,631.72	23.97	19.39	176.48	785.64	247.55	1,910.80	1,882.66	28.14	67.905		
6,200.00	6,081.23	5,798.81	5,723.88	24.26	19.77	176.53	801.91	253.24	1,945.55	1,916.83	28.72	67.731		
6,300.00	6,180.31	5,893.72	5,817.18	24.51	20.15	176.57	818.39	259.01	1,977.01	1,947.74	29.27	67.537		
6,400.00	6,279.79	5,989.68	5,911.50	24.72	20.54	176.60	835.04	264.83	2,005.15	1,975.37	29.78	67.324		
6,500.00	6,379.57	6,131.90	6,051.43	24.89	21.06	176.62	859.05	273.23	2,029.72	1,999.38	30.34	66.894		
6,600.00	6,479.52	6,474.07	6,391.58	25.03	21.85	176.61	892.18	284.82	2,043.06	2,011.91	31.15	65.578		
6,638.48	6,518.00	6,600.52	6,518.00	25.07	22.03	21.72	894.69	285.70	2,044.08	2,012.66	31.43	65.046		
6,700.00	6,579.52	6,662.04	6,579.52	25.14	22.12	21.72	894.69	285.70	2,044.08	2,012.43	31.66	64.569		
6,800.00	6,679.52	6,762.04	6,679.52	25.25	22.26	21.72	894.69	285.70	2,044.08	2,012.06	32.03	63.827		
6,900.00	6,779.52	6,862.04	6,779.52	25.35	22.40	21.72	894.69	285.70	2,044.08	2,011.69	32.40	63.098		
7,000.00	6,879.52	6,962.04	6,879.52	25.46	22.54	21.72	894.69	285.70	2,044.08	2,011.32	32.77	62.382		
7,100.00	6,979.52	7,062.04	6,979.52	25.56	22.69	21.72	894.69	285.70	2,044.08	2,010.94	33.14	61.679		
7,200.00	7,079.52	7,162.04	7,079.52	25.67	22.83	21.72	894.69	285.70	2,044.08	2,010.57	33.52	60.988		
7,300.00	7,179.52	7,262.04	7,179.52	25.78	22.98	21.72	894.69	285.70	2,044.08	2,010.19	33.89	60.309		
7,400.00	7,279.52	7,362.04	7,279.52	25.89	23.13	21.72	894.69	285.70	2,044.08	2,009.81	34.27	59.642		
7,500.00	7,379.52	7,462.04	7,379.52	26.01	23.28	21.72	894.69	285.70	2,044.08	2,009.43	34.65	58.987		
7,600.00	7,479.52	7,562.04	7,479.52	26.12	23.43	21.72	894.69	285.70	2,044.08	2,009.05	35.04	58.343		
7,700.00	7,579.52	7,662.04	7,579.52	26.24	23.58	21.72	894.69	285.70	2,044.08	2,008.66	35.42	57.711		
7,800.00	7,679.52	7,762.04	7,679.52	26.36	23.74	21.72	894.69	285.70	2,044.08	2,008.28	35.80	57.090		
7,900.00	7,779.52	7,862.04	7,779.52	26.47	23.89	21.72	894.69	285.70	2,044.08	2,007.89	36.19	56.480		
8,000.00	7,879.52	7,962.04	7,879.52	26.59	24.05	21.72	894.69	285.70	2,044.08	2,007.50	36.58	55.881		
8,065.09	7,944.61	8,027.13	7,944.61	26.67	24.15	21.72	894.69	285.70	2,044.08	2,007.25	36.83	55.496		
8,100.00	7,979.52	8,057.52	7,975.00	26.72	24.20	21.72	894.69	285.70	2,044.09	2,007.13	36.96	55.306		
8,200.00	8,079.52	8,057.52	7,975.00	26.84	24.20	21.72	894.69	285.70	2,046.75	2,009.61	37.14	55.106		
8,300.00	8,179.52	8,057.52	7,975.00	26.96	24.20	21.72	894.69	285.70	2,054.29	2,016.96	37.33	55.037		
8,400.00	8,279.52	8,057.52	7,975.00	27.09	24.20	21.72	894.69	285.70	2,066.64	2,029.13	37.51	55.096		
8,465.48	8,345.00	8,057.52	7,975.00	27.17	24.20	21.72	894.69	285.70	2,077.30	2,039.67	37.63	55.202		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft		
Survey Program: 0-MWD												Offset Well Error:		0.00 ft	
Reference				Offset			Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	141.18	-30.96	24.91	39.73						
100.00	100.00	100.00	100.00	0.10	0.10	141.18	-30.96	24.91	39.73	39.54	0.19	207.956			
200.00	200.00	200.00	200.00	0.32	0.32	141.18	-30.96	24.91	39.73	39.09	0.64	62.022			
300.00	300.00	300.00	300.00	0.55	0.55	141.18	-30.96	24.91	39.73	38.64	1.09	36.446			
400.00	400.00	400.00	400.00	0.77	0.77	141.18	-30.96	24.91	39.73	38.19	1.54	25.805			
500.00	500.00	500.00	500.00	0.99	0.99	141.18	-30.96	24.91	39.73	37.74	1.99	19.973			
600.00	600.00	600.00	600.00	1.22	1.22	141.18	-30.96	24.91	39.73	37.29	2.44	16.292			
700.00	700.00	700.00	700.00	1.44	1.44	141.18	-30.96	24.91	39.73	36.84	2.89	13.756			
800.00	800.00	800.00	800.00	1.67	1.67	141.18	-30.96	24.91	39.73	36.39	3.34	11.903			
900.00	900.00	900.00	900.00	1.89	1.89	141.18	-30.96	24.91	39.73	35.94	3.79	10.490			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	141.18	-30.96	24.91	39.73	35.49	4.24	9.377			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	141.18	-30.96	24.91	39.73	35.27	4.46	8.905	CC		
1,100.00	1,100.00	1,099.46	1,099.46	2.33	2.33	-64.88	-31.04	25.32	39.88	35.21	4.66	8.552	ES		
1,200.00	1,199.93	1,198.17	1,198.10	2.50	2.53	-72.11	-31.73	28.66	41.43	36.40	5.03	8.238	SF		
1,300.00	1,299.68	1,296.22	1,295.91	2.69	2.73	-84.52	-33.09	35.26	46.31	40.90	5.41	8.558			
1,400.00	1,399.13	1,393.19	1,392.37	2.90	2.95	-97.96	-35.11	45.01	56.73	50.92	5.81	9.765			
1,500.00	1,498.15	1,488.69	1,486.98	3.13	3.19	-109.02	-37.73	57.74	73.79	67.56	6.23	11.851			
1,600.00	1,596.63	1,582.35	1,579.29	3.40	3.45	-116.92	-40.92	73.21	97.34	90.67	6.66	14.605			
1,698.34	1,692.82	1,672.33	1,667.45	3.71	3.75	-122.21	-44.56	90.85	126.32	119.20	7.12	17.731			
1,700.00	1,694.44	1,673.83	1,668.91	3.72	3.75	-122.29	-44.63	91.16	126.85	119.72	7.13	17.786			
1,800.00	1,791.89	1,763.31	1,755.96	4.08	4.08	-126.00	-48.81	111.43	160.85	153.20	7.65	21.035			
1,900.00	1,889.34	1,851.08	1,840.68	4.46	4.45	-128.03	-53.45	133.88	197.83	189.63	8.20	24.132			
2,000.00	1,986.79	1,937.03	1,922.93	4.86	4.86	-129.10	-58.49	158.33	237.44	228.66	8.78	27.047			
2,100.00	2,084.24	2,021.07	2,002.58	5.27	5.31	-129.59	-63.91	184.55	279.49	270.10	9.38	29.782			
2,200.00	2,181.69	2,108.30	2,084.59	5.70	5.82	-129.78	-69.91	213.65	323.38	313.35	10.03	32.244			
2,300.00	2,279.14	2,198.08	2,168.95	6.14	6.37	-129.91	-76.12	243.74	367.42	356.72	10.70	34.335			
2,400.00	2,376.59	2,287.86	2,253.30	6.58	6.94	-130.02	-82.33	273.84	411.46	400.07	11.39	36.130			
2,500.00	2,474.04	2,377.63	2,337.66	7.03	7.52	-130.11	-88.54	303.93	455.50	443.41	12.09	37.683			
2,600.00	2,571.49	2,467.41	2,422.02	7.48	8.11	-130.18	-94.76	334.02	499.54	486.74	12.80	39.034			
2,700.00	2,668.94	2,557.19	2,506.37	7.93	8.71	-130.24	-100.97	364.12	543.58	530.07	13.52	40.219			
2,800.00	2,766.39	2,646.97	2,590.73	8.39	9.32	-130.29	-107.18	394.21	587.62	573.38	14.24	41.264			
2,900.00	2,863.84	2,736.74	2,675.08	8.86	9.93	-130.33	-113.39	424.31	631.67	616.69	14.97	42.191			
3,000.00	2,961.29	2,826.52	2,759.44	9.32	10.55	-130.37	-119.60	454.40	675.71	660.00	15.71	43.018			
3,100.00	3,058.74	2,916.30	2,843.79	9.79	11.17	-130.40	-125.81	484.49	719.75	703.30	16.45	43.760			
3,200.00	3,156.19	3,006.08	2,928.15	10.26	11.79	-130.43	-132.02	514.59	763.80	746.60	17.19	44.429			
3,300.00	3,253.64	3,095.86	3,012.51	10.73	12.41	-130.46	-138.23	544.68	807.84	789.90	17.94	45.035			
3,400.00	3,351.09	3,185.63	3,096.86	11.20	13.04	-130.48	-144.45	574.77	851.88	833.20	18.69	45.586			
3,500.00	3,448.54	3,275.41	3,181.22	11.67	13.67	-130.50	-150.66	604.87	895.93	876.49	19.44	46.090			
3,600.00	3,545.99	3,365.19	3,265.57	12.15	14.30	-130.52	-156.87	634.96	939.97	919.78	20.19	46.552			
3,700.00	3,643.44	3,454.97	3,349.93	12.62	14.93	-130.54	-163.08	665.05	984.01	963.07	20.95	46.978			
3,800.00	3,740.89	3,544.75	3,434.28	13.10	15.56	-130.55	-169.29	695.15	1,028.06	1,006.36	21.70	47.371			
3,900.00	3,838.34	3,634.52	3,518.64	13.57	16.20	-130.57	-175.50	725.24	1,072.10	1,049.64	22.46	47.736			
4,000.00	3,935.79	3,724.30	3,602.99	14.05	16.83	-130.58	-181.71	755.34	1,116.15	1,092.93	23.22	48.076			
4,100.00	4,033.24	3,814.08	3,687.35	14.53	17.47	-130.59	-187.92	785.43	1,160.19	1,136.22	23.97	48.392			
4,200.00	4,130.69	3,903.86	3,771.71	15.00	18.11	-130.60	-194.14	815.52	1,204.23	1,179.50	24.73	48.688			
4,300.00	4,228.14	3,993.64	3,856.06	15.48	18.74	-130.61	-200.35	845.62	1,248.28	1,222.79	25.49	48.966			
4,400.00	4,325.59	4,083.41	3,940.42	15.96	19.38	-130.62	-206.56	875.71	1,292.32	1,266.07	26.25	49.227			
4,500.00	4,423.04	4,173.19	4,024.77	16.44	20.02	-130.63	-212.77	905.80	1,336.37	1,309.35	27.01	49.473			
4,600.00	4,520.49	4,262.97	4,109.13	16.92	20.66	-130.64	-218.98	935.90	1,380.41	1,352.64	27.77	49.706			
4,700.00	4,617.94	4,352.75	4,193.48	17.40	21.30	-130.65	-225.19	965.99	1,424.45	1,395.92	28.53	49.926			
4,800.00	4,715.39	4,442.53	4,277.84	17.88	21.94	-130.66	-231.40	996.09	1,468.50	1,439.21	29.29	50.135			
4,900.00	4,812.84	4,532.30	4,362.19	18.36	22.58	-130.67	-237.61	1,026.18	1,512.54	1,482.49	30.05	50.333			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,000.00	4,910.29	4,622.08	4,446.55	18.84	23.22	-130.67	-243.82	1,056.27	1,556.59	1,525.78	30.81	50.522		
5,100.00	5,007.74	4,711.86	4,530.91	19.32	23.86	-130.68	-250.04	1,086.37	1,600.63	1,569.05	31.58	50.679		
5,200.00	5,105.19	4,801.64	4,615.26	19.80	24.51	-130.68	-256.25	1,116.46	1,644.68	1,612.32	32.36	50.828		
5,300.00	5,202.64	4,891.41	4,699.62	20.28	25.15	-130.69	-262.46	1,146.55	1,688.72	1,655.59	33.13	50.970		
5,400.00	5,300.09	4,981.19	4,783.97	20.77	25.79	-130.70	-268.67	1,176.65	1,732.76	1,698.86	33.91	51.104		
5,500.00	5,397.54	5,070.97	4,868.33	21.25	26.43	-130.70	-274.88	1,206.74	1,776.81	1,742.13	34.68	51.231		
5,600.00	5,494.99	5,160.75	4,952.68	21.73	27.08	-130.71	-281.09	1,236.84	1,820.85	1,785.40	35.46	51.352		
5,700.00	5,592.44	5,250.53	5,037.04	22.21	27.72	-130.71	-287.30	1,266.93	1,864.90	1,828.66	36.23	51.468		
5,800.00	5,689.89	5,340.30	5,121.39	22.69	28.36	-130.72	-293.51	1,297.02	1,908.94	1,871.93	37.01	51.578		
5,900.00	5,787.34	5,430.08	5,205.75	23.18	29.01	-130.72	-299.73	1,327.12	1,952.99	1,915.20	37.79	51.683		
5,990.14	5,875.18	5,511.01	5,281.79	23.61	29.59	-130.72	-305.94	1,354.24	1,992.69	1,954.20	38.49	51.773		
6,000.00	5,884.79	5,519.87	5,290.11	23.65	29.65	-130.80	-305.94	1,357.21	1,997.02	1,958.44	38.59	51.755		
6,100.00	5,982.68	5,610.22	5,375.01	23.97	30.30	-131.47	-312.19	1,387.50	2,039.83	2,000.34	39.49	51.648		
6,200.00	6,081.23	5,701.46	5,460.74	24.26	30.95	-132.01	-318.50	1,418.08	2,080.54	2,040.18	40.36	51.548		
6,300.00	6,180.31	5,860.78	5,611.06	24.51	31.93	-132.30	-329.16	1,469.73	2,118.54	2,077.17	41.37	51.213		
6,400.00	6,279.79	6,133.75	5,874.38	24.72	33.13	-132.33	-343.62	1,539.80	2,148.08	2,105.59	42.49	50.553		
6,500.00	6,379.57	6,421.23	6,157.72	24.89	33.99	-132.36	-353.31	1,586.71	2,167.07	2,123.66	43.41	49.918		
6,600.00	6,479.52	6,717.13	6,452.85	25.03	34.47	-132.41	-357.23	1,605.72	2,174.90	2,130.81	44.09	49.332		
6,638.48	6,518.00	6,782.28	6,518.00	25.07	34.52	72.70	-357.29	1,606.00	2,175.15	2,130.91	44.24	49.169		
6,700.00	6,579.52	6,843.80	6,579.52	25.14	34.58	72.70	-357.29	1,606.00	2,175.15	2,130.76	44.39	48.996		
6,800.00	6,679.52	6,943.80	6,679.52	25.25	34.67	72.70	-357.29	1,606.00	2,175.15	2,130.51	44.64	48.729		
6,900.00	6,779.52	7,043.80	6,779.52	25.35	34.76	72.70	-357.29	1,606.00	2,175.15	2,130.27	44.88	48.462		
7,000.00	6,879.52	7,143.80	6,879.52	25.46	34.85	72.70	-357.29	1,606.00	2,175.15	2,130.02	45.13	48.194		
7,100.00	6,979.52	7,243.80	6,979.52	25.56	34.94	72.70	-357.29	1,606.00	2,175.15	2,129.77	45.39	47.926		
7,200.00	7,079.52	7,343.80	7,079.52	25.67	35.04	72.70	-357.29	1,606.00	2,175.15	2,129.51	45.64	47.658		
7,300.00	7,179.52	7,443.80	7,179.52	25.78	35.13	72.70	-357.29	1,606.00	2,175.15	2,129.25	45.90	47.390		
7,400.00	7,279.52	7,543.80	7,279.52	25.89	35.23	72.70	-357.29	1,606.00	2,175.15	2,128.99	46.16	47.122		
7,500.00	7,379.52	7,643.80	7,379.52	26.01	35.33	72.70	-357.29	1,606.00	2,175.15	2,128.73	46.42	46.853		
7,600.00	7,479.52	7,743.80	7,479.52	26.12	35.42	72.70	-357.29	1,606.00	2,175.15	2,128.46	46.69	46.585		
7,700.00	7,579.52	7,843.80	7,579.52	26.24	35.52	72.70	-357.29	1,606.00	2,175.15	2,128.19	46.96	46.318		
7,800.00	7,679.52	7,943.80	7,679.52	26.36	35.62	72.70	-357.29	1,606.00	2,175.15	2,127.92	47.23	46.051		
7,900.00	7,779.52	8,043.80	7,779.52	26.47	35.73	72.70	-357.29	1,606.00	2,175.15	2,127.64	47.51	45.784		
8,000.00	7,879.52	8,143.80	7,879.52	26.59	35.83	72.70	-357.29	1,606.00	2,175.15	2,127.37	47.79	45.517		
8,100.00	7,979.52	8,243.80	7,979.52	26.72	35.93	72.70	-357.29	1,606.00	2,175.15	2,127.08	48.07	45.252		
8,200.00	8,079.52	8,343.80	8,079.52	26.84	36.04	72.70	-357.29	1,606.00	2,175.15	2,126.80	48.35	44.987		
8,300.00	8,179.52	8,443.80	8,179.52	26.96	36.15	72.70	-357.29	1,606.00	2,175.15	2,126.52	48.64	44.723		
8,400.00	8,279.52	8,543.80	8,279.52	27.09	36.25	72.70	-357.29	1,606.00	2,175.15	2,126.23	48.92	44.459		
8,465.48	8,345.00	8,609.28	8,345.00	27.17	36.33	72.70	-357.29	1,606.00	2,175.15	2,126.04	49.11	44.288		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN #1 1-15-10	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			
0.00	0.00	0.00	0.00	0.00	0.00	-38.15	16.03	-12.59	20.39						
100.00	100.00	100.00	100.00	0.10	0.10	-38.15	16.03	-12.59	20.39	20.20	0.19	106.707			
200.00	200.00	200.00	200.00	0.32	0.32	-38.15	16.03	-12.59	20.39	19.75	0.64	31.825			
300.00	300.00	300.00	300.00	0.55	0.55	-38.15	16.03	-12.59	20.39	19.30	1.09	18.701			
400.00	400.00	400.00	400.00	0.77	0.77	-38.15	16.03	-12.59	20.39	18.85	1.54	13.241			
500.00	500.00	500.00	500.00	0.99	0.99	-38.15	16.03	-12.59	20.39	18.40	1.99	10.249			
600.00	600.00	600.00	600.00	1.22	1.22	-38.15	16.03	-12.59	20.39	17.95	2.44	8.360			
700.00	700.00	700.00	700.00	1.44	1.44	-38.15	16.03	-12.59	20.39	17.50	2.89	7.058			
800.00	800.00	800.00	800.00	1.67	1.67	-38.15	16.03	-12.59	20.39	17.05	3.34	6.108			
900.00	900.00	900.00	900.00	1.89	1.89	-38.15	16.03	-12.59	20.39	16.60	3.79	5.383			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-38.15	16.03	-12.59	20.39	16.15	4.24	4.812			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-38.15	16.03	-12.59	20.39	15.92	4.46	4.569 CC, ES			
1,100.00	1,100.00	1,099.89	1,099.89	2.33	2.33	116.66	15.88	-13.00	20.71	16.05	4.66	4.442 SF			
1,200.00	1,199.93	1,199.63	1,199.56	2.50	2.52	116.10	14.62	-16.24	23.30	18.27	5.03	4.634			
1,300.00	1,299.68	1,299.22	1,298.91	2.69	2.73	115.27	12.12	-22.69	28.47	23.06	5.41	5.259			
1,400.00	1,399.13	1,398.56	1,397.70	2.90	2.95	114.45	8.38	-32.34	36.22	30.39	5.83	6.211			
1,500.00	1,498.15	1,497.55	1,495.74	3.13	3.20	113.74	3.42	-45.12	46.54	40.24	6.30	7.388			
1,600.00	1,596.63	1,596.24	1,592.95	3.40	3.48	113.21	-2.71	-60.94	59.37	52.54	6.83	8.693			
1,698.34	1,692.82	1,693.52	1,688.58	3.71	3.78	114.42	-9.14	-77.53	73.71	66.30	7.41	9.943			
1,700.00	1,694.44	1,695.15	1,690.19	3.72	3.79	114.46	-9.25	-77.81	73.96	66.54	7.42	9.964			
1,800.00	1,791.89	1,793.93	1,787.30	4.08	4.12	116.46	-15.78	-94.66	89.33	81.26	8.07	11.067			
1,900.00	1,889.34	1,892.70	1,884.41	4.46	4.46	117.87	-22.31	-111.51	104.76	96.01	8.75	11.970			
2,000.00	1,986.79	1,991.47	1,981.51	4.86	4.81	118.92	-28.83	-128.35	120.25	110.79	9.46	12.714			
2,100.00	2,084.24	2,090.25	2,078.62	5.27	5.18	119.73	-35.36	-145.20	135.76	125.58	10.18	13.332			
2,200.00	2,181.69	2,189.02	2,175.73	5.70	5.55	120.37	-41.89	-162.05	151.30	140.37	10.92	13.849			
2,300.00	2,279.14	2,287.79	2,272.83	6.14	5.92	120.89	-48.42	-178.89	166.85	155.17	11.68	14.288			
2,400.00	2,376.59	2,386.57	2,369.94	6.58	6.31	121.33	-54.95	-195.74	182.41	169.97	12.44	14.662			
2,500.00	2,474.04	2,485.34	2,467.05	7.03	6.69	121.69	-61.48	-212.58	197.98	184.77	13.21	14.984			
2,600.00	2,571.49	2,584.11	2,564.15	7.48	7.08	122.01	-68.01	-229.43	213.56	199.57	13.99	15.264			
2,700.00	2,668.94	2,682.88	2,661.26	7.93	7.47	122.28	-74.54	-246.28	229.14	214.36	14.77	15.509			
2,800.00	2,766.39	2,781.66	2,758.37	8.39	7.87	122.51	-81.07	-263.12	244.73	229.16	15.56	15.725			
2,900.00	2,863.84	2,880.43	2,855.47	8.86	8.26	122.72	-87.60	-279.97	260.32	243.96	16.36	15.917			
3,000.00	2,961.29	2,979.20	2,952.58	9.32	8.66	122.90	-94.13	-296.82	275.91	258.76	17.15	16.087			
3,100.00	3,058.74	3,077.98	3,049.68	9.79	9.06	123.07	-100.66	-313.66	291.50	273.56	17.95	16.241			
3,200.00	3,156.19	3,176.75	3,146.79	10.26	9.46	123.22	-107.19	-330.51	307.10	288.35	18.75	16.379			
3,300.00	3,253.64	3,275.52	3,243.90	10.73	9.86	123.35	-113.72	-347.36	322.70	303.15	19.55	16.504			
3,400.00	3,351.09	3,374.30	3,341.00	11.20	10.27	123.47	-120.25	-364.20	338.30	317.94	20.36	16.615			
3,500.00	3,448.54	3,473.07	3,438.11	11.67	10.67	123.58	-126.78	-381.05	353.91	332.73	21.17	16.716			
3,600.00	3,545.99	3,571.84	3,535.22	12.15	11.08	123.68	-133.31	-397.90	369.51	347.53	21.98	16.808			
3,700.00	3,643.44	3,670.62	3,632.32	12.62	11.48	123.78	-139.84	-414.74	385.11	362.32	22.80	16.893			
3,800.00	3,740.89	3,769.39	3,729.43	13.10	11.89	123.86	-146.36	-431.59	400.72	377.11	23.61	16.971			
3,900.00	3,838.34	3,868.16	3,826.54	13.57	12.29	123.94	-152.89	-448.43	416.33	391.90	24.43	17.042			
4,000.00	3,935.79	3,966.93	3,923.64	14.05	12.70	124.01	-159.42	-465.28	431.93	406.69	25.25	17.109			
4,100.00	4,033.24	4,065.71	4,020.75	14.53	13.11	124.08	-165.95	-482.13	447.54	421.48	26.06	17.171			
4,200.00	4,130.69	4,164.48	4,117.86	15.00	13.52	124.15	-172.48	-498.97	463.15	436.27	26.88	17.228			
4,300.00	4,228.14	4,263.25	4,214.96	15.48	13.93	124.21	-179.01	-515.82	478.76	451.06	27.70	17.281			
4,400.00	4,325.59	4,362.03	4,312.07	15.96	14.34	124.26	-185.54	-532.67	494.37	465.84	28.52	17.331			
4,500.00	4,423.04	4,460.80	4,409.18	16.44	14.75	124.31	-192.07	-549.51	509.98	480.63	29.35	17.378			
4,600.00	4,520.49	4,559.57	4,506.28	16.92	15.16	124.36	-198.60	-566.36	525.59	495.42	30.17	17.422			
4,700.00	4,617.94	4,658.35	4,603.39	17.40	15.57	124.41	-205.13	-583.21	541.20	510.21	30.99	17.463			
4,800.00	4,715.39	4,757.12	4,700.50	17.88	15.98	124.45	-211.66	-600.05	556.81	525.00	31.81	17.502			
4,900.00	4,812.84	4,855.89	4,797.60	18.36	16.39	124.49	-218.19	-616.90	572.42	539.78	32.64	17.539			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,910.29	4,954.67	4,894.71	18.84	16.80	124.53	-224.72	-633.74	588.03	554.57	33.46	17.573			
5,100.00	5,007.74	5,053.44	4,991.82	19.32	17.21	124.57	-231.25	-650.59	603.64	569.36	34.29	17.606			
5,200.00	5,105.19	5,152.21	5,088.92	19.80	17.62	124.61	-237.78	-667.44	619.26	584.14	35.11	17.637			
5,300.00	5,202.64	5,250.99	5,186.03	20.28	18.03	124.64	-244.31	-684.28	634.87	598.93	35.94	17.666			
5,400.00	5,300.09	5,349.76	5,283.14	20.77	18.44	124.67	-250.84	-701.13	650.48	613.72	36.76	17.694			
5,500.00	5,397.54	5,448.53	5,380.24	21.25	18.85	124.70	-257.37	-717.98	666.09	628.50	37.59	17.721			
5,600.00	5,494.99	5,547.30	5,477.35	21.73	19.27	124.73	-263.89	-734.82	681.71	643.29	38.42	17.746			
5,700.00	5,592.44	5,646.08	5,574.46	22.21	19.68	124.76	-270.42	-751.67	697.32	658.08	39.24	17.770			
5,800.00	5,689.89	5,744.85	5,671.56	22.69	20.09	124.79	-276.95	-768.52	712.93	672.86	40.07	17.793			
5,900.00	5,787.34	5,843.62	5,768.67	23.18	20.50	124.81	-283.48	-785.36	728.54	687.65	40.90	17.815			
5,990.14	5,875.18	5,932.66	5,856.20	23.61	20.88	124.83	-289.37	-800.55	742.62	700.98	41.64	17.834			
6,000.00	5,884.79	5,942.40	5,865.78	23.65	20.92	124.86	-290.01	-802.21	744.15	702.43	41.72	17.836			
6,100.00	5,982.68	6,041.34	5,963.05	23.97	21.33	124.99	-296.55	-819.08	758.58	716.11	42.47	17.861			
6,200.00	6,081.23	6,140.46	6,060.50	24.26	21.74	124.88	-303.11	-835.99	771.04	727.83	43.21	17.844			
6,300.00	6,180.31	6,239.66	6,158.02	24.51	22.16	124.54	-309.66	-852.91	781.56	737.63	43.93	17.791			
6,400.00	6,279.79	6,338.79	6,255.49	24.72	22.57	123.97	-316.22	-869.82	790.21	745.58	44.63	17.706			
6,500.00	6,379.57	6,437.76	6,352.78	24.89	22.99	123.18	-322.76	-886.70	797.07	751.77	45.30	17.595			
6,600.00	6,479.52	6,536.43	6,449.79	25.03	23.40	122.18	-329.28	-903.52	802.27	756.33	45.94	17.462			
6,638.48	6,518.00	6,574.29	6,487.01	25.07	23.56	-33.15	-331.78	-909.98	803.86	757.68	46.19	17.405			
6,700.00	6,579.52	6,634.77	6,546.47	25.14	23.81	-33.92	-335.78	-920.30	806.31	759.73	46.58	17.312			
6,800.00	6,679.52	6,733.09	6,643.13	25.25	24.22	-35.16	-342.28	-937.07	810.60	763.41	47.19	17.178			
6,900.00	6,779.52	6,831.40	6,739.78	25.35	24.63	-36.39	-348.78	-953.83	815.29	767.50	47.79	17.060			
7,000.00	6,879.52	6,929.71	6,836.43	25.46	25.04	-37.61	-355.28	-970.60	820.35	771.97	48.38	16.958			
7,100.00	6,979.52	7,028.03	6,933.09	25.56	25.46	-38.80	-361.78	-987.37	825.79	776.84	48.95	16.871			
7,200.00	7,079.52	7,129.83	7,033.22	25.67	25.84	-40.01	-368.42	-1,004.52	831.52	782.05	49.48	16.807			
7,300.00	7,179.52	7,239.37	7,141.49	25.78	26.13	-41.09	-374.42	-1,019.98	836.60	786.69	49.90	16.764			
7,400.00	7,279.52	7,350.04	7,251.44	25.89	26.39	-41.89	-378.95	-1,031.67	840.55	790.27	50.28	16.717			
7,500.00	7,379.52	7,461.53	7,362.61	26.01	26.60	-42.42	-381.96	-1,039.43	843.23	792.62	50.61	16.662			
7,600.00	7,479.52	7,573.49	7,474.50	26.12	26.76	-42.68	-383.41	-1,043.17	844.54	793.64	50.89	16.594			
7,700.00	7,579.52	7,678.52	7,579.52	26.24	26.89	-42.70	-383.54	-1,043.52	844.66	793.51	51.15	16.513			
7,800.00	7,679.52	7,778.52	7,679.52	26.36	27.01	-42.70	-383.54	-1,043.52	844.66	793.26	51.40	16.433			
7,900.00	7,779.52	7,878.52	7,779.52	26.47	27.14	-42.70	-383.54	-1,043.52	844.66	793.01	51.65	16.352			
8,000.00	7,879.52	7,978.52	7,879.52	26.59	27.27	-42.70	-383.54	-1,043.52	844.66	792.75	51.91	16.271			
8,100.00	7,979.52	8,078.52	7,979.52	26.72	27.39	-42.70	-383.54	-1,043.52	844.66	792.49	52.17	16.191			
8,200.00	8,079.52	8,079.00	7,980.00	26.84	27.39	-42.70	-383.54	-1,043.52	850.50	798.20	52.30	16.262			
8,300.00	8,179.52	8,079.00	7,980.00	26.96	27.39	-42.70	-383.54	-1,043.52	867.91	815.47	52.43	16.553			
8,400.00	8,279.52	8,079.00	7,980.00	27.09	27.39	-42.70	-383.54	-1,043.52	896.19	843.63	52.56	17.050			
8,465.48	8,345.00	8,079.00	7,980.00	27.17	27.39	-42.70	-383.54	-1,043.52	920.15	867.50	52.65	17.477			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Offset			Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	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	140.55	-15.30	12.59	19.82						
100.00	100.00	100.00	100.00	0.10	0.10	140.55	-15.30	12.59	19.82	19.63	0.19	103.735			
200.00	200.00	200.00	200.00	0.32	0.32	140.55	-15.30	12.59	19.82	19.18	0.64	30.939			
300.00	300.00	300.00	300.00	0.55	0.55	140.55	-15.30	12.59	19.82	18.73	1.09	18.180			
400.00	400.00	400.00	400.00	0.77	0.77	140.55	-15.30	12.59	19.82	18.28	1.54	12.872			
500.00	500.00	500.00	500.00	0.99	0.99	140.55	-15.30	12.59	19.82	17.83	1.99	9.963			
600.00	600.00	600.00	600.00	1.22	1.22	140.55	-15.30	12.59	19.82	17.38	2.44	8.127			
700.00	700.00	700.00	700.00	1.44	1.44	140.55	-15.30	12.59	19.82	16.93	2.89	6.862			
800.00	800.00	800.00	800.00	1.67	1.67	140.55	-15.30	12.59	19.82	16.48	3.34	5.938			
900.00	900.00	900.00	900.00	1.89	1.89	140.55	-15.30	12.59	19.82	16.03	3.79	5.233			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	140.55	-15.30	12.59	19.82	15.58	4.24	4.678			
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	140.55	-15.30	12.59	19.82	15.36	4.46	4.442 CC			
1,100.00	1,100.00	1,099.70	1,099.70	2.33	2.33	-65.06	-15.73	12.66	20.01	15.35	4.66	4.296 ES, SF			
1,200.00	1,199.93	1,199.07	1,199.01	2.50	2.50	-68.72	-19.13	13.22	21.56	16.56	5.00	4.311			
1,300.00	1,299.68	1,298.35	1,298.04	2.69	2.68	-74.60	-25.92	14.33	24.89	19.52	5.37	4.636			
1,400.00	1,399.13	1,397.47	1,396.62	2.90	2.88	-80.86	-36.07	16.00	30.24	24.47	5.77	5.240			
1,500.00	1,498.15	1,496.38	1,494.58	3.13	3.11	-86.33	-49.55	18.21	37.73	31.51	6.22	6.062			
1,600.00	1,596.63	1,595.02	1,591.73	3.40	3.38	-90.64	-66.31	20.95	47.39	40.64	6.75	7.023			
1,698.34	1,692.82	1,691.69	1,686.34	3.71	3.68	-93.83	-85.93	24.17	58.97	51.62	7.35	8.024			
1,700.00	1,694.44	1,693.32	1,687.93	3.72	3.69	-93.88	-86.29	24.23	59.18	51.82	7.36	8.041			
1,800.00	1,791.89	1,791.28	1,783.04	4.08	4.05	-95.15	-109.42	28.02	72.87	64.81	8.05	9.047			
1,900.00	1,889.34	1,888.77	1,876.84	4.46	4.46	-94.07	-135.61	32.31	88.19	79.38	8.81	10.006			
2,000.00	1,986.79	1,985.56	1,969.02	4.86	4.93	-91.74	-164.72	37.08	105.25	95.63	9.62	10.941			
2,100.00	2,084.24	2,081.89	2,059.74	5.27	5.46	-88.82	-196.67	42.32	124.26	113.81	10.45	11.886			
2,200.00	2,181.69	2,179.71	2,151.50	5.70	6.04	-86.27	-230.12	47.80	144.16	132.85	11.32	12.737			
2,300.00	2,279.14	2,277.54	2,243.27	6.14	6.64	-84.35	-263.58	53.29	164.27	152.08	12.19	13.474			
2,400.00	2,376.59	2,375.37	2,335.03	6.58	7.25	-82.85	-297.03	58.77	184.52	171.44	13.08	14.111			
2,500.00	2,474.04	2,473.19	2,426.80	7.03	7.88	-81.64	-330.48	64.25	204.87	190.90	13.97	14.665			
2,600.00	2,571.49	2,571.02	2,518.56	7.48	8.51	-80.65	-363.94	69.74	225.28	210.42	14.87	15.151			
2,700.00	2,668.94	2,668.84	2,610.33	7.93	9.16	-79.83	-397.39	75.22	245.76	229.98	15.78	15.579			
2,800.00	2,766.39	2,766.67	2,702.09	8.39	9.81	-79.13	-430.84	80.70	266.27	249.58	16.69	15.958			
2,900.00	2,863.84	2,864.50	2,793.86	8.86	10.46	-78.53	-464.30	86.19	286.81	269.21	17.60	16.295			
3,000.00	2,961.29	2,962.32	2,885.62	9.32	11.12	-78.02	-497.75	91.67	307.38	288.86	18.52	16.598			
3,100.00	3,058.74	3,060.15	2,977.38	9.79	11.78	-77.56	-531.21	97.15	327.98	308.53	19.44	16.870			
3,200.00	3,156.19	3,157.97	3,069.15	10.26	12.44	-77.16	-564.66	102.64	348.58	328.22	20.37	17.117			
3,300.00	3,253.64	3,255.80	3,160.91	10.73	13.10	-76.81	-598.11	108.12	369.21	347.92	21.29	17.341			
3,400.00	3,351.09	3,353.63	3,252.68	11.20	13.77	-76.49	-631.57	113.60	389.84	367.62	22.22	17.545			
3,500.00	3,448.54	3,451.45	3,344.44	11.67	14.44	-76.21	-665.02	119.09	410.49	387.34	23.15	17.732			
3,600.00	3,545.99	3,549.28	3,436.21	12.15	15.11	-75.95	-698.47	124.57	431.14	407.06	24.08	17.904			
3,700.00	3,643.44	3,647.10	3,527.97	12.62	15.78	-75.71	-731.93	130.05	451.81	426.79	25.01	18.063			
3,800.00	3,740.89	3,744.93	3,619.74	13.10	16.46	-75.50	-765.38	135.54	472.47	446.53	25.95	18.210			
3,900.00	3,838.34	3,842.76	3,711.50	13.57	17.13	-75.30	-798.83	141.02	493.15	466.27	26.88	18.347			
4,000.00	3,935.79	3,940.58	3,803.27	14.05	17.81	-75.12	-832.29	146.50	513.83	486.02	27.81	18.474			
4,100.00	4,033.24	4,038.41	3,895.03	14.53	18.48	-74.96	-865.74	151.99	534.51	505.76	28.75	18.592			
4,200.00	4,130.69	4,136.24	3,986.79	15.00	19.16	-74.80	-899.19	157.47	555.20	525.52	29.68	18.703			
4,300.00	4,228.14	4,234.06	4,078.56	15.48	19.84	-74.66	-932.65	162.95	575.89	545.27	30.62	18.807			
4,400.00	4,325.59	4,331.89	4,170.32	15.96	20.51	-74.53	-966.10	168.44	596.59	565.03	31.56	18.905			
4,500.00	4,423.04	4,429.71	4,262.09	16.44	21.19	-74.40	-999.55	173.92	617.29	584.79	32.49	18.997			
4,600.00	4,520.49	4,527.54	4,353.85	16.92	21.87	-74.29	-1,033.01	179.40	637.99	604.56	33.43	19.084			
4,700.00	4,617.94	4,625.37	4,445.62	17.40	22.55	-74.18	-1,066.46	184.89	658.69	624.32	34.37	19.166			
4,800.00	4,715.39	4,723.19	4,537.38	17.88	23.23	-74.08	-1,099.92	190.37	679.39	644.09	35.30	19.244			
4,900.00	4,812.84	4,821.02	4,629.15	18.36	23.91	-73.98	-1,133.37	195.85	700.10	663.86	36.24	19.318			

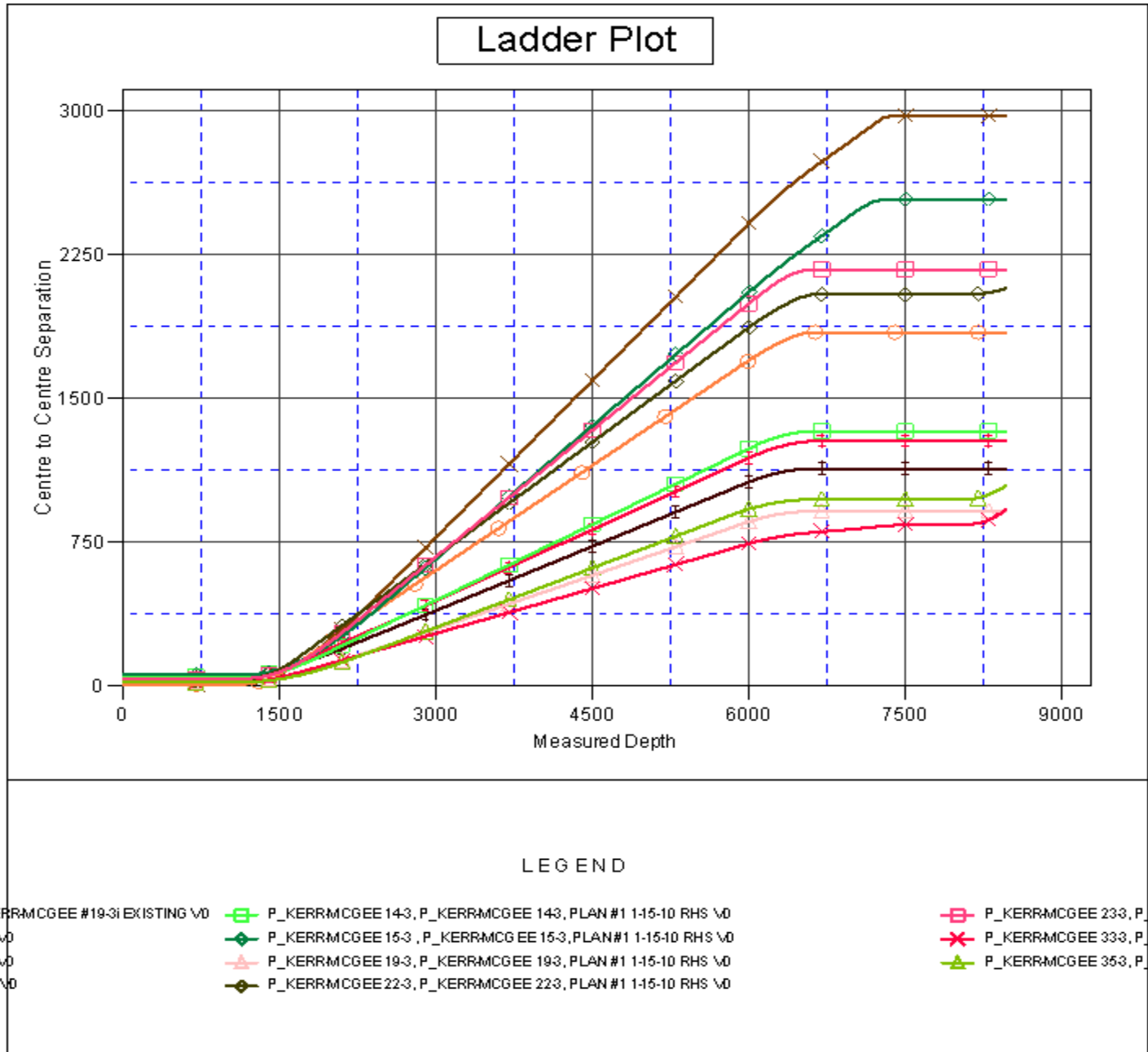
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 35-3 - P_KERR-MCGEE 35-3 - PLAN #1 1-15-10	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,910.29	4,918.84	4,720.91	18.84	24.59	-73.89	-1,166.82	201.34	720.81	683.63	37.18	19.388			
5,100.00	5,007.74	5,016.67	4,812.68	19.32	25.27	-73.80	-1,200.28	206.82	741.52	703.41	38.11	19.455			
5,200.00	5,105.19	5,114.50	4,904.44	19.80	25.95	-73.72	-1,233.73	212.30	762.23	723.18	39.05	19.519			
5,300.00	5,202.64	5,212.32	4,996.21	20.28	26.63	-73.65	-1,267.18	217.79	782.95	742.96	39.99	19.580			
5,400.00	5,300.09	5,310.15	5,087.97	20.77	27.31	-73.57	-1,300.64	223.27	803.66	762.74	40.92	19.638			
5,500.00	5,397.54	5,407.97	5,179.73	21.25	27.99	-73.51	-1,334.09	228.75	824.38	782.51	41.86	19.693			
5,600.00	5,494.99	5,505.80	5,271.50	21.73	28.68	-73.44	-1,367.54	234.24	845.09	802.30	42.80	19.747			
5,700.00	5,592.44	5,603.63	5,363.26	22.21	29.36	-73.38	-1,401.00	239.72	865.81	822.08	43.73	19.798			
5,800.00	5,689.89	5,701.45	5,455.03	22.69	30.04	-73.32	-1,434.45	245.20	886.53	841.86	44.67	19.847			
5,900.00	5,787.34	5,811.05	5,557.97	23.18	30.74	-73.27	-1,471.55	251.28	907.01	861.38	45.62	19.880			
5,990.14	5,875.18	5,928.38	5,669.47	23.61	31.28	-73.38	-1,507.57	257.19	923.16	876.66	46.49	19.855			
6,000.00	5,884.79	5,941.28	5,681.82	23.65	31.33	-73.44	-1,511.26	257.79	924.76	878.17	46.59	19.849			
6,100.00	5,982.68	6,072.79	5,808.61	23.97	31.87	-73.93	-1,545.68	263.43	939.65	892.20	47.45	19.802			
6,200.00	6,081.23	6,205.32	5,937.86	24.26	32.34	-74.34	-1,574.53	268.16	952.03	903.81	48.21	19.747			
6,300.00	6,180.31	6,338.69	6,069.16	24.51	32.74	-74.67	-1,597.58	271.94	961.83	912.98	48.86	19.686			
6,400.00	6,279.79	6,472.71	6,202.05	24.72	33.06	-74.91	-1,614.63	274.74	969.03	919.64	49.39	19.618			
6,500.00	6,379.57	6,607.18	6,336.05	24.89	33.30	-75.08	-1,625.56	276.53	973.59	923.77	49.82	19.543			
6,600.00	6,479.52	6,741.89	6,470.66	25.03	33.47	-75.17	-1,630.28	277.30	975.49	925.36	50.13	19.459			
6,638.48	6,518.00	6,789.23	6,518.00	25.07	33.51	129.93	-1,630.48	277.33	975.54	925.31	50.23	19.423			
6,700.00	6,579.52	6,850.75	6,579.52	25.14	33.56	129.93	-1,630.48	277.33	975.54	925.18	50.36	19.372			
6,800.00	6,679.52	6,950.75	6,679.52	25.25	33.64	129.93	-1,630.48	277.33	975.54	924.97	50.56	19.294			
6,900.00	6,779.52	7,050.75	6,779.52	25.35	33.71	129.93	-1,630.48	277.33	975.54	924.77	50.77	19.214			
7,000.00	6,879.52	7,150.75	6,879.52	25.46	33.79	129.93	-1,630.48	277.33	975.54	924.56	50.98	19.135			
7,100.00	6,979.52	7,250.75	6,979.52	25.56	33.87	129.93	-1,630.48	277.33	975.54	924.34	51.20	19.055			
7,200.00	7,079.52	7,350.75	7,079.52	25.67	33.95	129.93	-1,630.48	277.33	975.54	924.12	51.41	18.974			
7,300.00	7,179.52	7,450.75	7,179.52	25.78	34.03	129.93	-1,630.48	277.33	975.54	923.90	51.63	18.893			
7,400.00	7,279.52	7,550.75	7,279.52	25.89	34.12	129.93	-1,630.48	277.33	975.54	923.68	51.86	18.812			
7,500.00	7,379.52	7,650.75	7,379.52	26.01	34.20	129.93	-1,630.48	277.33	975.54	923.45	52.08	18.730			
7,600.00	7,479.52	7,750.75	7,479.52	26.12	34.29	129.93	-1,630.48	277.33	975.54	923.22	52.31	18.648			
7,700.00	7,579.52	7,850.75	7,579.52	26.24	34.38	129.93	-1,630.48	277.33	975.54	922.99	52.54	18.566			
7,800.00	7,679.52	7,950.75	7,679.52	26.36	34.46	129.93	-1,630.48	277.33	975.54	922.76	52.78	18.483			
7,900.00	7,779.52	8,050.75	7,779.52	26.47	34.55	129.93	-1,630.48	277.33	975.54	922.52	53.02	18.401			
8,000.00	7,879.52	8,150.75	7,879.52	26.59	34.65	129.93	-1,630.48	277.33	975.54	922.28	53.26	18.318			
8,061.00	7,940.52	8,211.75	7,940.52	26.67	34.70	129.93	-1,630.48	277.33	975.54	922.13	53.40	18.267			
8,100.00	7,979.52	8,236.23	7,965.00	26.72	34.72	129.93	-1,630.48	277.33	975.65	922.16	53.48	18.242			
8,200.00	8,079.52	8,236.23	7,965.00	26.84	34.72	129.93	-1,630.48	277.33	982.24	928.63	53.61	18.322			
8,300.00	8,179.52	8,236.23	7,965.00	26.96	34.72	129.93	-1,630.48	277.33	998.85	945.11	53.74	18.588			
8,400.00	8,279.52	8,236.23	7,965.00	27.09	34.72	129.93	-1,630.48	277.33	1,024.99	971.12	53.87	19.029			
8,465.48	8,345.00	8,236.23	7,965.00	27.17	34.72	129.93	-1,630.48	277.33	1,046.94	992.98	53.95	19.406			

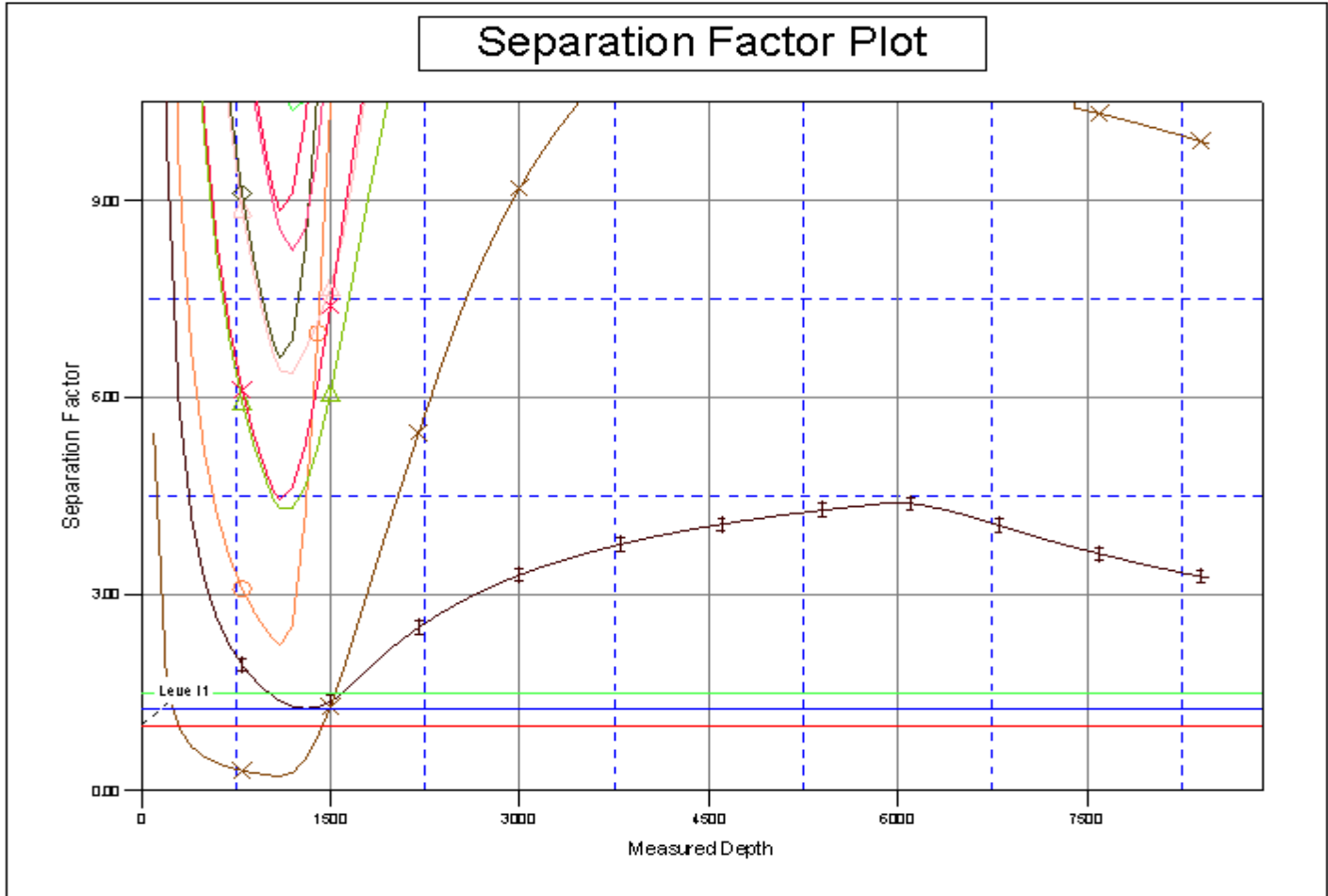
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5057.00ft (Original Well Elev) Coordinates are relative to: P\_KERR-MCGEE 13-3  
 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: 0.33°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 13-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 13-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 13-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5057.00ft (Original Well Elev) Coordinates are relative to: P\_KERR-MCGEE 13-3  
 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: 0.33°



LEGEND

P_KERRMCGEE #19-3i EXISTING \0	P_KERRMCGEE 14-3, P_KERRMCGEE 14-3, PLAN #1 1-15-10 RHS \0	P_KERRMCGEE 23-3, P_K
3 \0	P_KERRMCGEE 15-3, P_KERRMCGEE 15-3, PLAN #1 1-15-10 RHS \0	P_KERRMCGEE 33-3, P_K
3 \0	P_KERRMCGEE 19-3, P_KERRMCGEE 19-3, PLAN #1 1-15-10 RHS \0	P_KERRMCGEE 35-3, P_K
3 \0	P_KERRMCGEE 22-3, P_KERRMCGEE 22-3, PLAN #1 1-15-10 RHS \0	