



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_JESSER 18-2 PAD**

**P\_JESSER 4-2S**

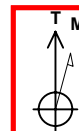
**P\_JESSER 4-2S**

**Plan: PLAN #1 3-16-10 RHS**

## **Standard Planning Report**

**16 March, 2010**





Azimuths to True North  
Magnetic North: 8.99°

Magnetic Field  
Strength: 53095.8snT  
Dip Angle: 66.84°  
Date: 3/16/2010  
Model: IGRF2010

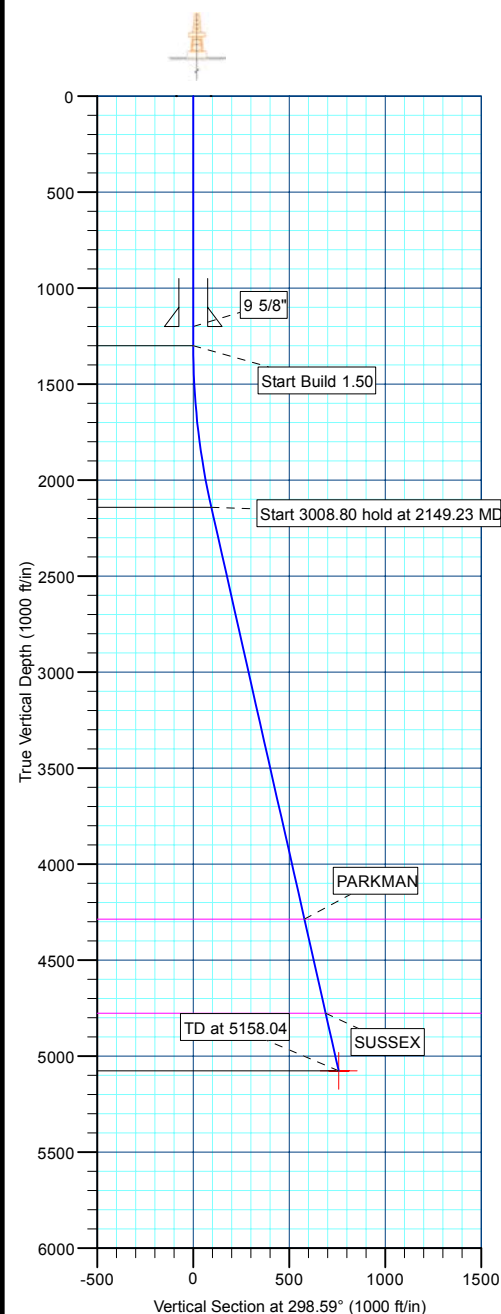
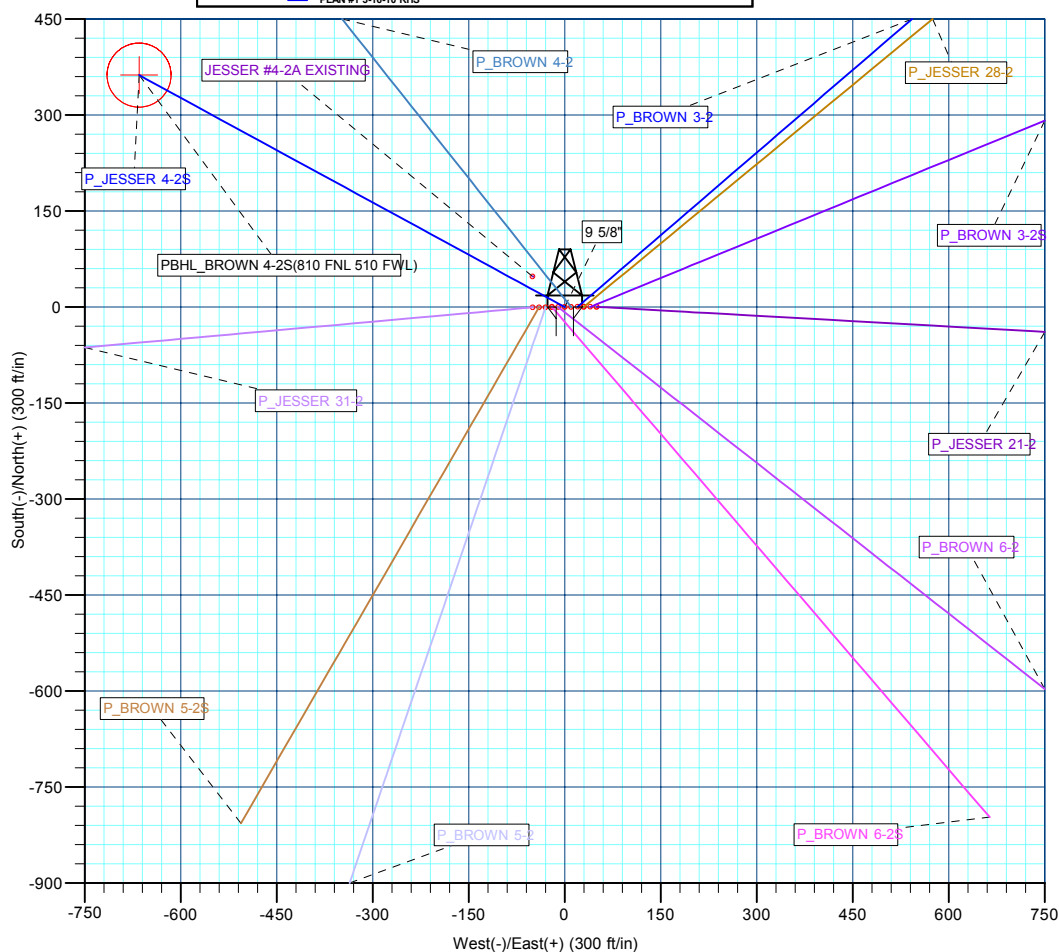
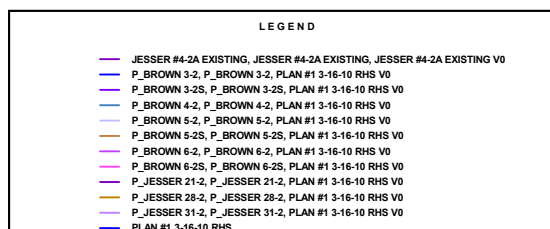
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2149.23	12.74	298.59	2142.25	44.99	-82.55	1.50	298.59	94.02	Start 3008.80 hold at 2149.23 MD
5158.04	12.74	298.59	5077.00	362.48	-665.10	0.00	0.00	757.46	TD at 5158.04

FORMATION TOP DETAILS		
TVDPPath	MDPath	Formation
4287.00	4348.10	PARKMAN
4777.00	4850.47	SUSSEX

CASING DETAILS			
TVD	MD	Name	Size
1200.00	1200.00	9 5/8"	9.62

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	5077.00	362.48	-665.10	40° 5' 6.241 N	104° 45' 6.782 W	Circle (Radius: 50.00)

WELL DETAILS: P_JESSER 4-2S						
+N/-S	+E/-W	Northing	Ground Level: Easting	5143.00 Latitude	Longitude	Slot
0.00	0.00	1274360.81	3209991.61	40° 5' 2.659 N	104° 44' 58.225 W	



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site:</b>	WELD_JESSER 18-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_JESSER 4-2S	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_JESSER 4-2S		
<b>Design:</b>	PLAN #1 3-16-10 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		

Site						WELD_JESSER 18-2 PAD, SECTION 2 T1N R66W											
Site Position:						Northing:			1,274,361.36ft			Latitude:			40° 5' 2.663 N		
From:			Lat/Long			Easting:			3,210,011.75ft			Longitude:			104° 44' 57.966 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.48 °		

Well	P_JESSER 4-2S					
Well Position	+N/-S	-0.38 ft	Northing:	1,274,360.81 ft	Latitude:	40° 5' 2.659 N
	+E/-W	-20.15 ft	Easting:	3,209,991.61 ft	Longitude:	104° 44' 58.225 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,143.00 ft

<b>Wellbore</b>	P_JESSER 4-2S				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/16/2010	9.00	66.84	53,096

<b>Design</b>	PLAN #1 3-16-10 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	298.59

<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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,149.23	12.74	298.59	2,142.25	44.99	-82.55	1.50	1.50	0.00	298.59	
5,158.04	12.74	298.59	5,077.00	362.48	-665.10	0.00	0.00	0.00	0.00	PBHL_BROWN 4-2

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site:</b>	WELD_JESSER 18-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_JESSER 4-2S	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_JESSER 4-2S		
<b>Design:</b>	PLAN #1 3-16-10 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 1.50</b>									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	1.50	298.59	1,399.99	0.63	-1.15	1.31	1.50	1.50	0.00
1,500.00	3.00	298.59	1,499.91	2.51	-4.60	5.23	1.50	1.50	0.00
1,600.00	4.50	298.59	1,599.69	5.63	-10.34	11.77	1.50	1.50	0.00
1,700.00	6.00	298.59	1,699.27	10.01	-18.37	20.92	1.50	1.50	0.00
1,800.00	7.50	298.59	1,798.57	15.64	-28.69	32.68	1.50	1.50	0.00
1,900.00	9.00	298.59	1,897.54	22.50	-41.29	47.03	1.50	1.50	0.00
2,000.00	10.50	298.59	1,996.09	30.61	-56.16	63.96	1.50	1.50	0.00
2,100.00	12.00	298.59	2,094.16	39.94	-73.29	83.47	1.50	1.50	0.00
<b>Start 3008.80 hold at 2149.23 MD</b>									
2,149.23	12.74	298.59	2,142.25	44.99	-82.55	94.02	1.50	1.50	0.00
2,200.00	12.74	298.59	2,191.77	50.35	-92.38	105.21	0.00	0.00	0.00
2,300.00	12.74	298.59	2,289.31	60.90	-111.74	127.26	0.00	0.00	0.00
2,400.00	12.74	298.59	2,386.85	71.45	-131.10	149.31	0.00	0.00	0.00
2,500.00	12.74	298.59	2,484.39	82.00	-150.47	171.36	0.00	0.00	0.00
2,600.00	12.74	298.59	2,581.93	92.56	-169.83	193.41	0.00	0.00	0.00
2,700.00	12.74	298.59	2,679.46	103.11	-189.19	215.46	0.00	0.00	0.00
2,800.00	12.74	298.59	2,777.00	113.66	-208.55	237.51	0.00	0.00	0.00
2,900.00	12.74	298.59	2,874.54	124.21	-227.91	259.56	0.00	0.00	0.00
3,000.00	12.74	298.59	2,972.08	134.76	-247.27	281.61	0.00	0.00	0.00
3,100.00	12.74	298.59	3,069.62	145.32	-266.63	303.66	0.00	0.00	0.00
3,200.00	12.74	298.59	3,167.16	155.87	-285.99	325.71	0.00	0.00	0.00
3,300.00	12.74	298.59	3,264.70	166.42	-305.36	347.76	0.00	0.00	0.00
3,400.00	12.74	298.59	3,362.24	176.97	-324.72	369.81	0.00	0.00	0.00
3,500.00	12.74	298.59	3,459.77	187.53	-344.08	391.86	0.00	0.00	0.00
3,600.00	12.74	298.59	3,557.31	198.08	-363.44	413.91	0.00	0.00	0.00
3,700.00	12.74	298.59	3,654.85	208.63	-382.80	435.96	0.00	0.00	0.00
3,800.00	12.74	298.59	3,752.39	219.18	-402.16	458.01	0.00	0.00	0.00
3,900.00	12.74	298.59	3,849.93	229.73	-421.52	480.06	0.00	0.00	0.00
4,000.00	12.74	298.59	3,947.47	240.29	-440.88	502.11	0.00	0.00	0.00
4,100.00	12.74	298.59	4,045.01	250.84	-460.25	524.16	0.00	0.00	0.00
4,200.00	12.74	298.59	4,142.54	261.39	-479.61	546.21	0.00	0.00	0.00
4,300.00	12.74	298.59	4,240.08	271.94	-498.97	568.26	0.00	0.00	0.00
<b>PARKMAN</b>									
4,348.10	12.74	298.59	4,287.00	277.02	-508.28	578.87	0.00	0.00	0.00
4,400.00	12.74	298.59	4,337.62	282.49	-518.33	590.31	0.00	0.00	0.00
4,500.00	12.74	298.59	4,435.16	293.05	-537.69	612.36	0.00	0.00	0.00
4,600.00	12.74	298.59	4,532.70	303.60	-557.05	634.41	0.00	0.00	0.00
4,700.00	12.74	298.59	4,630.24	314.15	-576.41	656.46	0.00	0.00	0.00
4,800.00	12.74	298.59	4,727.78	324.70	-595.78	678.51	0.00	0.00	0.00
<b>SUSSEX</b>									
4,850.47	12.74	298.59	4,777.00	330.03	-605.55	689.64	0.00	0.00	0.00
4,900.00	12.74	298.59	4,825.32	335.25	-615.14	700.56	0.00	0.00	0.00
5,000.00	12.74	298.59	4,922.85	345.81	-634.50	722.61	0.00	0.00	0.00
5,100.00	12.74	298.59	5,020.39	356.36	-653.86	744.66	0.00	0.00	0.00
<b>TD at 5158.04 - PBHL_BROWN 4-2S(810 FNL 510 FWL)</b>									
5,158.04	12.74	298.59	5,077.00	362.48	-665.10	757.46	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site:</b>	WELD_JESSER 18-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_JESSER 4-2S	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_JESSER 4-2S		
<b>Design:</b>	PLAN #1 3-16-10 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
- Shape									
PBHL_BROWN 4-2S(	0.00	0.00	5,077.00	362.48	-665.10	1,274,717.65	3,209,323.47	40° 5' 6.241 N	104° 45' 6.782 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,200.00	1,200.00	9 5/8"	9.62	12.25	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,348.10	4,287.00	PARKMAN			
4,850.47	4,777.00	SUSSEX			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1,300.00	1,300.00	0.00	0.00	Start Build 1.50
2,149.23	2,142.25	44.99	-82.55	Start 3008.80 hold at 2149.23 MD
5,158.04	5,077.00	362.48	-665.10	TD at 5158.04



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_JESSER 18-2 PAD  
P\_JESSER 4-2S**

**P\_JESSER 4-2S  
PLAN #1 3-16-10 RHS**

## **Anticollision Report**

**16 March, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 3-16-10 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> 3/16/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	5,158.04	PLAN #1 3-16-10 RHS (P_JESSER 4-2S)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_JESSER 18-2 PAD						
JESSER #4-2A EXISTING - JESSER #4-2A EXISTING -	2,016.77	1,991.57	17.79	-64.40	0.216	Level 1, CC, ES, SF
P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RH	1,300.00	1,300.00	20.15	14.56	3.608	CC, ES, SF
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,300.00	1,300.00	40.01	34.43	7.164	CC, ES
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,400.00	1,398.98	42.36	36.35	7.043	SF
P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RH	1,300.00	1,300.00	10.07	4.49	1.803	CC
P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RH	1,400.00	1,400.21	10.16	4.14	1.687	ES
P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RH	1,500.00	1,500.36	10.74	4.28	1.664	SF
P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RH	1,475.16	1,474.23	29.07	22.79	4.626	CC
P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RH	1,500.00	1,498.83	29.15	22.77	4.570	ES, SF
P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 F	1,541.89	1,540.14	38.58	32.03	5.892	CC, ES
P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 F	1,600.00	1,597.52	39.00	32.22	5.753	SF
P_BROWN 6-2 - P_BROWN 6-2 - PLAN #1 3-16-10 RH	1,465.60	1,465.62	5.64	-0.63	0.900	Level 1, CC, ES, SF
P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 F	1,545.02	1,544.87	12.50	5.91	1.898	CC, ES, SF
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	50.09	44.50	8.967	CC, ES
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,400.00	1,398.20	52.95	46.94	8.815	SF
P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	29.94	24.36	5.361	CC, ES, SF
P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	50.09	44.50	8.967	CC, ES
P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 R	1,600.00	1,594.51	55.59	48.78	8.161	SF

<b>Offset Design</b> WELD_JESSER 18-2 PAD - JESSER #4-2A EXISTING - JESSER #4-2A EXISTING - JESSER #4-2A E												
Survey Program: 0-UNKNOWN												
Reference Offset Semi Major Axis Distance												
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	-46.55	47.71	-50.37	72.48			
100.00	100.00	79.00	79.00	0.10	1.58	-46.55	47.71	-50.37	69.37	67.70	1.68	41.403
200.00	200.00	179.00	179.00	0.32	5.16	-46.55	47.71	-50.37	69.37	63.89	5.48	12.659
300.00	300.00	279.00	279.00	0.55	9.16	-46.55	47.71	-50.37	69.37	59.67	9.71	7.148
400.00	400.00	379.00	379.00	0.77	13.16	-46.55	47.71	-50.37	69.37	55.44	13.93	4.980
500.00	500.00	479.00	479.00	0.99	17.16	-46.55	47.71	-50.37	69.37	51.22	18.15	3.821
600.00	600.00	579.00	579.00	1.22	21.16	-46.55	47.71	-50.37	69.37	46.99	22.38	3.100
700.00	700.00	679.00	679.00	1.44	25.16	-46.55	47.71	-50.37	69.37	42.77	26.60	2.608
800.00	800.00	779.00	779.00	1.67	29.16	-46.55	47.71	-50.37	69.37	38.54	30.83	2.250
900.00	900.00	879.00	879.00	1.89	33.16	-46.55	47.71	-50.37	69.37	34.32	35.05	1.979

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - JESSER #4-2A EXISTING - JESSER #4-2A EXISTING - JESSER #4-2A E												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-UNKNOWN												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,000.00	1,000.00	979.00	979.00	2.12	37.16	-46.55	47.71	-50.37	69.37	30.10	39.28	1.766	
1,100.00	1,100.00	1,079.00	1,079.00	2.34	41.16	-46.55	47.71	-50.37	69.37	25.87	43.50	1.595	
1,200.00	1,200.00	1,179.00	1,179.00	2.57	45.16	-46.55	47.71	-50.37	69.37	21.65	47.73	1.454	Level 3
1,300.00	1,300.00	1,279.00	1,279.00	2.79	49.16	-46.55	47.71	-50.37	69.37	17.42	51.95	1.335	Level 3
1,400.00	1,399.99	1,378.99	1,378.99	3.01	53.16	15.14	47.71	-50.37	68.11	11.96	56.15	1.213	Level 2
1,500.00	1,499.91	1,478.91	1,478.91	3.23	57.16	16.07	47.71	-50.37	64.33	4.03	60.30	1.067	Level 2
1,600.00	1,599.69	1,578.69	1,578.69	3.45	61.15	17.89	47.71	-50.37	58.07	-6.34	64.41	0.902	Level 1
1,700.00	1,699.27	1,678.27	1,678.27	3.68	65.13	21.19	47.71	-50.37	49.44	-19.02	68.46	0.722	Level 1
1,800.00	1,798.57	1,777.57	1,777.57	3.92	69.10	27.56	47.71	-50.37	38.71	-33.80	72.51	0.534	Level 1
1,900.00	1,897.54	1,876.54	1,876.54	4.19	73.06	41.96	47.71	-50.37	26.79	-49.90	76.69	0.349	Level 1
2,000.00	1,996.09	1,975.09	1,975.09	4.48	77.00	80.30	47.71	-50.37	18.05	-63.39	81.44	0.222	Level 1
2,016.77	2,012.57	1,991.57	1,991.57	4.53	77.66	90.00	47.71	-50.37	17.79	-64.40	82.19	0.216	Level 1, CC, ES, SF
2,100.00	2,094.16	2,073.16	2,073.16	4.80	80.93	132.07	47.71	-50.37	24.20	-60.57	84.78	0.286	Level 1
2,149.23	2,142.25	2,121.25	2,121.25	4.97	82.85	145.93	47.71	-50.37	32.30	-53.87	86.17	0.375	Level 1
2,200.00	2,191.77	2,170.77	2,170.77	5.15	84.83	154.45	47.71	-50.37	42.10	-45.84	87.94	0.479	Level 1
2,300.00	2,289.31	2,268.31	2,268.31	5.52	88.73	163.15	47.71	-50.37	62.78	-28.98	91.76	0.684	Level 1
2,400.00	2,386.85	2,365.85	2,365.85	5.91	92.63	167.50	47.71	-50.37	84.16	-11.56	95.72	0.879	Level 1
2,500.00	2,484.39	2,463.39	2,463.39	6.31	96.54	170.08	47.71	-50.37	105.81	6.08	99.73	1.061	Level 2
2,600.00	2,581.93	2,560.93	2,560.93	6.72	100.44	171.79	47.71	-50.37	127.60	23.84	103.76	1.230	Level 2
2,700.00	2,679.46	2,658.46	2,658.46	7.14	104.34	172.99	47.71	-50.37	149.47	41.66	107.81	1.386	Level 3
2,800.00	2,777.00	2,756.00	2,756.00	7.57	108.24	173.89	47.71	-50.37	171.38	59.53	111.86	1.532	
2,900.00	2,874.54	2,853.54	2,853.54	8.00	112.14	174.59	47.71	-50.37	193.33	77.42	115.91	1.668	
3,000.00	2,972.08	2,951.08	2,951.08	8.44	116.04	175.14	47.71	-50.37	215.29	95.33	119.97	1.795	
3,100.00	3,069.62	3,048.62	3,048.62	8.88	119.94	175.59	47.71	-50.37	237.27	113.25	124.03	1.913	
3,200.00	3,167.16	3,146.16	3,146.16	9.32	123.85	175.97	47.71	-50.37	259.27	131.18	128.09	2.024	
3,300.00	3,264.70	3,243.70	3,243.70	9.77	127.75	176.28	47.71	-50.37	281.27	149.12	132.15	2.128	
3,400.00	3,362.24	3,341.24	3,341.24	10.22	131.65	176.55	47.71	-50.37	303.28	167.06	136.22	2.226	
3,500.00	3,459.77	3,438.77	3,438.77	10.67	135.55	176.79	47.71	-50.37	325.29	185.01	140.28	2.319	
3,600.00	3,557.31	3,536.31	3,536.31	11.13	139.45	176.99	47.71	-50.37	347.31	202.96	144.35	2.406	
3,700.00	3,654.85	3,633.85	3,633.85	11.58	143.35	177.17	47.71	-50.37	369.34	220.92	148.42	2.489	
3,800.00	3,752.39	3,731.39	3,731.39	12.04	147.26	177.33	47.71	-50.37	391.36	238.88	152.49	2.567	
3,900.00	3,849.93	3,828.93	3,828.93	12.50	151.16	177.47	47.71	-50.37	413.39	256.84	156.55	2.641	
4,000.00	3,947.47	3,926.47	3,926.47	12.96	155.06	177.60	47.71	-50.37	435.42	274.80	160.62	2.711	
4,100.00	4,045.01	4,024.01	4,024.01	13.42	158.96	177.72	47.71	-50.37	457.45	292.76	164.69	2.778	
4,200.00	4,142.54	4,121.54	4,121.54	13.89	162.86	177.82	47.71	-50.37	479.49	310.72	168.77	2.841	
4,300.00	4,240.08	4,219.08	4,219.08	14.35	166.76	177.92	47.71	-50.37	501.52	328.69	172.84	2.902	
4,400.00	4,337.62	4,316.62	4,316.62	14.82	170.66	178.00	47.71	-50.37	523.56	346.65	176.91	2.959	
4,500.00	4,435.16	4,414.16	4,414.16	15.28	174.57	178.08	47.71	-50.37	545.60	364.62	180.98	3.015	
4,600.00	4,532.70	4,511.70	4,511.70	15.75	178.47	178.16	47.71	-50.37	567.64	382.58	185.05	3.067	
4,700.00	4,630.24	4,609.24	4,609.24	16.21	182.37	178.23	47.71	-50.37	589.68	400.55	189.13	3.118	
4,800.00	4,727.78	4,706.78	4,706.78	16.68	186.27	178.29	47.71	-50.37	611.72	418.52	193.20	3.166	
4,900.00	4,825.32	4,804.32	4,804.32	17.15	190.17	178.35	47.71	-50.37	633.76	436.48	197.27	3.213	
5,000.00	4,922.85	4,901.85	4,901.85	17.62	194.07	178.41	47.71	-50.37	655.80	454.45	201.35	3.257	
5,100.00	5,020.39	4,999.39	4,999.39	18.09	197.98	178.46	47.71	-50.37	677.84	472.42	205.42	3.300	
5,158.04	5,077.00	5,056.00	5,056.00	18.36	200.24	178.49	47.71	-50.37	690.63	482.85	207.79	3.324	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	88.92	0.38	20.15	20.15				
100.00	100.00	100.00	100.00	0.10	0.10	88.92	0.38	20.15	20.15	19.96	0.19	105.468	
200.00	200.00	200.00	200.00	0.32	0.32	88.92	0.38	20.15	20.15	19.51	0.64	31.455	
300.00	300.00	300.00	300.00	0.55	0.55	88.92	0.38	20.15	20.15	19.06	1.09	18.484	
400.00	400.00	400.00	400.00	0.77	0.77	88.92	0.38	20.15	20.15	18.61	1.54	13.087	
500.00	500.00	500.00	500.00	0.99	0.99	88.92	0.38	20.15	20.15	18.16	1.99	10.130	
600.00	600.00	600.00	600.00	1.22	1.22	88.92	0.38	20.15	20.15	17.71	2.44	8.262	
700.00	700.00	700.00	700.00	1.44	1.44	88.92	0.38	20.15	20.15	17.26	2.89	6.977	
800.00	800.00	800.00	800.00	1.67	1.67	88.92	0.38	20.15	20.15	16.81	3.34	6.037	
900.00	900.00	900.00	900.00	1.89	1.89	88.92	0.38	20.15	20.15	16.36	3.79	5.320	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	88.92	0.38	20.15	20.15	15.91	4.24	4.756	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	88.92	0.38	20.15	20.15	15.46	4.69	4.300	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	88.92	0.38	20.15	20.15	15.01	5.14	3.923	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	88.92	0.38	20.15	20.15	14.56	5.59	3.608 CC, ES, SF	
1,400.00	1,399.99	1,399.39	1,399.37	3.01	3.01	149.15	1.51	21.45	22.63	16.61	6.02	3.759	
1,500.00	1,499.91	1,498.39	1,498.23	3.23	3.23	146.78	4.86	25.35	30.09	23.65	6.44	4.673	
1,600.00	1,599.69	1,596.58	1,596.05	3.45	3.45	144.66	10.39	31.77	42.53	35.68	6.86	6.203	
1,700.00	1,699.27	1,693.61	1,692.37	3.68	3.68	143.13	18.00	40.61	59.91	52.64	7.28	8.232	
1,800.00	1,798.57	1,789.10	1,786.73	3.92	3.93	142.07	27.56	51.71	82.14	74.44	7.70	10.662	
1,900.00	1,897.54	1,882.74	1,878.73	4.19	4.20	141.29	38.92	64.91	109.09	100.96	8.14	13.406	
2,000.00	1,996.09	1,974.22	1,968.01	4.48	4.50	140.69	51.91	79.99	140.64	132.06	8.58	16.389	
2,100.00	2,094.16	2,067.63	2,058.80	4.80	4.84	140.41	66.25	96.66	175.57	166.52	9.05	19.399	
2,149.23	2,142.25	2,113.49	2,103.37	4.97	5.01	140.45	73.30	104.84	193.46	184.18	9.29	20.834	
2,200.00	2,191.77	2,160.69	2,149.24	5.15	5.19	140.70	80.55	113.26	212.16	202.61	9.55	22.213	
2,300.00	2,289.31	2,253.65	2,239.59	5.52	5.56	141.08	94.83	129.85	248.98	238.90	10.08	24.691	
2,400.00	2,386.85	2,346.61	2,329.94	5.91	5.94	141.37	109.12	146.44	285.81	275.18	10.63	26.882	
2,500.00	2,484.39	2,439.57	2,420.28	6.31	6.33	141.59	123.40	163.03	322.65	311.45	11.19	28.825	
2,600.00	2,581.93	2,532.54	2,510.63	6.72	6.74	141.76	137.68	179.62	359.49	347.72	11.77	30.555	
2,700.00	2,679.46	2,625.50	2,600.98	7.14	7.14	141.90	151.96	196.21	396.33	383.98	12.35	32.099	
2,800.00	2,777.00	2,718.46	2,691.33	7.57	7.56	142.02	166.25	212.79	433.17	420.23	12.94	33.484	
2,900.00	2,874.54	2,811.42	2,781.68	8.00	7.98	142.12	180.53	229.38	470.01	456.48	13.53	34.730	
3,000.00	2,972.08	2,904.38	2,872.02	8.44	8.40	142.21	194.81	245.97	506.86	492.72	14.14	35.855	
3,100.00	3,069.62	2,997.35	2,962.37	8.88	8.83	142.28	209.09	262.56	543.71	528.96	14.74	36.875	
3,200.00	3,167.16	3,090.31	3,052.72	9.32	9.26	142.34	223.38	279.15	580.55	565.19	15.36	37.801	
3,300.00	3,264.70	3,183.27	3,143.07	9.77	9.70	142.40	237.66	295.74	617.40	601.42	15.98	38.647	
3,400.00	3,362.24	3,276.23	3,233.42	10.22	10.13	142.45	251.94	312.33	654.25	637.65	16.60	39.421	
3,500.00	3,459.77	3,369.20	3,323.76	10.67	10.57	142.49	266.22	328.92	691.10	673.87	17.22	40.131	
3,600.00	3,557.31	3,462.16	3,414.11	11.13	11.01	142.53	280.51	345.50	727.94	710.10	17.85	40.785	
3,700.00	3,654.85	3,555.12	3,504.46	11.58	11.46	142.57	294.79	362.09	764.79	746.31	18.48	41.388	
3,800.00	3,752.39	3,648.08	3,594.81	12.04	11.90	142.60	309.07	378.68	801.64	782.53	19.11	41.947	
3,900.00	3,849.93	3,741.04	3,685.16	12.50	12.34	142.63	323.35	395.27	838.49	818.75	19.75	42.465	
4,000.00	3,947.47	3,834.01	3,775.51	12.96	12.79	142.66	337.64	411.86	875.34	854.96	20.38	42.946	
4,100.00	4,045.01	3,926.97	3,865.85	13.42	13.24	142.69	351.92	428.45	912.19	891.17	21.02	43.395	
4,200.00	4,142.54	4,019.93	3,956.20	13.89	13.69	142.71	366.20	445.04	949.04	927.38	21.66	43.814	
4,300.00	4,240.08	4,112.89	4,046.55	14.35	14.14	142.73	380.49	461.63	985.89	963.59	22.30	44.206	
4,400.00	4,337.62	4,205.86	4,136.90	14.82	14.58	142.75	394.77	478.22	1,022.74	999.80	22.95	44.573	
4,500.00	4,435.16	4,298.82	4,227.25	15.28	15.04	142.77	409.05	494.80	1,059.59	1,036.00	23.59	44.918	
4,600.00	4,532.70	4,391.78	4,317.59	15.75	15.49	142.79	423.33	511.39	1,096.44	1,072.21	24.23	45.242	
4,700.00	4,630.24	4,484.74	4,407.94	16.21	15.94	142.80	437.62	527.98	1,133.29	1,108.41	24.88	45.548	
4,800.00	4,727.78	4,577.70	4,498.29	16.68	16.39	142.82	451.90	544.57	1,170.14	1,144.61	25.53	45.836	
4,900.00	4,825.32	4,670.67	4,588.64	17.15	16.84	142.83	466.18	561.16	1,206.99	1,180.82	26.18	46.109	
5,000.00	4,922.85	4,763.63	4,678.99	17.62	17.30	142.85	480.46	577.75	1,243.84	1,217.02	26.83	46.367	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,020.39	4,856.59	4,769.34	18.09	17.75	142.86	494.75	594.34	1,280.69	1,253.22	27.48	46.611	
5,158.04	5,077.00	4,910.54	4,821.77	18.36	18.01	142.87	503.03	603.96	1,302.08	1,274.23	27.85	46.747	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.50	0.35	40.01	40.01				
100.00	100.00	100.00	100.00	0.10	0.10	89.50	0.35	40.01	40.01	39.82	0.19	209.442	
200.00	200.00	200.00	200.00	0.32	0.32	89.50	0.35	40.01	40.01	39.37	0.64	62.465	
300.00	300.00	300.00	300.00	0.55	0.55	89.50	0.35	40.01	40.01	38.92	1.09	36.706	
400.00	400.00	400.00	400.00	0.77	0.77	89.50	0.35	40.01	40.01	38.47	1.54	25.989	
500.00	500.00	500.00	500.00	0.99	0.99	89.50	0.35	40.01	40.01	38.03	1.99	20.116	
600.00	600.00	600.00	600.00	1.22	1.22	89.50	0.35	40.01	40.01	37.58	2.44	16.408	
700.00	700.00	700.00	700.00	1.44	1.44	89.50	0.35	40.01	40.01	37.13	2.89	13.854	
800.00	800.00	800.00	800.00	1.67	1.67	89.50	0.35	40.01	40.01	36.68	3.34	11.988	
900.00	900.00	900.00	900.00	1.89	1.89	89.50	0.35	40.01	40.01	36.23	3.79	10.565	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.50	0.35	40.01	40.01	35.78	4.24	9.444	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.50	0.35	40.01	40.01	35.33	4.69	8.538	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.50	0.35	40.01	40.01	34.88	5.14	7.791	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.50	0.35	40.01	40.01	34.43	5.59	7.164 CC, ES	
1,400.00	1,399.99	1,398.98	1,398.97	3.01	3.01	151.10	0.84	41.20	42.36	36.35	6.01	7.043 SF	
1,500.00	1,499.91	1,497.64	1,497.55	3.23	3.22	151.56	2.29	44.74	49.40	42.97	6.43	7.687	
1,600.00	1,599.69	1,595.64	1,595.35	3.45	3.43	152.08	4.69	50.59	61.10	54.26	6.84	8.937	
1,700.00	1,699.27	1,692.68	1,691.99	3.68	3.65	152.52	8.00	58.67	77.42	70.17	7.25	10.685	
1,800.00	1,798.57	1,788.46	1,787.13	3.92	3.88	152.84	12.18	68.87	98.30	90.64	7.65	12.843	
1,900.00	1,897.54	1,882.70	1,880.44	4.19	4.13	153.05	17.17	81.06	123.66	115.59	8.06	15.338	
2,000.00	1,996.09	1,975.12	1,971.61	4.48	4.39	153.17	22.91	95.08	153.40	144.93	8.47	18.106	
2,100.00	2,094.16	2,065.50	2,060.39	4.80	4.67	153.21	29.34	110.75	187.42	178.53	8.89	21.093	
2,149.23	2,142.25	2,109.17	2,103.14	4.97	4.81	153.21	32.73	119.03	205.70	196.61	9.09	22.630	
2,200.00	2,191.77	2,153.73	2,146.64	5.15	4.97	153.30	36.37	127.93	225.32	216.00	9.32	24.166	
2,300.00	2,289.31	2,240.33	2,230.86	5.52	5.29	153.29	44.01	146.57	265.39	255.59	9.79	27.103	
2,400.00	2,386.85	2,325.35	2,313.08	5.91	5.63	153.11	52.22	166.60	307.31	297.04	10.27	29.923	
2,500.00	2,484.39	2,408.76	2,393.25	6.31	6.00	152.84	60.94	187.88	351.03	340.28	10.76	32.635	
2,600.00	2,581.93	2,494.39	2,475.10	6.72	6.41	152.50	70.48	211.17	396.31	385.04	11.26	35.188	
2,700.00	2,679.46	2,583.42	2,560.13	7.14	6.86	152.21	80.49	235.59	441.80	430.01	11.79	37.478	
2,800.00	2,777.00	2,672.45	2,645.16	7.57	7.32	151.97	90.49	260.01	487.31	474.98	12.32	39.545	
2,900.00	2,874.54	2,761.48	2,730.19	8.00	7.79	151.78	100.50	284.43	532.82	519.95	12.86	41.417	
3,000.00	2,972.08	2,850.52	2,815.22	8.44	8.28	151.61	110.50	308.85	578.33	564.92	13.41	43.116	
3,100.00	3,069.62	2,939.55	2,900.25	8.88	8.76	151.47	120.51	333.27	623.85	609.88	13.97	44.662	
3,200.00	3,167.16	3,028.58	2,985.28	9.32	9.26	151.35	130.51	357.69	669.37	654.84	14.53	46.074	
3,300.00	3,264.70	3,117.61	3,070.31	9.77	9.76	151.24	140.52	382.11	714.89	699.80	15.09	47.366	
3,400.00	3,362.24	3,206.64	3,155.34	10.22	10.27	151.15	150.53	406.53	760.41	744.75	15.66	48.553	
3,500.00	3,459.77	3,295.67	3,240.37	10.67	10.78	151.06	160.53	430.95	805.94	789.71	16.23	49.644	
3,600.00	3,557.31	3,384.70	3,325.40	11.13	11.29	150.99	170.54	455.37	851.47	834.66	16.81	50.650	
3,700.00	3,654.85	3,473.73	3,410.43	11.58	11.81	150.92	180.54	479.79	896.99	879.60	17.39	51.581	
3,800.00	3,752.39	3,562.76	3,495.46	12.04	12.33	150.86	190.55	504.21	942.52	924.55	17.97	52.443	
3,900.00	3,849.93	3,651.79	3,580.48	12.50	12.85	150.81	200.55	528.63	988.05	969.49	18.56	53.245	
4,000.00	3,947.47	3,740.82	3,665.51	12.96	13.37	150.76	210.56	553.05	1,033.58	1,014.44	19.14	53.991	
4,100.00	4,045.01	3,829.85	3,750.54	13.42	13.90	150.71	220.57	577.47	1,079.11	1,059.38	19.73	54.687	
4,200.00	4,142.54	3,918.88	3,835.57	13.89	14.42	150.67	230.57	601.89	1,124.64	1,104.32	20.32	55.337	
4,300.00	4,240.08	4,007.91	3,920.60	14.35	14.95	150.63	240.58	626.31	1,170.17	1,149.26	20.92	55.947	
4,400.00	4,337.62	4,096.94	4,005.63	14.82	15.48	150.59	250.58	650.73	1,215.70	1,194.19	21.51	56.518	
4,500.00	4,435.16	4,185.97	4,090.66	15.28	16.01	150.56	260.59	675.15	1,261.24	1,239.13	22.11	57.055	
4,600.00	4,532.70	4,275.00	4,175.69	15.75	16.55	150.53	270.59	699.57	1,306.77	1,284.07	22.70	57.560	
4,700.00	4,630.24	4,364.03	4,260.72	16.21	17.08	150.50	280.60	723.99	1,352.30	1,329.00	23.30	58.036	
4,800.00	4,727.78	4,453.06	4,345.75	16.68	17.61	150.47	290.60	748.41	1,397.83	1,373.93	23.90	58.486	
4,900.00	4,825.32	4,542.09	4,430.78	17.15	18.15	150.45	300.61	772.83	1,443.37	1,418.87	24.50	58.910	
5,000.00	4,922.85	4,631.12	4,515.81	17.62	18.68	150.43	310.62	797.25	1,488.90	1,463.80	25.10	59.313	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,020.39	4,720.16	4,600.84	18.09	19.22	150.40	320.62	821.67	1,534.43	1,508.73	25.70	59.694	
5,158.04	5,077.00	4,771.82	4,650.18	18.36	19.53	150.39	326.43	835.84	1,560.86	1,534.80	26.05	59.906	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	10.07	10.07				
100.00	100.00	100.00	100.00	0.10	0.10	90.00	0.00	10.07	10.07	9.88	0.19	52.725	
200.00	200.00	200.00	200.00	0.32	0.32	90.00	0.00	10.07	10.07	9.43	0.64	15.725	
300.00	300.00	300.00	300.00	0.55	0.55	90.00	0.00	10.07	10.07	8.98	1.09	9.240	
400.00	400.00	400.00	400.00	0.77	0.77	90.00	0.00	10.07	10.07	8.53	1.54	6.542	
500.00	500.00	500.00	500.00	0.99	0.99	90.00	0.00	10.07	10.07	8.08	1.99	5.064	
600.00	600.00	600.00	600.00	1.22	1.22	90.00	0.00	10.07	10.07	7.63	2.44	4.131	
700.00	700.00	700.00	700.00	1.44	1.44	90.00	0.00	10.07	10.07	7.18	2.89	3.488	
800.00	800.00	800.00	800.00	1.67	1.67	90.00	0.00	10.07	10.07	6.74	3.34	3.018	
900.00	900.00	900.00	900.00	1.89	1.89	90.00	0.00	10.07	10.07	6.29	3.79	2.660	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	0.00	10.07	10.07	5.84	4.24	2.378	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	90.00	0.00	10.07	10.07	5.39	4.69	2.149	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	90.00	0.00	10.07	10.07	4.94	5.14	1.961	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	90.00	0.00	10.07	10.07	4.49	5.59	1.803 CC	
1,400.00	1,399.99	1,400.21	1,400.19	3.01	3.02	147.21	1.37	8.98	10.16	4.14	6.02	1.687 ES	
1,500.00	1,499.91	1,500.36	1,500.19	3.23	3.24	135.32	5.48	5.71	10.74	4.28	6.45	1.664 SF	
1,600.00	1,599.69	1,600.39	1,599.84	3.45	3.47	119.21	12.32	0.28	12.55	5.65	6.90	1.819	
1,700.00	1,699.27	1,700.24	1,698.94	3.68	3.71	104.31	21.85	-7.30	16.21	8.84	7.38	2.198	
1,800.00	1,798.57	1,799.85	1,797.32	3.92	3.97	93.38	34.05	-17.00	21.85	13.96	7.89	2.769	
1,900.00	1,897.54	1,899.42	1,895.16	4.19	4.26	86.95	48.49	-28.48	29.07	20.63	8.44	3.446	
2,000.00	1,996.09	1,999.14	1,993.09	4.48	4.58	86.69	63.22	-40.19	36.43	27.41	9.03	4.036	
2,100.00	2,094.16	2,098.85	2,091.01	4.80	4.91	89.91	77.94	-51.90	43.72	34.05	9.67	4.521	
2,149.23	2,142.25	2,147.90	2,139.18	4.97	5.07	92.29	85.19	-57.65	47.38	37.37	10.01	4.735	
2,200.00	2,191.77	2,198.48	2,188.85	5.15	5.25	94.79	92.65	-63.59	51.25	40.89	10.36	4.947	
2,300.00	2,289.31	2,298.10	2,286.68	5.52	5.60	98.74	107.36	-75.29	59.12	48.04	11.07	5.338	
2,400.00	2,386.85	2,397.72	2,384.51	5.91	5.96	101.75	122.07	-86.98	67.19	55.39	11.80	5.693	
2,500.00	2,484.39	2,497.34	2,482.34	6.31	6.33	104.12	136.79	-98.68	75.41	62.87	12.54	6.011	
2,600.00	2,581.93	2,596.95	2,580.17	6.72	6.70	106.01	151.50	-110.38	83.73	70.44	13.30	6.297	
2,700.00	2,679.46	2,696.57	2,678.00	7.14	7.08	107.57	166.21	-122.07	92.13	78.07	14.06	6.553	
2,800.00	2,777.00	2,796.19	2,775.83	7.57	7.46	108.86	180.92	-133.77	100.58	85.75	14.83	6.782	
2,900.00	2,874.54	2,895.81	2,873.66	8.00	7.84	109.95	195.63	-145.46	109.08	93.47	15.61	6.989	
3,000.00	2,972.08	2,995.43	2,971.49	8.44	8.23	110.88	210.34	-157.16	117.61	101.22	16.39	7.176	
3,100.00	3,069.62	3,095.05	3,069.32	8.88	8.62	111.69	225.05	-168.86	126.17	108.99	17.18	7.345	
3,200.00	3,167.16	3,194.67	3,167.15	9.32	9.02	112.40	239.76	-180.55	134.74	116.78	17.97	7.499	
3,300.00	3,264.70	3,294.28	3,264.98	9.77	9.41	113.02	254.47	-192.25	143.34	124.58	18.76	7.639	
3,400.00	3,362.24	3,393.90	3,362.81	10.22	9.81	113.57	269.18	-203.94	151.95	132.39	19.56	7.768	
3,500.00	3,459.77	3,493.52	3,460.64	10.67	10.21	114.06	283.89	-215.64	160.57	140.21	20.36	7.885	
3,600.00	3,557.31	3,593.14	3,558.47	11.13	10.61	114.50	298.60	-227.33	169.21	148.04	21.17	7.994	
3,700.00	3,654.85	3,692.76	3,656.30	11.58	11.01	114.90	313.31	-239.03	177.85	155.88	21.97	8.094	
3,800.00	3,752.39	3,792.38	3,754.13	12.04	11.42	115.26	328.02	-250.73	186.50	163.72	22.78	8.186	
3,900.00	3,849.93	3,892.00	3,851.96	12.50	11.82	115.59	342.73	-262.42	195.16	171.56	23.59	8.272	
4,000.00	3,947.47	3,991.61	3,949.79	12.96	12.22	115.89	357.44	-274.12	203.82	179.41	24.41	8.352	
4,100.00	4,045.01	4,091.23	4,047.62	13.42	12.63	116.16	372.15	-285.81	212.49	187.27	25.22	8.426	
4,200.00	4,142.54	4,190.85	4,145.45	13.89	13.04	116.42	386.86	-297.51	221.16	195.13	26.03	8.495	
4,300.00	4,240.08	4,290.47	4,243.28	14.35	13.44	116.65	401.57	-309.21	229.84	202.99	26.85	8.560	
4,400.00	4,337.62	4,390.09	4,341.11	14.82	13.85	116.87	416.28	-320.90	238.52	210.85	27.67	8.621	
4,500.00	4,435.16	4,489.71	4,438.94	15.28	14.26	117.08	431.00	-332.60	247.20	218.72	28.48	8.678	
4,600.00	4,532.70	4,589.33	4,536.77	15.75	14.67	117.27	445.71	-344.29	255.89	226.58	29.30	8.732	
4,700.00	4,630.24	4,688.95	4,634.60	16.21	15.08	117.44	460.42	-355.99	264.58	234.45	30.12	8.783	
4,800.00	4,727.78	4,788.56	4,732.43	16.68	15.49	117.61	475.13	-367.68	273.27	242.32	30.95	8.831	
4,900.00	4,825.32	4,888.18	4,830.26	17.15	15.90	117.76	489.84	-379.38	281.96	250.19	31.77	8.876	
5,000.00	4,922.85	4,987.80	4,928.09	17.62	16.31	117.91	504.55	-391.08	290.66	258.07	32.59	8.919	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,020.39	5,087.42	5,025.92	18.09	16.72	118.05	519.26	-402.77	299.35	265.94	33.41	8.959	
5,158.04	5,077.00	5,145.23	5,082.69	18.36	16.96	118.12	527.80	-409.56	304.40	270.51	33.89	8.982	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-90.71	-0.37	-29.94	29.94				
100.00	100.00	100.00	100.00	0.10	0.10	-90.71	-0.37	-29.94	29.94	29.75	0.19	156.721	
200.00	200.00	200.00	200.00	0.32	0.32	-90.71	-0.37	-29.94	29.94	29.30	0.64	46.741	
300.00	300.00	300.00	300.00	0.55	0.55	-90.71	-0.37	-29.94	29.94	28.85	1.09	27.467	
400.00	400.00	400.00	400.00	0.77	0.77	-90.71	-0.37	-29.94	29.94	28.40	1.54	19.447	
500.00	500.00	500.00	500.00	0.99	0.99	-90.71	-0.37	-29.94	29.94	27.95	1.99	15.052	
600.00	600.00	600.00	600.00	1.22	1.22	-90.71	-0.37	-29.94	29.94	27.50	2.44	12.278	
700.00	700.00	700.00	700.00	1.44	1.44	-90.71	-0.37	-29.94	29.94	27.05	2.89	10.367	
800.00	800.00	800.00	800.00	1.67	1.67	-90.71	-0.37	-29.94	29.94	26.60	3.34	8.971	
900.00	900.00	900.00	900.00	1.89	1.89	-90.71	-0.37	-29.94	29.94	26.15	3.79	7.906	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.71	-0.37	-29.94	29.94	25.70	4.24	7.067	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.71	-0.37	-29.94	29.94	25.26	4.69	6.389	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.71	-0.37	-29.94	29.94	24.81	5.14	5.830	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.71	-0.37	-29.94	29.94	24.36	5.59	5.361	
1,400.00	1,399.99	1,399.59	1,399.57	3.01	2.99	-33.72	-2.01	-30.50	29.47	23.47	6.00	4.914	
1,475.16	1,475.09	1,474.23	1,474.12	3.17	3.12	-43.12	-5.38	-31.65	29.07	22.79	6.28	4.626 CC	
1,500.00	1,499.91	1,498.83	1,498.67	3.23	3.16	-47.37	-6.90	-32.16	29.15	22.77	6.38	4.570 ES, SF	
1,600.00	1,599.69	1,597.37	1,596.84	3.45	3.35	-68.26	-14.97	-34.91	32.19	25.41	6.78	4.748	
1,700.00	1,699.27	1,694.87	1,693.62	3.68	3.55	-88.41	-26.09	-38.69	41.81	34.62	7.20	5.811	
1,800.00	1,798.57	1,791.02	1,788.61	3.92	3.77	-102.38	-40.11	-43.46	58.52	50.90	7.62	7.676	
1,900.00	1,897.54	1,885.51	1,881.45	4.19	4.03	-110.99	-56.82	-49.15	81.32	73.25	8.07	10.081	
2,000.00	1,996.09	1,978.77	1,972.45	4.48	4.31	-116.35	-76.08	-55.70	109.28	100.74	8.53	12.810	
2,100.00	2,094.16	2,073.50	2,064.69	4.80	4.64	-120.24	-96.54	-62.66	140.04	131.01	9.03	15.510	
2,149.23	2,142.25	2,119.91	2,109.87	4.97	4.81	-121.83	-106.57	-66.07	155.85	146.57	9.28	16.787	
2,200.00	2,191.77	2,167.69	2,156.39	5.15	4.99	-123.44	-116.89	-69.59	172.45	162.89	9.56	18.035	
2,300.00	2,289.31	2,261.80	2,248.02	5.52	5.35	-125.86	-137.21	-76.50	205.42	195.29	10.13	20.286	
2,400.00	2,386.85	2,355.91	2,339.65	5.91	5.73	-127.61	-157.54	-83.42	238.62	227.91	10.71	22.280	
2,500.00	2,484.39	2,450.02	2,431.27	6.31	6.12	-128.93	-177.87	-90.34	271.97	260.66	11.31	24.047	
2,600.00	2,581.93	2,544.13	2,522.90	6.72	6.51	-129.97	-198.20	-97.25	305.43	293.51	11.92	25.615	
2,700.00	2,679.46	2,638.24	2,614.53	7.14	6.92	-130.80	-218.52	-104.17	338.96	326.41	12.55	27.011	
2,800.00	2,777.00	2,732.35	2,706.16	7.57	7.33	-131.48	-238.85	-111.09	372.53	359.35	13.18	28.257	
2,900.00	2,874.54	2,826.46	2,797.78	8.00	7.75	-132.05	-259.18	-118.00	406.15	392.32	13.83	29.374	
3,000.00	2,972.08	2,920.57	2,889.41	8.44	8.18	-132.53	-279.50	-124.92	439.80	425.32	14.48	30.378	
3,100.00	3,069.62	3,014.68	2,981.04	8.88	8.60	-132.94	-299.83	-131.84	473.47	458.34	15.13	31.285	
3,200.00	3,167.16	3,108.79	3,072.67	9.32	9.03	-133.30	-320.16	-138.75	507.16	491.36	15.80	32.106	
3,300.00	3,264.70	3,202.90	3,164.29	9.77	9.47	-133.61	-340.49	-145.67	540.87	524.40	16.46	32.852	
3,400.00	3,362.24	3,297.01	3,255.92	10.22	9.90	-133.89	-360.81	-152.59	574.58	557.45	17.13	33.533	
3,500.00	3,459.77	3,391.12	3,347.55	10.67	10.34	-134.14	-381.14	-159.50	608.31	590.50	17.81	34.156	
3,600.00	3,557.31	3,485.23	3,439.18	11.13	10.78	-134.36	-401.47	-166.42	642.05	623.56	18.49	34.727	
3,700.00	3,654.85	3,579.34	3,530.80	11.58	11.23	-134.55	-421.80	-173.34	675.80	656.63	19.17	35.253	
3,800.00	3,752.39	3,673.45	3,622.43	12.04	11.67	-134.73	-442.12	-180.25	709.55	689.69	19.85	35.738	
3,900.00	3,849.93	3,767.56	3,714.06	12.50	12.12	-134.90	-462.45	-187.17	743.30	722.76	20.54	36.187	
4,000.00	3,947.47	3,861.67	3,805.69	12.96	12.56	-135.05	-482.78	-194.09	777.07	755.84	21.23	36.603	
4,100.00	4,045.01	3,955.78	3,897.32	13.42	13.01	-135.18	-503.11	-201.00	810.83	788.91	21.92	36.991	
4,200.00	4,142.54	4,049.89	3,988.94	13.89	13.46	-135.31	-523.43	-207.92	844.60	821.99	22.61	37.351	
4,300.00	4,240.08	4,144.00	4,080.57	14.35	13.91	-135.42	-543.76	-214.84	878.38	855.07	23.31	37.688	
4,400.00	4,337.62	4,238.11	4,172.20	14.82	14.36	-135.53	-564.09	-221.75	912.15	888.15	24.00	38.003	
4,500.00	4,435.16	4,332.22	4,263.83	15.28	14.81	-135.63	-584.42	-228.67	945.93	921.23	24.70	38.299	
4,600.00	4,532.70	4,426.33	4,355.45	15.75	15.26	-135.72	-604.74	-235.59	979.71	954.32	25.40	38.576	
4,700.00	4,630.24	4,520.44	4,447.08	16.21	15.71	-135.81	-625.07	-242.50	1,013.50	987.40	26.10	38.837	
4,800.00	4,727.78	4,614.55	4,538.71	16.68	16.17	-135.89	-645.40	-249.42	1,047.28	1,020.49	26.80	39.083	
4,900.00	4,825.32	4,708.66	4,630.34	17.15	16.62	-135.97	-665.72	-256.34	1,081.07	1,053.57	27.50	39.315	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,922.85	4,802.77	4,721.96	17.62	17.07	-136.04	-686.05	-263.25	1,114.86	1,086.66	28.20	39.534	
5,100.00	5,020.39	4,896.88	4,813.59	18.09	17.53	-136.11	-706.38	-270.17	1,148.65	1,119.75	28.90	39.742	
5,158.04	5,077.00	4,951.49	4,866.77	18.36	17.79	-136.14	-718.18	-274.19	1,168.26	1,138.95	29.31	39.857	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.52	-0.36	-40.01	40.01				
100.00	100.00	100.00	100.00	0.10	0.10	-90.52	-0.36	-40.01	40.01	39.82	0.19	209.443	
200.00	200.00	200.00	200.00	0.32	0.32	-90.52	-0.36	-40.01	40.01	39.37	0.64	62.465	
300.00	300.00	300.00	300.00	0.55	0.55	-90.52	-0.36	-40.01	40.01	38.92	1.09	36.706	
400.00	400.00	400.00	400.00	0.77	0.77	-90.52	-0.36	-40.01	40.01	38.47	1.54	25.989	
500.00	500.00	500.00	500.00	0.99	0.99	-90.52	-0.36	-40.01	40.01	38.03	1.99	20.116	
600.00	600.00	600.00	600.00	1.22	1.22	-90.52	-0.36	-40.01	40.01	37.58	2.44	16.408	
700.00	700.00	700.00	700.00	1.44	1.44	-90.52	-0.36	-40.01	40.01	37.13	2.89	13.854	
800.00	800.00	800.00	800.00	1.67	1.67	-90.52	-0.36	-40.01	40.01	36.68	3.34	11.988	
900.00	900.00	900.00	900.00	1.89	1.89	-90.52	-0.36	-40.01	40.01	36.23	3.79	10.565	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.52	-0.36	-40.01	40.01	35.78	4.24	9.444	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.52	-0.36	-40.01	40.01	35.33	4.69	8.538	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.52	-0.36	-40.01	40.01	34.88	5.14	7.791	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.52	-0.36	-40.01	40.01	34.43	5.59	7.164	
1,400.00	1,399.99	1,399.44	1,399.43	3.01	2.99	-31.65	-1.48	-40.66	39.57	33.57	6.00	6.598	
1,500.00	1,499.91	1,498.68	1,498.59	3.23	3.17	-39.50	-4.84	-42.60	38.73	32.34	6.38	6.069	
1,541.89	1,541.73	1,540.14	1,539.99	3.32	3.24	-44.44	-6.90	-43.79	38.58	32.03	6.55	5.892 CC, ES	
1,600.00	1,599.69	1,597.52	1,597.22	3.45	3.35	-52.76	-10.39	-45.81	39.00	32.22	6.78	5.753 SF	
1,700.00	1,699.27	1,695.79	1,695.08	3.68	3.55	-69.54	-18.10	-50.26	42.72	35.52	7.20	5.935	
1,800.00	1,798.57	1,793.28	1,791.91	3.92	3.76	-85.63	-27.90	-55.93	51.79	44.15	7.64	6.780	
1,900.00	1,897.54	1,889.82	1,887.48	4.19	3.99	-98.09	-39.71	-62.75	66.58	58.48	8.10	8.222	
2,000.00	1,996.09	1,985.24	1,981.57	4.48	4.24	-106.79	-53.44	-70.69	86.52	77.94	8.58	10.087	
2,100.00	2,094.16	2,079.39	2,073.99	4.80	4.53	-112.72	-68.97	-79.66	110.95	101.87	9.08	12.214	
2,149.23	2,142.25	2,125.22	2,118.82	4.97	4.67	-114.91	-77.24	-84.44	124.48	115.13	9.35	13.320	
2,200.00	2,191.77	2,172.18	2,164.62	5.15	4.84	-116.88	-86.20	-89.62	139.25	129.62	9.63	14.465	
2,300.00	2,289.31	2,263.89	2,253.70	5.52	5.18	-119.43	-105.10	-100.55	170.15	159.95	10.20	16.675	
2,400.00	2,386.85	2,354.51	2,341.17	5.91	5.55	-120.83	-125.59	-112.39	203.13	192.33	10.81	18.797	
2,500.00	2,484.39	2,447.93	2,430.98	6.31	5.97	-121.68	-147.86	-125.26	237.33	225.88	11.45	20.736	
2,600.00	2,581.93	2,541.85	2,521.26	6.72	6.41	-122.31	-170.25	-138.20	271.57	259.46	12.10	22.436	
2,700.00	2,679.46	2,635.77	2,611.55	7.14	6.86	-122.81	-192.65	-151.14	305.83	293.05	12.78	23.931	
2,800.00	2,777.00	2,729.69	2,701.83	7.57	7.32	-123.20	-215.05	-164.09	340.11	326.64	13.47	25.251	
2,900.00	2,874.54	2,823.60	2,792.12	8.00	7.80	-123.52	-237.44	-177.03	374.40	360.23	14.17	26.421	
3,000.00	2,972.08	2,917.52	2,882.40	8.44	8.28	-123.79	-259.84	-189.98	408.70	393.82	14.88	27.462	
3,100.00	3,069.62	3,011.44	2,972.69	8.88	8.77	-124.01	-282.24	-202.92	443.01	427.41	15.60	28.393	
3,200.00	3,167.16	3,105.36	3,062.97	9.32	9.27	-124.21	-304.64	-215.87	477.32	460.99	16.33	29.228	
3,300.00	3,264.70	3,199.28	3,153.26	9.77	9.77	-124.37	-327.03	-228.81	511.64	494.57	17.07	29.980	
3,400.00	3,362.24	3,293.19	3,243.54	10.22	10.27	-124.52	-349.43	-241.75	545.96	528.15	17.81	30.660	
3,500.00	3,459.77	3,387.11	3,333.83	10.67	10.78	-124.65	-371.83	-254.70	580.28	561.73	18.55	31.277	
3,600.00	3,557.31	3,481.03	3,424.11	11.13	11.29	-124.76	-394.22	-267.64	614.61	595.30	19.30	31.839	
3,700.00	3,654.85	3,574.95	3,514.40	11.58	11.80	-124.87	-416.62	-280.59	648.93	628.87	20.06	32.353	
3,800.00	3,752.39	3,668.86	3,604.68	12.04	12.32	-124.96	-439.02	-293.53	683.26	662.44	20.82	32.824	
3,900.00	3,849.93	3,762.78	3,694.97	12.50	12.83	-125.04	-461.42	-306.48	717.59	696.01	21.58	33.257	
4,000.00	3,947.47	3,856.70	3,785.25	12.96	13.35	-125.12	-483.81	-319.42	751.92	729.58	22.34	33.656	
4,100.00	4,045.01	3,950.62	3,875.54	13.42	13.87	-125.19	-506.21	-332.36	786.25	763.14	23.11	34.025	
4,200.00	4,142.54	4,044.54	3,965.82	13.89	14.40	-125.25	-528.61	-345.31	820.59	796.71	23.88	34.367	
4,300.00	4,240.08	4,138.45	4,056.11	14.35	14.92	-125.31	-551.00	-358.25	854.92	830.27	24.65	34.685	
4,400.00	4,337.62	4,232.37	4,146.39	14.82	15.44	-125.36	-573.40	-371.20	889.25	863.83	25.42	34.981	
4,500.00	4,435.16	4,326.29	4,236.68	15.28	15.97	-125.41	-595.80	-384.14	923.59	897.39	26.20	35.257	
4,600.00	4,532.70	4,420.21	4,326.96	15.75	16.50	-125.46	-618.20	-397.09	957.92	930.95	26.97	35.515	
4,700.00	4,630.24	4,514.13	4,417.25	16.21	17.02	-125.50	-640.59	-410.03	992.26	964.51	27.75	35.756	
4,800.00	4,727.78	4,608.04	4,507.53	16.68	17.55	-125.54	-662.99	-422.97	1,026.60	998.07	28.53	35.983	
4,900.00	4,825.32	4,701.96	4,597.82	17.15	18.08	-125.58	-685.39	-435.92	1,060.93	1,031.62	29.31	36.197	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	4,922.85	4,795.88	4,688.10	17.62	18.61	-125.61	-707.78	-448.86	1,095.27	1,065.18	30.09	36.398	
5,100.00	5,020.39	4,889.80	4,778.39	18.09	19.14	-125.65	-730.18	-461.81	1,129.61	1,098.73	30.87	36.587	
5,158.04	5,077.00	4,944.30	4,830.79	18.36	19.45	-125.66	-743.18	-469.32	1,149.54	1,118.21	31.33	36.692	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 6-2 - P_BROWN 6-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-10.07	10.07				
100.00	100.00	100.00	100.00	0.10	0.10	-90.00	0.00	-10.07	10.07	9.88	0.19	52.725	
200.00	200.00	200.00	200.00	0.32	0.32	-90.00	0.00	-10.07	10.07	9.43	0.64	15.725	
300.00	300.00	300.00	300.00	0.55	0.55	-90.00	0.00	-10.07	10.07	8.98	1.09	9.240	
400.00	400.00	400.00	400.00	0.77	0.77	-90.00	0.00	-10.07	10.07	8.53	1.54	6.542	
500.00	500.00	500.00	500.00	0.99	0.99	-90.00	0.00	-10.07	10.07	8.08	1.99	5.064	
600.00	600.00	600.00	600.00	1.22	1.22	-90.00	0.00	-10.07	10.07	7.63	2.44	4.131	
700.00	700.00	700.00	700.00	1.44	1.44	-90.00	0.00	-10.07	10.07	7.18	2.89	3.488	
800.00	800.00	800.00	800.00	1.67	1.67	-90.00	0.00	-10.07	10.07	6.74	3.34	3.018	
900.00	900.00	900.00	900.00	1.89	1.89	-90.00	0.00	-10.07	10.07	6.29	3.79	2.660	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.00	0.00	-10.07	10.07	5.84	4.24	2.378	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.00	0.00	-10.07	10.07	5.39	4.69	2.149	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.00	0.00	-10.07	10.07	4.94	5.14	1.961	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.00	0.00	-10.07	10.07	4.49	5.59	1.803	
1,400.00	1,399.99	1,400.18	1,400.16	3.01	3.00	-41.37	-1.08	-8.70	7.74	1.73	6.00	1.289 Level 3	
1,465.60	1,465.55	1,465.62	1,465.53	3.15	3.12	-84.54	-2.95	-6.31	5.64	-0.63	6.27	0.900 Level 1, CC, ES, SF	
1,500.00	1,499.91	1,499.78	1,499.62	3.23	3.18	-118.45	-4.30	-4.60	6.81	0.41	6.40	1.063 Level 2	
1,600.00	1,599.69	1,598.22	1,597.69	3.45	3.38	-157.69	-9.57	2.13	19.77	12.98	6.78	2.913	
1,700.00	1,699.27	1,694.98	1,693.73	3.68	3.59	-166.25	-16.78	11.31	40.37	33.21	7.17	5.633	
1,800.00	1,798.57	1,789.56	1,787.18	3.92	3.83	-169.44	-25.76	22.75	67.01	59.46	7.55	8.879	
1,900.00	1,897.54	1,881.50	1,877.52	4.19	4.09	-170.99	-36.31	36.19	99.32	91.40	7.92	12.536	
2,000.00	1,996.09	1,970.43	1,964.32	4.48	4.37	-171.86	-48.21	51.36	137.05	128.76	8.29	16.527	
2,100.00	2,094.16	2,060.37	2,051.71	4.80	4.70	-172.43	-61.36	68.12	179.06	170.39	8.67	20.664	
2,149.23	2,142.25	2,104.62	2,094.69	4.97	4.87	-172.64	-67.84	76.38	200.63	191.78	8.85	22.678	
2,200.00	2,191.77	2,150.10	2,138.88	5.15	5.05	-172.87	-74.51	84.87	223.17	214.10	9.06	24.623	
2,300.00	2,289.31	2,239.70	2,225.91	5.52	5.41	-173.21	-87.63	101.59	267.57	258.08	9.49	28.188	
2,400.00	2,386.85	2,329.29	2,312.95	5.91	5.79	-173.46	-100.76	118.32	311.98	302.05	9.93	31.421	
2,500.00	2,484.39	2,418.88	2,399.98	6.31	6.18	-173.64	-113.89	135.04	356.39	346.02	10.37	34.362	
2,600.00	2,581.93	2,508.47	2,487.01	6.72	6.58	-173.78	-127.01	151.77	400.80	389.98	10.82	37.044	
2,700.00	2,679.46	2,598.06	2,574.04	7.14	6.99	-173.90	-140.14	168.49	445.22	433.94	11.27	39.494	
2,800.00	2,777.00	2,687.66	2,661.08	7.57	7.40	-173.99	-153.26	185.22	489.63	477.90	11.73	41.738	
2,900.00	2,874.54	2,777.25	2,748.11	8.00	7.82	-174.07	-166.39	201.94	534.05	521.86	12.19	43.800	
3,000.00	2,972.08	2,866.84	2,835.14	8.44	8.24	-174.13	-179.51	218.67	578.47	565.81	12.66	45.699	
3,100.00	3,069.62	2,956.43	2,922.18	8.88	8.67	-174.19	-192.64	235.39	622.89	609.76	13.13	47.453	
3,200.00	3,167.16	3,046.03	3,009.21	9.32	9.10	-174.24	-205.77	252.12	667.30	653.71	13.60	49.077	
3,300.00	3,264.70	3,135.62	3,096.24	9.77	9.54	-174.28	-218.89	268.84	711.72	697.65	14.07	50.583	
3,400.00	3,362.24	3,225.21	3,183.27	10.22	9.97	-174.32	-232.02	285.57	756.14	741.60	14.55	51.983	
3,500.00	3,459.77	3,314.80	3,270.31	10.67	10.41	-174.35	-245.14	302.29	800.56	785.54	15.02	53.288	
3,600.00	3,557.31	3,404.39	3,357.34	11.13	10.85	-174.38	-258.27	319.02	844.98	829.48	15.50	54.506	
3,700.00	3,654.85	3,493.99	3,444.37	11.58	11.29	-174.41	-271.39	335.75	889.40	873.42	15.98	55.644	
3,800.00	3,752.39	3,583.58	3,531.41	12.04	11.74	-174.43	-284.52	352.47	933.82	917.35	16.47	56.711	
3,900.00	3,849.93	3,673.17	3,618.44	12.50	12.18	-174.46	-297.65	369.20	978.24	961.29	16.95	57.712	
4,000.00	3,947.47	3,762.76	3,705.47	12.96	12.63	-174.48	-310.77	385.92	1,022.66	1,005.23	17.44	58.653	
4,100.00	4,045.01	3,852.35	3,792.50	13.42	13.08	-174.49	-323.90	402.65	1,067.08	1,049.16	17.92	59.540	
4,200.00	4,142.54	3,941.95	3,879.54	13.89	13.53	-174.51	-337.02	419.37	1,111.50	1,093.09	18.41	60.376	
4,300.00	4,240.08	4,031.54	3,966.57	14.35	13.98	-174.53	-350.15	436.10	1,155.92	1,137.02	18.90	61.166	
4,400.00	4,337.62	4,121.13	4,053.60	14.82	14.43	-174.54	-363.28	452.82	1,200.34	1,180.95	19.39	61.913	
4,500.00	4,435.16	4,210.72	4,140.64	15.28	14.88	-174.56	-376.40	469.55	1,244.76	1,224.88	19.88	62.620	
4,600.00	4,532.70	4,300.32	4,227.67	15.75	15.33	-174.57	-389.53	486.27	1,289.18	1,268.81	20.37	63.292	
4,700.00	4,630.24	4,389.91	4,314.70	16.21	15.78	-174.58	-402.65	503.00	1,333.60	1,312.74	20.86	63.929	
4,800.00	4,727.78	4,479.50	4,401.74	16.68	16.24	-174.59	-415.78	519.72	1,378.02	1,356.67	21.35	64.534	
4,900.00	4,825.32	4,569.09	4,488.77	17.15	16.69	-174.60	-428.90	536.45	1,422.45	1,400.60	21.85	65.111	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 6-2 - P_BROWN 6-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	4,922.85	4,658.68	4,575.80	17.62	17.14	-174.61	-442.03	553.17	1,466.87	1,444.53	22.34	65.660	
5,100.00	5,020.39	4,748.28	4,662.83	18.09	17.60	-174.62	-455.16	569.90	1,511.29	1,488.45	22.83	66.184	
5,158.04	5,077.00	4,800.27	4,713.34	18.36	17.86	-174.63	-462.77	579.61	1,537.07	1,513.95	23.12	66.477	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-19.87	19.87				
100.00	100.00	100.00	100.00	0.10	0.10	-90.00	0.00	-19.87	19.87	19.68	0.19	103.985	
200.00	200.00	200.00	200.00	0.32	0.32	-90.00	0.00	-19.87	19.87	19.23	0.64	31.013	
300.00	300.00	300.00	300.00	0.55	0.55	-90.00	0.00	-19.87	19.87	18.78	1.09	18.224	
400.00	400.00	400.00	400.00	0.77	0.77	-90.00	0.00	-19.87	19.87	18.33	1.54	12.903	
500.00	500.00	500.00	500.00	0.99	0.99	-90.00	0.00	-19.87	19.87	17.88	1.99	9.987	
600.00	600.00	600.00	600.00	1.22	1.22	-90.00	0.00	-19.87	19.87	17.43	2.44	8.146	
700.00	700.00	700.00	700.00	1.44	1.44	-90.00	0.00	-19.87	19.87	16.98	2.89	6.878	
800.00	800.00	800.00	800.00	1.67	1.67	-90.00	0.00	-19.87	19.87	16.53	3.34	5.952	
900.00	900.00	900.00	900.00	1.89	1.89	-90.00	0.00	-19.87	19.87	16.08	3.79	5.246	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.00	0.00	-19.87	19.87	15.63	4.24	4.689	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.00	0.00	-19.87	19.87	15.18	4.69	4.239	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.00	0.00	-19.87	19.87	14.73	5.14	3.868	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.00	0.00	-19.87	19.87	14.28	5.59	3.557	
1,400.00	1,399.99	1,400.27	1,400.26	3.01	2.99	-33.81	-1.00	-19.01	17.94	11.93	6.00	2.989	
1,500.00	1,499.91	1,500.15	1,500.06	3.23	3.17	-57.33	-3.98	-16.45	13.51	7.12	6.39	2.113	
1,545.02	1,544.85	1,544.87	1,544.71	3.32	3.26	-79.60	-5.95	-14.76	12.50	5.91	6.58	1.898 CC, ES, SF	
1,600.00	1,599.69	1,599.23	1,598.92	3.45	3.36	-110.86	-8.89	-12.24	14.67	7.86	6.81	2.155	
1,700.00	1,699.27	1,697.14	1,696.43	3.68	3.56	-143.02	-15.65	-6.43	28.45	21.27	7.19	3.960	
1,800.00	1,798.57	1,793.52	1,792.15	3.92	3.78	-154.58	-24.16	0.87	49.99	42.43	7.56	6.610	
1,900.00	1,897.54	1,888.03	1,885.71	4.19	4.01	-159.72	-34.28	9.55	77.13	69.19	7.94	9.711	
2,000.00	1,996.09	1,980.36	1,976.77	4.48	4.26	-162.44	-45.86	19.49	109.29	100.97	8.32	13.134	
2,100.00	2,094.16	2,070.24	2,065.03	4.80	4.53	-164.05	-58.74	30.53	146.17	137.48	8.70	16.807	
2,149.23	2,142.25	2,113.51	2,107.38	4.97	4.67	-164.60	-65.50	36.33	166.00	157.12	8.88	18.693	
2,200.00	2,191.77	2,157.56	2,150.37	5.15	4.83	-165.13	-72.75	42.56	187.28	178.19	9.09	20.594	
2,300.00	2,289.31	2,242.95	2,233.40	5.52	5.15	-165.83	-87.88	55.54	230.75	221.23	9.52	24.244	
2,400.00	2,386.85	2,326.52	2,314.21	5.91	5.49	-166.25	-104.05	69.42	276.20	266.25	9.95	27.771	
2,500.00	2,484.39	2,408.24	2,392.75	6.31	5.85	-166.50	-121.16	84.09	323.56	313.18	10.38	31.180	
2,600.00	2,581.93	2,488.09	2,469.03	6.72	6.25	-166.64	-139.10	99.49	372.75	361.94	10.81	34.473	
2,700.00	2,679.46	2,571.21	2,547.98	7.14	6.69	-166.73	-158.80	116.40	423.40	412.14	11.26	37.592	
2,800.00	2,777.00	2,657.35	2,629.77	7.57	7.16	-166.79	-179.32	134.00	474.19	462.46	11.73	40.437	
2,900.00	2,874.54	2,743.49	2,711.56	8.00	7.65	-166.84	-199.84	151.61	524.98	512.79	12.20	43.048	
3,000.00	2,972.08	2,829.62	2,793.34	8.44	8.14	-166.89	-220.36	169.21	575.78	563.11	12.67	45.446	
3,100.00	3,069.62	2,915.76	2,875.13	8.88	8.65	-166.92	-240.88	186.82	626.57	613.42	13.15	47.655	
3,200.00	3,167.16	3,001.90	2,956.92	9.32	9.16	-166.96	-261.39	204.42	677.36	663.73	13.63	49.694	
3,300.00	3,264.70	3,088.04	3,038.70	9.77	9.68	-166.98	-281.91	222.03	728.15	714.03	14.12	51.575	
3,400.00	3,362.24	3,174.18	3,120.49	10.22	10.20	-167.01	-302.43	239.63	778.94	764.34	14.61	53.319	
3,500.00	3,459.77	3,260.32	3,202.28	10.67	10.73	-167.03	-322.95	257.24	829.74	814.63	15.10	54.939	
3,600.00	3,557.31	3,346.46	3,284.07	11.13	11.27	-167.04	-343.46	274.84	880.53	864.93	15.60	56.446	
3,700.00	3,654.85	3,432.60	3,365.85	11.58	11.80	-167.06	-363.98	292.45	931.32	915.22	16.10	57.852	
3,800.00	3,752.39	3,518.74	3,447.64	12.04	12.34	-167.07	-384.50	310.05	982.12	965.52	16.60	59.165	
3,900.00	3,849.93	3,604.88	3,529.43	12.50	12.88	-167.09	-405.02	327.66	1,032.91	1,015.81	17.10	60.394	
4,000.00	3,947.47	3,691.02	3,611.21	12.96	13.43	-167.10	-425.53	345.26	1,083.70	1,066.09	17.61	61.544	
4,100.00	4,045.01	3,777.16	3,693.00	13.42	13.97	-167.11	-446.05	362.87	1,134.49	1,116.38	18.12	62.624	
4,200.00	4,142.54	3,863.30	3,774.79	13.89	14.52	-167.12	-466.57	380.47	1,185.29	1,166.66	18.62	63.640	
4,300.00	4,240.08	3,949.44	3,856.58	14.35	15.07	-167.13	-487.09	398.08	1,236.08	1,216.94	19.14	64.597	
4,400.00	4,337.62	4,035.58	3,938.36	14.82	15.62	-167.14	-507.60	415.68	1,286.87	1,267.23	19.65	65.499	
4,500.00	4,435.16	4,121.72	4,020.15	15.28	16.17	-167.14	-528.12	433.29	1,337.67	1,317.51	20.16	66.352	
4,600.00	4,532.70	4,207.86	4,101.94	15.75	16.72	-167.15	-548.64	450.89	1,388.46	1,367.79	20.67	67.159	
4,700.00	4,630.24	4,294.00	4,183.72	16.21	17.28	-167.16	-569.16	468.50	1,439.25	1,418.06	21.19	67.922	
4,800.00	4,727.78	4,380.14	4,265.51	16.68	17.83	-167.16	-589.68	486.10	1,490.05	1,468.34	21.71	68.646	
4,900.00	4,825.32	4,466.28	4,347.30	17.15	18.39	-167.17	-610.19	503.71	1,540.84	1,518.61	22.22	69.333	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	4,922.85	4,552.42	4,429.08	17.62	18.94	-167.18	-630.71	521.31	1,591.63	1,568.89	22.74	69.987	
5,100.00	5,020.39	4,638.56	4,510.87	18.09	19.50	-167.18	-651.23	538.92	1,642.42	1,619.16	23.26	70.608	
5,158.04	5,077.00	4,688.55	4,558.34	18.36	19.82	-167.18	-663.14	549.13	1,671.90	1,648.34	23.56	70.956	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.58	0.36	50.09	50.09				
100.00	100.00	100.00	100.00	0.10	0.10	89.58	0.36	50.09	50.09	49.90	0.19	262.166	
200.00	200.00	200.00	200.00	0.32	0.32	89.58	0.36	50.09	50.09	49.45	0.64	78.190	
300.00	300.00	300.00	300.00	0.55	0.55	89.58	0.36	50.09	50.09	49.00	1.09	45.947	
400.00	400.00	400.00	400.00	0.77	0.77	89.58	0.36	50.09	50.09	48.55	1.54	32.532	
500.00	500.00	500.00	500.00	0.99	0.99	89.58	0.36	50.09	50.09	48.10	1.99	25.180	
600.00	600.00	600.00	600.00	1.22	1.22	89.58	0.36	50.09	50.09	47.65	2.44	20.538	
700.00	700.00	700.00	700.00	1.44	1.44	89.58	0.36	50.09	50.09	47.20	2.89	17.342	
800.00	800.00	800.00	800.00	1.67	1.67	89.58	0.36	50.09	50.09	46.75	3.34	15.006	
900.00	900.00	900.00	900.00	1.89	1.89	89.58	0.36	50.09	50.09	46.30	3.79	13.225	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.58	0.36	50.09	50.09	45.85	4.24	11.822	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.58	0.36	50.09	50.09	45.40	4.69	10.688	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.58	0.36	50.09	50.09	44.95	5.14	9.752	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.58	0.36	50.09	50.09	44.50	5.59	8.967 CC, ES	
1,400.00	1,399.99	1,398.20	1,398.18	3.01	3.00	151.76	0.27	51.77	52.95	46.94	6.01	8.815 SF	
1,500.00	1,499.91	1,495.86	1,495.70	3.23	3.20	153.63	-0.01	56.77	61.56	55.15	6.41	9.610	
1,600.00	1,599.69	1,592.46	1,591.95	3.45	3.41	155.79	-0.47	64.98	75.96	69.16	6.80	11.167	
1,700.00	1,699.27	1,687.51	1,686.33	3.68	3.63	157.69	-1.10	76.21	96.11	88.92	7.20	13.358	
1,800.00	1,798.57	1,780.55	1,778.30	3.92	3.87	159.18	-1.88	90.23	121.91	114.32	7.58	16.075	
1,900.00	1,897.54	1,871.16	1,867.38	4.19	4.13	160.28	-2.80	106.75	153.18	145.21	7.97	19.225	
2,000.00	1,996.09	1,958.98	1,953.18	4.48	4.41	161.07	-3.84	125.43	189.74	181.40	8.35	22.732	
2,100.00	2,094.16	2,043.69	2,035.37	4.80	4.73	161.63	-4.99	145.93	231.37	222.65	8.72	26.532	
2,149.23	2,142.25	2,084.18	2,074.42	4.97	4.89	161.84	-5.59	156.58	253.66	244.75	8.90	28.493	
2,200.00	2,191.77	2,125.19	2,113.83	5.15	5.06	162.12	-6.22	167.93	277.55	268.44	9.11	30.456	
2,300.00	2,289.31	2,204.18	2,189.24	5.52	5.43	162.50	-7.53	191.37	326.46	316.93	9.53	34.253	
2,400.00	2,386.85	2,286.31	2,267.08	5.91	5.85	162.74	-8.99	217.56	377.34	367.37	9.96	37.867	
2,500.00	2,484.39	2,372.26	2,348.46	6.31	6.32	162.93	-10.53	245.16	428.44	418.02	10.42	41.131	
2,600.00	2,581.93	2,458.21	2,429.84	6.72	6.80	163.09	-12.08	272.76	479.54	468.67	10.88	44.094	
2,700.00	2,679.46	2,544.16	2,511.23	7.14	7.30	163.21	-13.62	300.36	530.65	519.31	11.34	46.789	
2,800.00	2,777.00	2,630.11	2,592.61	7.57	7.81	163.31	-15.16	327.96	581.76	569.94	11.81	49.245	
2,900.00	2,874.54	2,716.06	2,673.99	8.00	8.33	163.39	-16.70	355.56	632.86	620.57	12.29	51.491	
3,000.00	2,972.08	2,802.01	2,755.37	8.44	8.85	163.46	-18.24	383.16	683.97	671.20	12.77	53.548	
3,100.00	3,069.62	2,887.96	2,836.76	8.88	9.39	163.52	-19.79	410.76	735.08	721.82	13.26	55.436	
3,200.00	3,167.16	2,973.91	2,918.14	9.32	9.93	163.58	-21.33	438.36	786.20	772.44	13.75	57.174	
3,300.00	3,264.70	3,059.86	2,999.52	9.77	10.47	163.62	-22.87	465.96	837.31	823.06	14.25	58.778	
3,400.00	3,362.24	3,145.81	3,080.90	10.22	11.02	163.67	-24.41	493.56	888.42	873.68	14.74	60.262	
3,500.00	3,459.77	3,231.76	3,162.29	10.67	11.57	163.70	-25.95	521.16	939.53	924.29	15.24	61.638	
3,600.00	3,557.31	3,317.71	3,243.67	11.13	12.12	163.74	-27.50	548.77	990.64	974.90	15.75	62.917	
3,700.00	3,654.85	3,403.66	3,325.05	11.58	12.67	163.77	-29.04	576.37	1,041.76	1,025.51	16.25	64.107	
3,800.00	3,752.39	3,489.61	3,406.43	12.04	13.23	163.79	-30.58	603.97	1,092.87	1,076.11	16.76	65.216	
3,900.00	3,849.93	3,575.56	3,487.82	12.50	13.79	163.82	-32.12	631.57	1,143.98	1,126.71	17.27	66.253	
4,000.00	3,947.47	3,661.51	3,569.20	12.96	14.35	163.84	-33.66	659.17	1,195.09	1,177.32	17.78	67.225	
4,100.00	4,045.01	3,747.45	3,650.58	13.42	14.92	163.86	-35.21	686.77	1,246.21	1,227.92	18.29	68.135	
4,200.00	4,142.54	3,833.40	3,731.96	13.89	15.48	163.88	-36.75	714.37	1,297.32	1,278.52	18.80	68.991	
4,300.00	4,240.08	3,919.35	3,813.35	14.35	16.04	163.90	-38.29	741.97	1,348.43	1,329.11	19.32	69.797	
4,400.00	4,337.62	4,005.30	3,894.73	14.82	16.61	163.91	-39.83	769.57	1,399.55	1,379.71	19.84	70.556	
4,500.00	4,435.16	4,091.25	3,976.11	15.28	17.18	163.93	-41.37	797.17	1,450.66	1,430.31	20.35	71.272	
4,600.00	4,532.70	4,177.20	4,057.50	15.75	17.75	163.94	-42.92	824.77	1,501.77	1,480.90	20.87	71.949	
4,700.00	4,630.24	4,263.15	4,138.88	16.21	18.32	163.96	-44.46	852.37	1,552.89	1,531.50	21.39	72.590	
4,800.00	4,727.78	4,349.10	4,220.26	16.68	18.88	163.97	-46.00	879.97	1,604.00	1,582.09	21.91	73.197	
4,900.00	4,825.32	4,435.05	4,301.64	17.15	19.46	163.98	-47.54	907.57	1,655.12	1,632.68	22.44	73.773	
5,000.00	4,922.85	4,521.00	4,383.03	17.62	20.03	163.99	-49.08	935.17	1,706.23	1,683.27	22.96	74.321	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,020.39	4,606.95	4,464.41	18.09	20.60	164.00	-50.63	962.77	1,757.34	1,733.86	23.48	74.842	
5,158.04	5,077.00	4,656.83	4,511.64	18.36	20.93	164.01	-51.52	978.79	1,787.01	1,763.22	23.78	75.132	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.33	0.35	29.94	29.94				
100.00	100.00	100.00	100.00	0.10	0.10	89.33	0.35	29.94	29.94	29.75	0.19	156.720	
200.00	200.00	200.00	200.00	0.32	0.32	89.33	0.35	29.94	29.94	29.30	0.64	46.741	
300.00	300.00	300.00	300.00	0.55	0.55	89.33	0.35	29.94	29.94	28.85	1.09	27.466	
400.00	400.00	400.00	400.00	0.77	0.77	89.33	0.35	29.94	29.94	28.40	1.54	19.447	
500.00	500.00	500.00	500.00	0.99	0.99	89.33	0.35	29.94	29.94	27.95	1.99	15.052	
600.00	600.00	600.00	600.00	1.22	1.22	89.33	0.35	29.94	29.94	27.50	2.44	12.278	
700.00	700.00	700.00	700.00	1.44	1.44	89.33	0.35	29.94	29.94	27.05	2.89	10.367	
800.00	800.00	800.00	800.00	1.67	1.67	89.33	0.35	29.94	29.94	26.60	3.34	8.971	
900.00	900.00	900.00	900.00	1.89	1.89	89.33	0.35	29.94	29.94	26.15	3.79	7.906	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.33	0.35	29.94	29.94	25.70	4.24	7.067	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.33	0.35	29.94	29.94	25.26	4.69	6.389	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.33	0.35	29.94	29.94	24.81	5.14	5.830	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.33	0.35	29.94	29.94	24.36	5.59	5.361	CC, ES, SF
1,400.00	1,399.99	1,399.13	1,399.11	3.01	3.01	149.94	1.44	31.26	32.43	26.42	6.02	5.389	
1,500.00	1,499.91	1,497.85	1,497.69	3.23	3.23	148.13	4.70	35.21	39.92	33.49	6.44	6.203	
1,600.00	1,599.69	1,595.77	1,595.24	3.45	3.45	146.25	10.06	41.70	52.42	45.56	6.85	7.648	
1,700.00	1,699.27	1,692.51	1,691.28	3.68	3.68	144.72	17.45	50.64	69.87	62.60	7.27	9.606	
1,800.00	1,798.57	1,787.71	1,785.36	3.92	3.93	143.55	26.72	61.87	92.20	84.50	7.70	11.978	
1,900.00	1,897.54	1,881.04	1,877.06	4.19	4.20	142.67	37.74	75.22	119.27	111.15	8.13	14.673	
2,000.00	1,996.09	1,972.21	1,966.06	4.48	4.50	141.96	50.34	90.47	150.97	142.40	8.57	17.615	
2,100.00	2,094.16	2,060.95	2,052.03	4.80	4.82	141.38	64.32	107.41	187.14	178.12	9.03	20.734	
2,149.23	2,142.25	2,103.68	2,093.18	4.97	4.99	141.12	71.66	116.30	206.54	197.29	9.25	22.320	
2,200.00	2,191.77	2,147.15	2,134.85	5.15	5.18	141.02	79.53	125.82	227.38	217.87	9.51	23.900	
2,300.00	2,289.31	2,231.24	2,214.92	5.52	5.57	140.65	95.88	145.62	270.17	260.14	10.03	26.924	
2,400.00	2,386.85	2,313.24	2,292.24	5.91	5.99	140.14	113.26	166.67	315.23	304.66	10.57	29.820	
2,500.00	2,484.39	2,393.10	2,366.77	6.31	6.45	139.56	131.53	188.80	362.48	351.36	11.12	32.590	
2,600.00	2,581.93	2,470.79	2,438.47	6.72	6.94	138.94	150.57	211.86	411.86	400.17	11.69	35.235	
2,700.00	2,679.46	2,547.77	2,508.71	7.14	7.46	138.31	170.64	236.16	463.30	451.03	12.27	37.769	
2,800.00	2,777.00	2,632.94	2,586.07	7.57	8.07	137.69	193.32	263.62	515.51	502.62	12.89	39.995	
2,900.00	2,874.54	2,718.12	2,663.44	8.00	8.69	137.19	215.99	291.08	567.75	554.23	13.52	41.991	
3,000.00	2,972.08	2,803.29	2,740.81	8.44	9.33	136.77	238.67	318.54	620.02	605.86	14.16	43.780	
3,100.00	3,069.62	2,888.46	2,818.18	8.88	9.98	136.42	261.34	346.00	672.32	657.50	14.81	45.385	
3,200.00	3,167.16	2,973.63	2,895.55	9.32	10.64	136.11	284.02	373.46	724.62	709.15	15.47	46.833	
3,300.00	3,264.70	3,058.80	2,972.91	9.77	11.31	135.85	306.69	400.92	776.94	760.81	16.14	48.145	
3,400.00	3,362.24	3,143.97	3,050.28	10.22	11.98	135.62	329.36	428.38	829.27	812.47	16.81	49.337	
3,500.00	3,459.77	3,229.14	3,127.65	10.67	12.65	135.42	352.04	455.84	881.61	864.13	17.48	50.423	
3,600.00	3,557.31	3,314.31	3,205.02	11.13	13.34	135.24	374.71	483.30	933.96	915.80	18.16	51.416	
3,700.00	3,654.85	3,399.48	3,282.38	11.58	14.02	135.08	397.39	510.76	986.31	967.46	18.85	52.326	
3,800.00	3,752.39	3,484.65	3,359.75	12.04	14.71	134.94	420.06	538.22	1,038.67	1,019.13	19.54	53.161	
3,900.00	3,849.93	3,569.82	3,437.12	12.50	15.40	134.81	442.74	565.68	1,091.03	1,070.80	20.23	53.931	
4,000.00	3,947.47	3,654.99	3,514.49	12.96	16.09	134.69	465.41	593.14	1,143.40	1,122.47	20.93	54.642	
4,100.00	4,045.01	3,740.16	3,591.86	13.42	16.79	134.58	488.09	620.60	1,195.77	1,174.14	21.62	55.302	
4,200.00	4,142.54	3,825.33	3,669.22	13.89	17.49	134.48	510.76	648.06	1,248.14	1,225.82	22.32	55.914	
4,300.00	4,240.08	3,910.50	3,746.59	14.35	18.19	134.39	533.44	675.52	1,300.51	1,277.49	23.02	56.483	
4,400.00	4,337.62	3,995.67	3,823.96	14.82	18.89	134.31	556.11	702.98	1,352.89	1,329.16	23.73	57.014	
4,500.00	4,435.16	4,080.84	3,901.33	15.28	19.59	134.23	578.79	730.44	1,405.27	1,380.83	24.44	57.510	
4,600.00	4,532.70	4,166.01	3,978.70	15.75	20.29	134.16	601.46	757.90	1,457.65	1,432.50	25.14	57.974	
4,700.00	4,630.24	4,251.18	4,056.06	16.21	21.00	134.09	624.14	785.36	1,510.03	1,484.18	25.85	58.409	
4,800.00	4,727.78	4,336.35	4,133.43	16.68	21.70	134.03	646.81	812.82	1,562.41	1,535.85	26.56	58.818	
4,900.00	4,825.32	4,421.52	4,210.80	17.15	22.41	133.97	669.49	840.28	1,614.80	1,587.52	27.28	59.203	
5,000.00	4,922.85	4,506.69	4,288.17	17.62	23.11	133.91	692.16	867.74	1,667.18	1,639.19	27.99	59.565	

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_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,020.39	4,591.86	4,365.54	18.09	23.82	133.86	714.84	895.20	1,719.57	1,690.87	28.70	59.908	
5,158.04	5,077.00	4,641.29	4,410.44	18.36	24.23	133.83	728.00	911.13	1,749.97	1,720.85	29.12	60.097	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.42	-0.36	-50.09	50.09				
100.00	100.00	100.00	100.00	0.10	0.10	-90.42	-0.36	-50.09	50.09	49.90	0.19	262.166	
200.00	200.00	200.00	200.00	0.32	0.32	-90.42	-0.36	-50.09	50.09	49.45	0.64	78.190	
300.00	300.00	300.00	300.00	0.55	0.55	-90.42	-0.36	-50.09	50.09	49.00	1.09	45.947	
400.00	400.00	400.00	400.00	0.77	0.77	-90.42	-0.36	-50.09	50.09	48.55	1.54	32.532	
500.00	500.00	500.00	500.00	0.99	0.99	-90.42	-0.36	-50.09	50.09	48.10	1.99	25.180	
600.00	600.00	600.00	600.00	1.22	1.22	-90.42	-0.36	-50.09	50.09	47.65	2.44	20.538	
700.00	700.00	700.00	700.00	1.44	1.44	-90.42	-0.36	-50.09	50.09	47.20	2.89	17.342	
800.00	800.00	800.00	800.00	1.67	1.67	-90.42	-0.36	-50.09	50.09	46.75	3.34	15.006	
900.00	900.00	900.00	900.00	1.89	1.89	-90.42	-0.36	-50.09	50.09	46.30	3.79	13.225	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.42	-0.36	-50.09	50.09	45.85	4.24	11.822	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.42	-0.36	-50.09	50.09	45.40	4.69	10.688	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.42	-0.36	-50.09	50.09	44.95	5.14	9.752	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.42	-0.36	-50.09	50.09	44.50	5.59	8.967 CC, ES	
1,400.00	1,399.99	1,398.27	1,398.26	3.01	3.00	-29.87	-0.51	-51.76	50.66	44.65	6.01	8.434	
1,500.00	1,499.91	1,496.47	1,496.32	3.23	3.20	-32.32	-0.97	-56.79	52.44	46.03	6.41	8.184	
1,600.00	1,599.69	1,594.51	1,593.99	3.45	3.41	-36.04	-1.72	-65.15	55.59	48.78	6.81	8.161 SF	
1,700.00	1,699.27	1,692.32	1,691.09	3.68	3.64	-40.55	-2.76	-76.80	60.36	53.14	7.23	8.352	
1,800.00	1,798.57	1,789.82	1,787.43	3.92	3.89	-45.33	-4.10	-91.69	66.95	59.29	7.66	8.741	
1,900.00	1,897.54	1,886.94	1,882.84	4.19	4.17	-49.97	-5.72	-109.76	75.50	67.38	8.12	9.299	
2,000.00	1,996.09	1,983.61	1,977.14	4.48	4.50	-54.20	-7.62	-130.94	86.09	77.47	8.62	9.985	
2,100.00	2,094.16	2,082.02	2,072.59	4.80	4.87	-58.21	-9.76	-154.79	97.87	88.68	9.19	10.653	
2,149.23	2,142.25	2,130.79	2,119.89	4.97	5.07	-60.30	-10.82	-166.66	103.39	93.90	9.49	10.890	
2,200.00	2,191.77	2,181.09	2,168.66	5.15	5.27	-62.45	-11.92	-178.90	109.08	99.24	9.83	11.093	
2,300.00	2,289.31	2,280.15	2,264.72	5.52	5.70	-66.08	-14.08	-203.01	120.65	110.12	10.53	11.454	
2,400.00	2,386.85	2,379.22	2,360.78	5.91	6.13	-69.06	-16.25	-227.11	132.62	121.35	11.27	11.763	
2,500.00	2,484.39	2,478.28	2,456.84	6.31	6.58	-71.55	-18.41	-251.22	144.89	132.84	12.05	12.026	
2,600.00	2,581.93	2,577.34	2,552.90	6.72	7.04	-73.65	-20.57	-275.33	157.39	144.54	12.85	12.250	
2,700.00	2,679.46	2,676.41	2,648.96	7.14	7.51	-75.44	-22.74	-299.44	170.06	156.39	13.67	12.441	
2,800.00	2,777.00	2,775.47	2,745.03	7.57	7.99	-76.98	-24.90	-323.54	182.88	168.37	14.51	12.604	
2,900.00	2,874.54	2,874.53	2,841.09	8.00	8.47	-78.32	-27.06	-347.65	195.81	180.44	15.36	12.745	
3,000.00	2,972.08	2,973.60	2,937.15	8.44	8.95	-79.49	-29.23	-371.76	208.83	192.60	16.23	12.867	
3,100.00	3,069.62	3,072.66	3,033.21	8.88	9.44	-80.52	-31.39	-395.86	221.93	204.82	17.11	12.973	
3,200.00	3,167.16	3,171.73	3,129.27	9.32	9.93	-81.44	-33.55	-419.97	235.09	217.09	17.99	13.067	
3,300.00	3,264.70	3,270.79	3,225.33	9.77	10.43	-82.26	-35.71	-444.08	248.30	229.41	18.88	13.149	
3,400.00	3,362.24	3,369.85	3,321.39	10.22	10.93	-83.00	-37.88	-468.18	261.56	241.77	19.78	13.222	
3,500.00	3,459.77	3,468.92	3,417.46	10.67	11.43	-83.67	-40.04	-492.29	274.85	254.17	20.69	13.287	
3,600.00	3,557.31	3,567.98	3,513.52	11.13	11.93	-84.27	-42.20	-516.40	288.18	266.59	21.59	13.345	
3,700.00	3,654.85	3,667.04	3,609.58	11.58	12.43	-84.82	-44.37	-540.50	301.54	279.03	22.51	13.398	
3,800.00	3,752.39	3,766.11	3,705.64	12.04	12.94	-85.33	-46.53	-564.61	314.92	291.50	23.42	13.446	
3,900.00	3,849.93	3,865.17	3,801.70	12.50	13.45	-85.79	-48.69	-588.72	328.33	303.99	24.34	13.489	
4,000.00	3,947.47	3,964.24	3,897.76	12.96	13.95	-86.22	-50.86	-612.83	341.76	316.49	25.26	13.528	
4,100.00	4,045.01	4,063.30	3,993.82	13.42	14.46	-86.62	-53.02	-636.93	355.20	329.01	26.19	13.564	
4,200.00	4,142.54	4,162.36	4,089.89	13.89	14.97	-86.98	-55.18	-661.04	368.66	341.54	27.11	13.597	
4,300.00	4,240.08	4,261.43	4,185.95	14.35	15.48	-87.32	-57.34	-685.15	382.13	354.09	28.04	13.627	
4,400.00	4,337.62	4,360.49	4,282.01	14.82	15.99	-87.64	-59.51	-709.25	395.61	366.64	28.97	13.656	
4,500.00	4,435.16	4,459.55	4,378.07	15.28	16.51	-87.94	-61.67	-733.36	409.11	379.21	29.90	13.681	
4,600.00	4,532.70	4,558.62	4,474.13	15.75	17.02	-88.21	-63.83	-757.47	422.61	391.78	30.84	13.706	
4,700.00	4,630.24	4,657.68	4,570.19	16.21	17.53	-88.47	-66.00	-781.57	436.13	404.36	31.77	13.728	
4,800.00	4,727.78	4,756.75	4,666.25	16.68	18.05	-88.72	-68.16	-805.68	449.65	416.95	32.70	13.749	
4,900.00	4,825.32	4,855.81	4,762.32	17.15	18.56	-88.95	-70.32	-829.79	463.18	429.54	33.64	13.768	
5,000.00	4,922.85	4,954.87	4,858.38	17.62	19.08	-89.17	-72.49	-853.89	476.72	442.14	34.58	13.787	

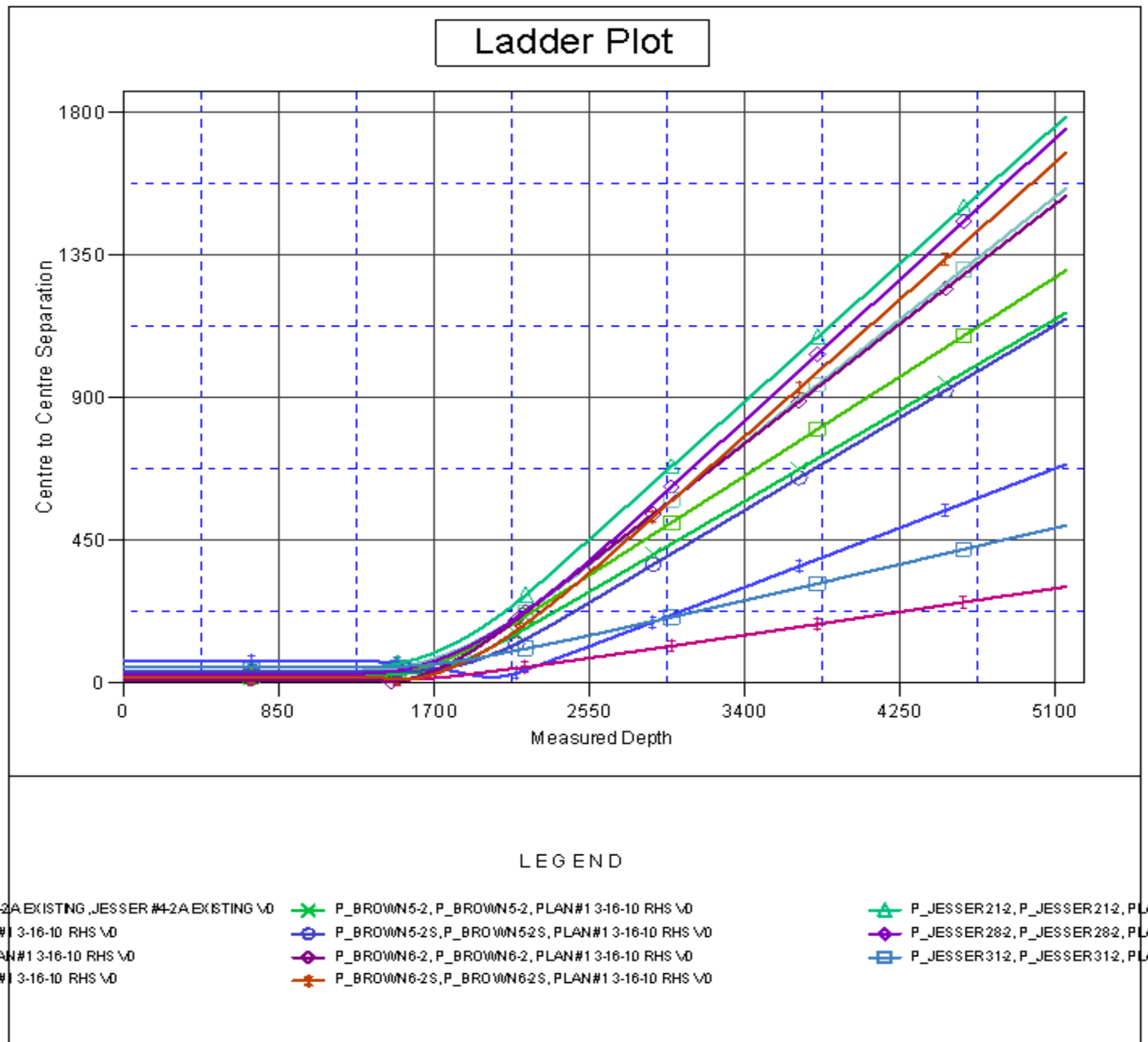
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_JESSER 18-2 PAD - P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,020.39	5,053.94	4,954.44	18.09	19.59	-89.37	-74.65	-878.00	490.26	454.75	35.52	13.804	
5,158.04	5,077.00	5,111.43	5,010.19	18.36	19.89	-89.49	-75.90	-891.99	498.12	462.06	36.06	13.813	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5158.00ft (Original Well Elev) Coordinates are relative to: P\_JESSER 4-2S  
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: 0.48°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_JESSER 4-2S
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_JESSER 18-2 PAD	<b>MD Reference:</b>	WELL @ 5158.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_JESSER 4-2S	<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_JESSER 4-2S	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-16-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5158.00ft (Original Well Elev) Coordinates are relative to: P\_JESSER 4-2S  
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: 0.48°

