



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_JESSER 18-2 PAD

P_BROWN 6-2S

P_BROWN 6-2S

Plan: PLAN #1 3-16-10 RHS

Standard Planning Report

16 March, 2010

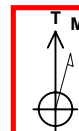




Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_JESSER 18-2 PAD
 Well: P_BROWN 6-2S
 Wellbore: P_BROWN 6-2S
 Section: SECTION 2 T1N R66W
 SHL: 1178 FNL 1152 FWL
 Design: PLAN #1 3-16-10 RHS
 Latitude: 40° 5' 2.659 N
 Longitude: 104° 44' 58.481 W
 GL: 5143.00
 KB: WELL @ 5158.00ft (Original Well Elev)



Weatherford



Azimuths to True North
 Magnetic North: 8.99°
 Magnetic Field
 Strength: 53095.8nT
 Dip Angle: 66.84°
 Date: 3/16/2010
 Model: IGRF2010

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4302.00	4418.57	PARKMAN
4792.00	4934.65	SUSSEX

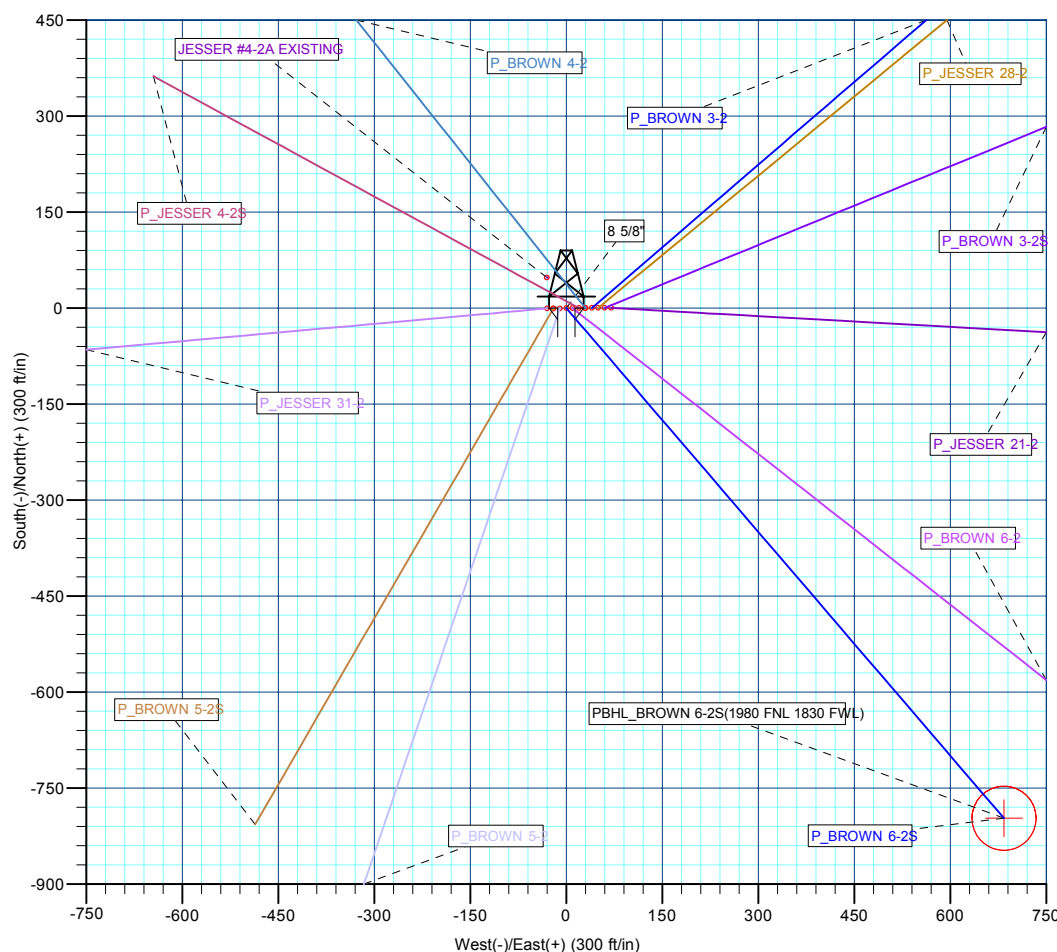
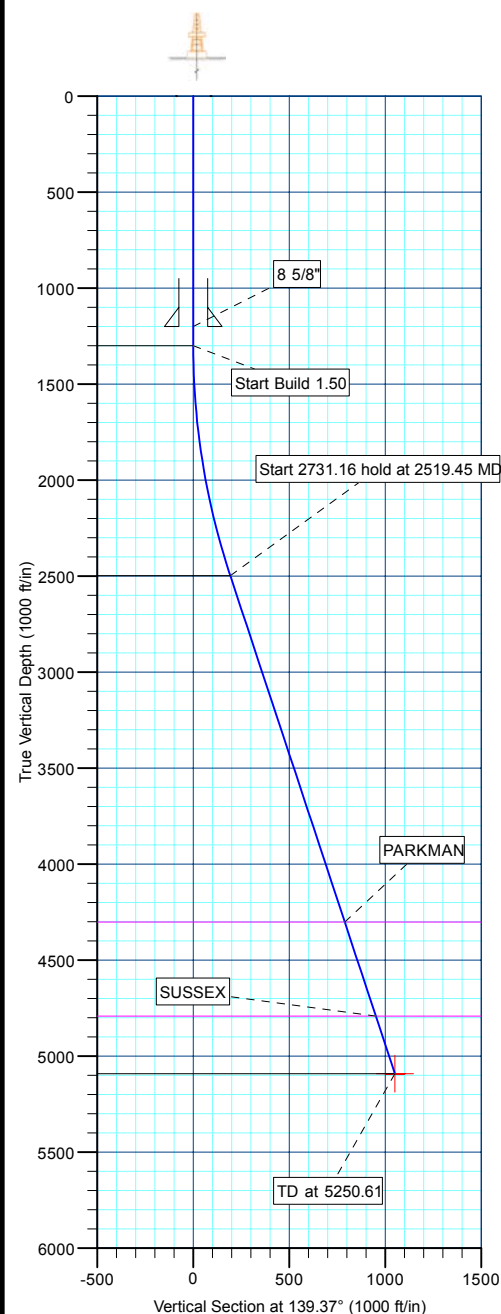
CASING DETAILS			
TVD	MD	Name	Size
1200.00	1200.00	8 5/8"	8.62

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
2519.45	18.29	139.37	2498.84	-146.48	125.68	1.50	139.37	193.01	Start 2731.16 hold at 2519.45 MD
5250.61	18.29	139.37	5092.00	-797.01	683.87	0.00	0.00	1050.20	TD at 5250.61

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
PBHL	5092.00	-797.01	683.87	40° 4' 54.782 N	104° 44' 49.682 W	Circle (Radius: 50.00)	

WELL DETAILS: P_BROWN 6-2S						
+N/-S	+E/-W	Northing	Ground Level: Easting	5143.00 Latitude	Longitude	Slot
0.00	0.00	1274360.64	3209971.74	40° 5' 2.659 N	104° 44' 58.481 W	

LEGEND	
—	JESSER #4-2A EXISTING, JESSER #4-2A EXISTING, JESSER #4-2A EXISTING V0
—	P_BROWN 3-2, P_BROWN 3-2, PLAN #1 3-16-10 RHS V0
—	P_BROWN 3-2S, P_BROWN 3-2S, PLAN #1 3-16-10 RHS V0
—	P_BROWN 4-2, P_BROWN 4-2, PLAN #1 3-16-10 RHS V0
—	P_BROWN 5-2, P_BROWN 5-2, PLAN #1 3-16-10 RHS V0
—	P_BROWN 5-2S, P_BROWN 5-2S, PLAN #1 3-16-10 RHS V0
—	P_BROWN 6-2, P_BROWN 6-2, PLAN #1 3-16-10 RHS V0
—	P_JESSER 21-2, P_JESSER 21-2, PLAN #1 3-16-10 RHS V0
—	P_JESSER 28-2, P_JESSER 28-2, PLAN #1 3-16-10 RHS V0
—	P_JESSER 31-2, P_JESSER 31-2, PLAN #1 3-16-10 RHS V0
—	P_JESSER 4-2S, P_JESSER 4-2S, PLAN #1 3-16-10 RHS V0
—	PLAN #1 3-16-10 RHS



Plan: PLAN #1 3-16-10 RHS (P_BROWN 6-2S/P_BROWN 6-2S)	
Created By: Robert H. Scott	Date: 15:42, March 16 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2S		
Design:	PLAN #1 3-16-10 RHS		

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

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

Well	P_BROWN 6-2S					
Well Position	+N/-S	-0.38 ft	Northing:	1,274,360.64 ft	Latitude:	40° 5' 2.659 N
	+E/-W	-40.01 ft	Easting:	3,209,971.74 ft	Longitude:	104° 44' 58.481 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,143.00 ft

Wellbore	P_BROWN 6-2S				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/16/2010	9.00	66.84	53,096

Design	PLAN #1 3-16-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	139.37

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,519.45	18.29	139.37	2,498.84	-146.48	125.68	1.50	1.50	0.00	139.37	
5,250.61	18.29	139.37	5,092.00	-797.01	683.87	0.00	0.00	0.00	0.00	PBHL_BROWN 6-2

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2S		
Design:	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)
Start Build 1.50									
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	139.37	1,399.99	-0.99	0.85	1.31	1.50	1.50	0.00
1,500.00	3.00	139.37	1,499.91	-3.97	3.41	5.23	1.50	1.50	0.00
1,600.00	4.50	139.37	1,599.69	-8.94	7.67	11.77	1.50	1.50	0.00
1,700.00	6.00	139.37	1,699.27	-15.88	13.63	20.92	1.50	1.50	0.00
1,800.00	7.50	139.37	1,798.57	-24.80	21.28	32.68	1.50	1.50	0.00
1,900.00	9.00	139.37	1,897.54	-35.69	30.62	47.03	1.50	1.50	0.00
2,000.00	10.50	139.37	1,996.09	-48.54	41.65	63.96	1.50	1.50	0.00
2,100.00	12.00	139.37	2,094.16	-63.35	54.35	83.47	1.50	1.50	0.00
2,200.00	13.50	139.37	2,191.70	-80.10	68.73	105.54	1.50	1.50	0.00
2,300.00	15.00	139.37	2,288.62	-98.78	84.75	130.15	1.50	1.50	0.00
2,400.00	16.50	139.37	2,384.86	-119.38	102.43	157.30	1.50	1.50	0.00
2,500.00	18.00	139.37	2,480.36	-141.88	121.74	186.95	1.50	1.50	0.00
Start 2731.16 hold at 2519.45 MD									
2,519.45	18.29	139.37	2,498.84	-146.48	125.68	193.01	1.50	1.50	0.00
2,600.00	18.29	139.37	2,575.32	-165.66	142.15	218.29	0.00	0.00	0.00
2,700.00	18.29	139.37	2,670.27	-189.48	162.58	249.67	0.00	0.00	0.00
2,800.00	18.29	139.37	2,765.21	-213.30	183.02	281.06	0.00	0.00	0.00
2,900.00	18.29	139.37	2,860.16	-237.12	203.46	312.45	0.00	0.00	0.00
3,000.00	18.29	139.37	2,955.11	-260.94	223.90	343.83	0.00	0.00	0.00
3,100.00	18.29	139.37	3,050.06	-284.76	244.34	375.22	0.00	0.00	0.00
3,200.00	18.29	139.37	3,145.00	-308.58	264.77	406.60	0.00	0.00	0.00
3,300.00	18.29	139.37	3,239.95	-332.40	285.21	437.99	0.00	0.00	0.00
3,400.00	18.29	139.37	3,334.90	-356.22	305.65	469.37	0.00	0.00	0.00
3,500.00	18.29	139.37	3,429.84	-380.03	326.09	500.76	0.00	0.00	0.00
3,600.00	18.29	139.37	3,524.79	-403.85	346.53	532.14	0.00	0.00	0.00
3,700.00	18.29	139.37	3,619.74	-427.67	366.96	563.53	0.00	0.00	0.00
3,800.00	18.29	139.37	3,714.69	-451.49	387.40	594.92	0.00	0.00	0.00
3,900.00	18.29	139.37	3,809.63	-475.31	407.84	626.30	0.00	0.00	0.00
4,000.00	18.29	139.37	3,904.58	-499.13	428.28	657.69	0.00	0.00	0.00
4,100.00	18.29	139.37	3,999.53	-522.95	448.71	689.07	0.00	0.00	0.00
4,200.00	18.29	139.37	4,094.47	-546.77	469.15	720.46	0.00	0.00	0.00
4,300.00	18.29	139.37	4,189.42	-570.59	489.59	751.84	0.00	0.00	0.00
4,400.00	18.29	139.37	4,284.37	-594.41	510.03	783.23	0.00	0.00	0.00
PARKMAN									
4,418.57	18.29	139.37	4,302.00	-598.83	513.82	789.06	0.00	0.00	0.00
4,500.00	18.29	139.37	4,379.32	-618.23	530.47	814.61	0.00	0.00	0.00
4,600.00	18.29	139.37	4,474.26	-642.04	550.90	846.00	0.00	0.00	0.00
4,700.00	18.29	139.37	4,569.21	-665.86	571.34	877.39	0.00	0.00	0.00
4,800.00	18.29	139.37	4,664.16	-689.68	591.78	908.77	0.00	0.00	0.00
4,900.00	18.29	139.37	4,759.10	-713.50	612.22	940.16	0.00	0.00	0.00
SUSSEX									
4,934.65	18.29	139.37	4,792.00	-721.75	619.30	951.03	0.00	0.00	0.00
5,000.00	18.29	139.37	4,854.05	-737.32	632.65	971.54	0.00	0.00	0.00
5,100.00	18.29	139.37	4,949.00	-761.14	653.09	1,002.93	0.00	0.00	0.00
5,200.00	18.29	139.37	5,043.94	-784.96	673.53	1,034.31	0.00	0.00	0.00
TD at 5250.61 - PBHL_BROWN 6-2S(1980 FNL 1830 FWL)									
5,250.61	18.29	139.37	5,092.00	-797.01	683.87	1,050.20	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2S		
Design:	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 6-2S(- plan hits target center - Circle (radius 50.00)	0.00	0.00	5,092.00	-797.01	683.87	1,273,569.45	3,210,662.33	40° 4' 54.782 N	104° 44' 49.682 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,200.00	1,200.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,418.57	4,302.00	PARKMAN				
4,934.65	4,792.00	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	
2,519.45	2,498.84	-146.48	125.68	Start 2731.16 hold at 2519.45 MD	
5,250.61	5,092.00	-797.01	683.87	TD at 5250.61	



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_JESSER 18-2 PAD
P_BROWN 6-2S**

**P_BROWN 6-2S
PLAN #1 3-16-10 RHS**

Anticollision Report

16 March, 2010



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 3-16-10 RHS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 3/16/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	5,250.61	PLAN #1 3-16-10 RHS (P_BROWN 6-2S)	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 -	1,300.00	1,279.00	56.62	4.67	1.090	Level 2, CC
JESSER #4-2A EXISTING - JESSER #4-2A EXISTING -	1,500.00	1,478.91	61.81	1.55	1.026	Level 2, ES, SF
P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS	1,300.00	1,300.00	40.01	34.43	7.164	CC, ES
P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS	1,500.00	1,497.48	42.75	36.36	6.690	SF
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,300.00	1,300.00	59.88	54.29	10.721	CC
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,400.00	1,398.54	60.25	54.25	10.047	ES
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,600.00	1,595.09	64.40	57.63	9.508	SF
P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RHS	1,549.47	1,549.58	23.13	16.52	3.497	CC, ES, SF
P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RHS	1,300.00	1,300.00	10.08	4.49	1.805	CC, ES, SF
P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 F	1,300.00	1,300.00	20.15	14.56	3.608	CC, ES, SF
P_BROWN 6-2 - P_BROWN 6-2 - PLAN #1 3-16-10 RHS	1,300.00	1,300.00	9.79	4.21	1.753	CC, ES
P_BROWN 6-2 - P_BROWN 6-2 - PLAN #1 3-16-10 RHS	1,400.00	1,399.72	10.31	4.33	1.723	SF
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	69.95	64.37	12.524	CC, ES
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,500.00	1,495.09	73.45	67.09	11.551	SF
P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	49.81	44.22	8.917	CC, ES
P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 R	1,500.00	1,496.94	52.42	46.04	8.206	SF
P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	30.22	24.64	5.411	CC, ES, SF
P_JESSER 4-2S - P_JESSER 4-2S - PLAN #1 3-16-10 F	1,544.87	1,545.01	12.50	5.91	1.899	CC, ES, SF

Offset Design WELD_JESSER 18-2 PAD - JESSER #4-2A EXISTING - JESSER #4-2A EXISTING - JESSER #4-2A E												
Survey Program: 0-UNKNOWN												
Offset Site Error: 0.00 ft												
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
0.00	0.00	0.00	0.00	0.00	0.00	-32.59	47.71	-30.50	60.39			
100.00	100.00	79.00	79.00	0.10	1.58	-32.59	47.71	-30.50	56.62	54.95	1.68	33.794
200.00	200.00	179.00	179.00	0.32	5.16	-32.59	47.71	-30.50	56.62	51.14	5.48	10.332
300.00	300.00	279.00	279.00	0.55	9.16	-32.59	47.71	-30.50	56.62	46.92	9.71	5.834
400.00	400.00	379.00	379.00	0.77	13.16	-32.59	47.71	-30.50	56.62	42.69	13.93	4.065
500.00	500.00	479.00	479.00	0.99	17.16	-32.59	47.71	-30.50	56.62	38.47	18.15	3.119
600.00	600.00	579.00	579.00	1.22	21.16	-32.59	47.71	-30.50	56.62	34.24	22.38	2.530
700.00	700.00	679.00	679.00	1.44	25.16	-32.59	47.71	-30.50	56.62	30.02	26.60	2.128
800.00	800.00	779.00	779.00	1.67	29.16	-32.59	47.71	-30.50	56.62	25.79	30.83	1.837
900.00	900.00	879.00	879.00	1.89	33.16	-32.59	47.71	-30.50	56.62	21.57	35.05	1.615

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,000.00	1,000.00	979.00	979.00	2.12	37.16	-32.59	47.71	-30.50	56.62	17.35	39.28	1.442	Level 3
1,100.00	1,100.00	1,079.00	1,079.00	2.34	41.16	-32.59	47.71	-30.50	56.62	13.12	43.50	1.302	Level 3
1,200.00	1,200.00	1,179.00	1,179.00	2.57	45.16	-32.59	47.71	-30.50	56.62	8.90	47.73	1.186	Level 2
1,300.00	1,300.00	1,279.00	1,279.00	2.79	49.16	-32.59	47.71	-30.50	56.62	4.67	51.95	1.090	Level 2, CC
1,400.00	1,399.99	1,378.99	1,378.99	2.99	53.16	-172.14	47.71	-30.50	57.92	1.78	56.14	1.032	Level 2
1,500.00	1,499.91	1,478.91	1,478.91	3.17	57.16	-172.63	47.71	-30.50	61.81	1.55	60.26	1.026	Level 2, ES, SF
1,600.00	1,599.69	1,578.69	1,578.69	3.36	61.15	-173.32	47.71	-30.50	68.30	3.97	64.33	1.062	Level 2
1,700.00	1,699.27	1,678.27	1,678.27	3.57	65.13	-174.09	47.71	-30.50	77.40	9.06	68.34	1.133	Level 2
1,800.00	1,798.57	1,777.57	1,777.57	3.79	69.10	-174.86	47.71	-30.50	89.10	16.82	72.28	1.233	Level 2
1,900.00	1,897.54	1,876.54	1,876.54	4.04	73.06	-175.55	47.71	-30.50	103.40	27.27	76.13	1.358	Level 3
2,000.00	1,996.09	1,975.09	1,975.09	4.32	77.00	-176.16	47.71	-30.50	120.29	40.40	79.89	1.506	
2,100.00	2,094.16	2,073.16	2,073.16	4.63	80.93	-176.68	47.71	-30.50	139.76	56.21	83.55	1.673	
2,200.00	2,191.70	2,170.70	2,170.70	4.98	84.83	-177.11	47.71	-30.50	161.80	74.71	87.09	1.858	
2,300.00	2,288.62	2,267.62	2,267.62	5.37	88.70	-177.48	47.71	-30.50	186.39	95.87	90.51	2.059	
2,400.00	2,384.86	2,363.86	2,363.86	5.81	92.55	-177.78	47.71	-30.50	213.51	119.70	93.81	2.276	
2,500.00	2,480.36	2,459.36	2,459.36	6.31	96.37	-178.04	47.71	-30.50	243.15	146.18	96.96	2.508	
2,519.45	2,498.84	2,477.84	2,477.84	6.41	97.11	-178.08	47.71	-30.50	249.20	151.64	97.56	2.554	
2,600.00	2,575.32	2,554.32	2,554.32	6.84	100.17	-178.26	47.71	-30.50	274.47	173.80	100.67	2.726	
2,700.00	2,670.27	2,649.27	2,649.27	7.40	103.97	-178.44	47.71	-30.50	305.84	201.30	104.54	2.926	
2,800.00	2,765.21	2,744.21	2,744.21	7.97	107.77	-178.58	47.71	-30.50	337.22	228.81	108.41	3.111	
2,900.00	2,860.16	2,839.16	2,839.16	8.55	111.57	-178.70	47.71	-30.50	368.60	256.31	112.29	3.283	
3,000.00	2,955.11	2,934.11	2,934.11	9.15	115.36	-178.80	47.71	-30.50	399.98	283.80	116.17	3.443	
3,100.00	3,050.06	3,029.06	3,029.06	9.75	119.16	-178.89	47.71	-30.50	431.36	311.30	120.06	3.593	
3,200.00	3,145.00	3,124.00	3,124.00	10.36	122.96	-178.97	47.71	-30.50	462.74	338.79	123.95	3.733	
3,300.00	3,239.95	3,218.95	3,218.95	10.98	126.76	-179.03	47.71	-30.50	494.12	366.28	127.84	3.865	
3,400.00	3,334.90	3,313.90	3,313.90	11.60	130.56	-179.09	47.71	-30.50	525.50	393.76	131.74	3.989	
3,500.00	3,429.84	3,408.84	3,408.84	12.22	134.35	-179.14	47.71	-30.50	556.88	421.25	135.63	4.106	
3,600.00	3,524.79	3,503.79	3,503.79	12.85	138.15	-179.19	47.71	-30.50	588.26	448.73	139.53	4.216	
3,700.00	3,619.74	3,598.74	3,598.74	13.48	141.95	-179.23	47.71	-30.50	619.65	476.22	143.43	4.320	
3,800.00	3,714.69	3,693.69	3,693.69	14.12	145.75	-179.27	47.71	-30.50	651.03	503.70	147.33	4.419	
3,900.00	3,809.63	3,788.63	3,788.63	14.75	149.55	-179.30	47.71	-30.50	682.41	531.18	151.24	4.512	
4,000.00	3,904.58	3,883.58	3,883.58	15.39	153.34	-179.33	47.71	-30.50	713.80	558.66	155.14	4.601	
4,100.00	3,999.53	3,978.53	3,978.53	16.03	157.14	-179.36	47.71	-30.50	745.18	586.13	159.05	4.685	
4,200.00	4,094.47	4,073.47	4,073.47	16.67	160.94	-179.38	47.71	-30.50	776.56	613.61	162.95	4.766	
4,300.00	4,189.42	4,168.42	4,168.42	17.31	164.74	-179.41	47.71	-30.50	807.95	641.09	166.86	4.842	
4,400.00	4,284.37	4,263.37	4,263.37	17.96	168.53	-179.43	47.71	-30.50	839.33	668.56	170.77	4.915	
4,500.00	4,379.32	4,358.32	4,358.32	18.60	172.33	-179.45	47.71	-30.50	870.72	696.04	174.68	4.985	
4,600.00	4,474.26	4,453.26	4,453.26	19.25	176.13	-179.47	47.71	-30.50	902.10	723.51	178.59	5.051	
4,700.00	4,569.21	4,548.21	4,548.21	19.90	179.93	-179.49	47.71	-30.50	933.49	750.98	182.50	5.115	
4,800.00	4,664.16	4,643.16	4,643.16	20.54	183.73	-179.50	47.71	-30.50	964.87	778.46	186.41	5.176	
4,900.00	4,759.10	4,738.10	4,738.10	21.19	187.52	-179.52	47.71	-30.50	996.25	805.93	190.32	5.235	
5,000.00	4,854.05	4,833.05	4,833.05	21.84	191.32	-179.53	47.71	-30.50	1,027.64	833.40	194.24	5.291	
5,100.00	4,949.00	4,928.00	4,928.00	22.49	195.12	-179.55	47.71	-30.50	1,059.02	860.87	198.15	5.345	
5,200.00	5,043.94	5,022.94	5,022.94	23.14	198.92	-179.56	47.71	-30.50	1,090.41	888.34	202.06	5.396	
5,250.61	5,092.00	5,071.00	5,071.00	23.47	200.84	-179.57	47.71	-30.50	1,106.29	902.25	204.04	5.422	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	89.45	0.38	40.01	40.01				
100.00	100.00	100.00	100.00	0.10	0.10	89.45	0.38	40.01	40.01	39.82	0.19	209.444	
200.00	200.00	200.00	200.00	0.32	0.32	89.45	0.38	40.01	40.01	39.37	0.64	62.466	
300.00	300.00	300.00	300.00	0.55	0.55	89.45	0.38	40.01	40.01	38.92	1.09	36.707	
400.00	400.00	400.00	400.00	0.77	0.77	89.45	0.38	40.01	40.01	38.47	1.54	25.989	
500.00	500.00	500.00	500.00	0.99	0.99	89.45	0.38	40.01	40.01	38.03	1.99	20.116	
600.00	600.00	600.00	600.00	1.22	1.22	89.45	0.38	40.01	40.01	37.58	2.44	16.408	
700.00	700.00	700.00	700.00	1.44	1.44	89.45	0.38	40.01	40.01	37.13	2.89	13.854	
800.00	800.00	800.00	800.00	1.67	1.67	89.45	0.38	40.01	40.01	36.68	3.34	11.988	
900.00	900.00	900.00	900.00	1.89	1.89	89.45	0.38	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	89.45	0.38	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	89.45	0.38	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	89.45	0.38	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	89.45	0.38	40.01	40.01	34.43	5.59	7.164 CC, ES	
1,400.00	1,399.99	1,398.89	1,398.87	2.99	3.01	-52.86	1.49	41.31	40.55	34.54	6.00	6.757	
1,500.00	1,499.91	1,497.48	1,497.33	3.17	3.23	-61.13	4.82	45.17	42.75	36.36	6.39	6.690 SF	
1,600.00	1,599.69	1,595.47	1,594.95	3.36	3.45	-72.68	10.31	51.55	48.15	41.36	6.79	7.088	
1,700.00	1,699.27	1,692.57	1,691.35	3.57	3.68	-84.44	17.90	60.36	58.21	51.00	7.21	8.070	
1,800.00	1,798.57	1,788.51	1,786.15	3.79	3.93	-94.20	27.49	71.50	73.56	65.91	7.65	9.612	
1,900.00	1,897.54	1,883.03	1,879.01	4.04	4.20	-101.46	38.96	84.82	94.09	85.97	8.11	11.596	
2,000.00	1,996.09	1,975.89	1,969.63	4.32	4.51	-106.64	52.16	100.15	119.43	110.83	8.60	13.887	
2,100.00	2,094.16	2,071.00	2,062.07	4.63	4.85	-110.67	66.77	117.12	147.99	138.86	9.13	16.210	
2,200.00	2,191.70	2,165.78	2,154.18	4.98	5.21	-114.04	81.33	134.04	178.13	168.44	9.69	18.377	
2,300.00	2,288.62	2,259.96	2,245.72	5.37	5.58	-116.96	95.80	150.84	209.93	199.63	10.29	20.397	
2,400.00	2,384.86	2,353.49	2,336.62	5.81	5.97	-119.53	110.17	167.53	243.43	232.51	10.92	22.284	
2,500.00	2,480.36	2,446.29	2,426.81	6.31	6.36	-121.84	124.43	184.09	278.71	267.12	11.59	24.053	
2,519.45	2,498.84	2,464.25	2,444.26	6.41	6.44	-122.26	127.19	187.30	285.78	274.06	11.72	24.384	
2,600.00	2,575.32	2,538.57	2,516.49	6.84	6.76	-124.18	138.61	200.56	315.36	303.07	12.30	25.646	
2,700.00	2,670.27	2,630.83	2,606.17	7.40	7.17	-126.13	152.78	217.02	352.45	339.42	13.03	27.053	
2,800.00	2,765.21	2,723.10	2,695.84	7.97	7.58	-127.71	166.96	233.49	389.82	376.05	13.77	28.303	
2,900.00	2,860.16	2,815.36	2,785.51	8.55	8.00	-129.01	181.13	249.95	427.40	412.87	14.53	29.416	
3,000.00	2,955.11	2,907.63	2,875.18	9.15	8.42	-130.10	195.31	266.42	465.15	449.85	15.30	30.411	
3,100.00	3,050.06	2,999.89	2,964.85	9.75	8.84	-131.03	209.49	282.88	503.01	486.94	16.07	31.302	
3,200.00	3,145.00	3,092.16	3,054.52	10.36	9.27	-131.83	223.66	299.35	540.98	524.13	16.85	32.104	
3,300.00	3,239.95	3,184.42	3,144.19	10.98	9.70	-132.53	237.84	315.81	579.03	561.39	17.64	32.829	
3,400.00	3,334.90	3,276.69	3,233.86	11.60	10.14	-133.14	252.01	332.27	617.14	598.71	18.43	33.486	
3,500.00	3,429.84	3,368.95	3,323.53	12.22	10.57	-133.68	266.19	348.74	655.30	636.07	19.23	34.084	
3,600.00	3,524.79	3,461.22	3,413.20	12.85	11.01	-134.16	280.36	365.20	693.51	673.48	20.03	34.629	
3,700.00	3,619.74	3,553.48	3,502.87	13.48	11.45	-134.59	294.54	381.67	731.75	710.92	20.83	35.129	
3,800.00	3,714.69	3,645.75	3,592.54	14.12	11.89	-134.98	308.71	398.13	770.03	748.39	21.64	35.588	
3,900.00	3,809.63	3,738.01	3,682.21	14.75	12.33	-135.33	322.89	414.60	808.33	785.89	22.45	36.011	
4,000.00	3,904.58	3,830.28	3,771.88	15.39	12.77	-135.65	337.06	431.06	846.66	823.40	23.26	36.401	
4,100.00	3,999.53	3,922.54	3,861.55	16.03	13.22	-135.94	351.24	447.53	885.01	860.94	24.07	36.763	
4,200.00	4,094.47	4,014.81	3,951.22	16.67	13.66	-136.21	365.42	463.99	923.38	898.49	24.89	37.099	
4,300.00	4,189.42	4,107.07	4,040.89	17.31	14.11	-136.46	379.59	480.45	961.76	936.05	25.71	37.412	
4,400.00	4,284.37	4,199.33	4,130.56	17.96	14.55	-136.68	393.77	496.92	1,000.16	973.63	26.53	37.704	
4,500.00	4,379.32	4,291.60	4,220.23	18.60	15.00	-136.89	407.94	513.38	1,038.56	1,011.22	27.35	37.976	
4,600.00	4,474.26	4,383.86	4,309.90	19.25	15.45	-137.09	422.12	529.85	1,076.98	1,048.81	28.17	38.231	
4,700.00	4,569.21	4,476.13	4,399.57	19.90	15.90	-137.27	436.29	546.31	1,115.41	1,086.42	28.99	38.471	
4,800.00	4,664.16	4,568.39	4,489.24	20.54	16.35	-137.44	450.47	562.78	1,153.85	1,124.03	29.82	38.696	
4,900.00	4,759.10	4,660.66	4,578.91	21.19	16.79	-137.60	464.64	579.24	1,192.30	1,161.66	30.64	38.908	
5,000.00	4,854.05	4,752.92	4,668.58	21.84	17.24	-137.75	478.82	595.70	1,230.75	1,199.28	31.47	39.108	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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									
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	4,949.00	4,845.19	4,758.25	22.49	17.69	-137.89	492.99	612.17	1,269.22	1,236.92	32.30	39.297	
5,200.00	5,043.94	4,937.45	4,847.92	23.14	18.15	-138.02	507.17	628.63	1,307.68	1,274.56	33.13	39.475	
5,250.61	5,092.00	4,984.15	4,893.31	23.47	18.37	-138.08	514.34	636.97	1,327.15	1,293.61	33.55	39.562	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	89.66	0.35	59.88	59.88				
100.00	100.00	100.00	100.00	0.10	0.10	89.66	0.35	59.88	59.88	59.69	0.19	313.424	
200.00	200.00	200.00	200.00	0.32	0.32	89.66	0.35	59.88	59.88	59.24	0.64	93.477	
300.00	300.00	300.00	300.00	0.55	0.55	89.66	0.35	59.88	59.88	58.79	1.09	54.930	
400.00	400.00	400.00	400.00	0.77	0.77	89.66	0.35	59.88	59.88	58.34	1.54	38.892	
500.00	500.00	500.00	500.00	0.99	0.99	89.66	0.35	59.88	59.88	57.89	1.99	30.103	
600.00	600.00	600.00	600.00	1.22	1.22	89.66	0.35	59.88	59.88	57.44	2.44	24.554	
700.00	700.00	700.00	700.00	1.44	1.44	89.66	0.35	59.88	59.88	56.99	2.89	20.732	
800.00	800.00	800.00	800.00	1.67	1.67	89.66	0.35	59.88	59.88	56.54	3.34	17.940	
900.00	900.00	900.00	900.00	1.89	1.89	89.66	0.35	59.88	59.88	56.09	3.79	15.811	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.66	0.35	59.88	59.88	55.64	4.24	14.133	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.66	0.35	59.88	59.88	55.19	4.69	12.777	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.66	0.35	59.88	59.88	54.74	5.14	11.659	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.66	0.35	59.88	59.88	54.29	5.59	10.721 CC	
1,400.00	1,399.99	1,398.54	1,398.53	2.99	3.01	-51.09	0.83	61.06	60.25	54.25	6.00	10.047 ES	
1,500.00	1,499.91	1,496.95	1,496.87	3.17	3.21	-55.12	2.28	64.58	61.56	55.18	6.38	9.650	
1,600.00	1,599.69	1,595.09	1,594.80	3.36	3.43	-61.38	4.67	70.42	64.40	57.63	6.77	9.508 SF	
1,700.00	1,699.27	1,692.83	1,692.13	3.57	3.65	-69.09	8.00	78.55	69.55	62.36	7.19	9.679	
1,800.00	1,798.57	1,790.03	1,788.69	3.79	3.89	-77.24	12.25	88.93	77.76	70.14	7.62	10.201	
1,900.00	1,897.54	1,886.58	1,884.27	4.04	4.14	-84.92	17.39	101.47	89.52	81.43	8.09	11.061	
2,000.00	1,996.09	1,982.34	1,978.72	4.32	4.41	-91.57	23.40	116.12	104.99	96.39	8.60	12.209	
2,100.00	2,094.16	2,077.22	2,071.87	4.63	4.70	-97.03	30.23	132.80	124.12	114.98	9.15	13.569	
2,200.00	2,191.70	2,171.09	2,163.56	4.98	5.03	-101.40	37.85	151.39	146.75	137.01	9.74	15.066	
2,300.00	2,288.62	2,263.87	2,253.67	5.37	5.38	-104.83	46.22	171.81	172.69	162.31	10.38	16.633	
2,400.00	2,384.86	2,355.44	2,342.06	5.81	5.76	-107.51	55.29	193.95	201.78	190.70	11.08	18.216	
2,500.00	2,480.36	2,445.74	2,428.64	6.31	6.17	-109.60	65.01	217.70	233.85	222.03	11.82	19.778	
2,519.45	2,498.84	2,463.78	2,445.87	6.41	6.26	-109.97	67.04	222.64	240.41	228.43	11.98	20.070	
2,600.00	2,575.32	2,539.19	2,517.88	6.84	6.64	-111.73	75.52	243.33	267.77	255.13	12.65	21.172	
2,700.00	2,670.27	2,632.79	2,607.28	7.40	7.12	-113.47	86.04	269.00	302.00	288.49	13.50	22.366	
2,800.00	2,765.21	2,726.40	2,696.69	7.97	7.61	-114.86	96.56	294.68	336.41	322.03	14.38	23.391	
2,900.00	2,860.16	2,820.01	2,786.09	8.55	8.11	-115.99	107.08	320.35	370.97	355.69	15.28	24.274	
3,000.00	2,955.11	2,913.62	2,875.49	9.15	8.62	-116.92	117.60	346.03	405.64	389.44	16.20	25.040	
3,100.00	3,050.06	3,007.23	2,964.89	9.75	9.14	-117.72	128.12	371.70	440.39	423.26	17.13	25.707	
3,200.00	3,145.00	3,100.84	3,054.30	10.36	9.67	-118.39	138.64	397.38	475.20	457.12	18.07	26.291	
3,300.00	3,239.95	3,194.45	3,143.70	10.98	10.20	-118.97	149.16	423.05	510.06	491.03	19.03	26.806	
3,400.00	3,334.90	3,288.06	3,233.10	11.60	10.73	-119.48	159.68	448.73	544.96	524.97	19.99	27.261	
3,500.00	3,429.84	3,381.67	3,322.50	12.22	11.27	-119.93	170.20	474.41	579.89	558.93	20.96	27.667	
3,600.00	3,524.79	3,475.28	3,411.90	12.85	11.82	-120.33	180.72	500.08	614.85	592.92	21.94	28.029	
3,700.00	3,619.74	3,568.88	3,501.31	13.48	12.36	-120.68	191.24	525.76	649.84	626.92	22.92	28.355	
3,800.00	3,714.69	3,662.49	3,590.71	14.12	12.91	-121.00	201.76	551.43	684.84	660.94	23.90	28.649	
3,900.00	3,809.63	3,756.10	3,680.11	14.75	13.46	-121.29	212.28	577.11	719.87	694.97	24.90	28.916	
4,000.00	3,904.58	3,849.71	3,769.51	15.39	14.02	-121.55	222.80	602.78	754.90	729.01	25.89	29.158	
4,100.00	3,999.53	3,943.32	3,858.91	16.03	14.57	-121.78	233.32	628.46	789.95	763.06	26.89	29.379	
4,200.00	4,094.47	4,036.93	3,948.32	16.67	15.13	-122.00	243.84	654.14	825.01	797.12	27.89	29.582	
4,300.00	4,189.42	4,130.54	4,037.72	17.31	15.68	-122.20	254.36	679.81	860.08	831.18	28.89	29.768	
4,400.00	4,284.37	4,224.15	4,127.12	17.96	16.24	-122.38	264.88	705.49	895.15	865.25	29.90	29.939	
4,500.00	4,379.32	4,317.76	4,216.52	18.60	16.80	-122.55	275.40	731.16	930.24	899.33	30.91	30.098	
4,600.00	4,474.26	4,411.36	4,305.92	19.25	17.36	-122.71	285.92	756.84	965.33	933.41	31.92	30.244	
4,700.00	4,569.21	4,504.97	4,395.33	19.90	17.93	-122.86	296.44	782.51	1,000.43	967.50	32.93	30.381	
4,800.00	4,664.16	4,598.58	4,484.73	20.54	18.49	-123.00	306.96	808.19	1,035.53	1,001.59	33.94	30.507	
4,900.00	4,759.10	4,692.19	4,574.13	21.19	19.05	-123.12	317.48	833.87	1,070.64	1,035.68	34.96	30.625	
5,000.00	4,854.05	4,785.80	4,663.53	21.84	19.62	-123.24	328.00	859.54	1,105.75	1,069.77	35.98	30.736	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	4,949.00	4,879.41	4,752.93	22.49	20.18	-123.36	338.52	885.22	1,140.86	1,103.87	36.99	30.839	
5,200.00	5,043.94	4,973.02	4,842.34	23.14	20.75	-123.46	349.04	910.89	1,175.98	1,137.97	38.01	30.937	
5,250.61	5,092.00	5,020.40	4,887.58	23.47	21.03	-123.51	354.36	923.89	1,193.76	1,155.23	38.53	30.984	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
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	29.94	29.94				
100.00	100.00	100.00	100.00	0.10	0.10	90.00	0.00	29.94	29.94	29.75	0.19	156.709	
200.00	200.00	200.00	200.00	0.32	0.32	90.00	0.00	29.94	29.94	29.30	0.64	46.738	
300.00	300.00	300.00	300.00	0.55	0.55	90.00	0.00	29.94	29.94	28.85	1.09	27.465	
400.00	400.00	400.00	400.00	0.77	0.77	90.00	0.00	29.94	29.94	28.40	1.54	19.446	
500.00	500.00	500.00	500.00	0.99	0.99	90.00	0.00	29.94	29.94	27.95	1.99	15.051	
600.00	600.00	600.00	600.00	1.22	1.22	90.00	0.00	29.94	29.94	27.50	2.44	12.277	
700.00	700.00	700.00	700.00	1.44	1.44	90.00	0.00	29.94	29.94	27.05	2.89	10.366	
800.00	800.00	800.00	800.00	1.67	1.67	90.00	0.00	29.94	29.94	26.60	3.34	8.970	
900.00	900.00	900.00	900.00	1.89	1.89	90.00	0.00	29.94	29.94	26.15	3.79	7.905	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	0.00	29.94	29.94	25.70	4.24	7.066	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	90.00	0.00	29.94	29.94	25.25	4.69	6.389	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	90.00	0.00	29.94	29.94	24.80	5.14	5.829	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	90.00	0.00	29.94	29.94	24.35	5.59	5.360	
1,400.00	1,399.99	1,400.56	1,400.53	2.99	3.02	-54.25	1.38	28.84	28.09	22.09	6.01	4.677	
1,500.00	1,499.91	1,500.52	1,500.36	3.17	3.24	-72.57	5.49	25.57	24.11	17.70	6.41	3.761	
1,549.47	1,549.29	1,549.58	1,549.26	3.27	3.35	-88.77	8.50	23.18	23.13	16.52	6.62	3.497	CC, ES, SF
1,600.00	1,599.69	1,599.32	1,598.77	3.36	3.46	-108.49	12.23	20.22	24.62	17.80	6.83	3.607	
1,700.00	1,699.27	1,696.40	1,695.14	3.57	3.70	-139.90	21.43	12.90	37.55	30.33	7.22	5.199	
1,800.00	1,798.57	1,791.27	1,788.87	3.79	3.95	-155.55	32.89	3.79	61.06	53.46	7.60	8.038	
1,900.00	1,897.54	1,884.71	1,880.72	4.04	4.22	-163.27	46.32	-6.89	91.74	83.77	7.97	11.514	
2,000.00	1,996.09	1,978.30	1,972.63	4.32	4.51	-167.45	60.14	-17.88	126.12	117.78	8.34	15.120	
2,100.00	2,094.16	2,070.94	2,063.60	4.63	4.81	-169.97	73.82	-28.75	163.27	154.55	8.71	18.738	
2,200.00	2,191.70	2,162.56	2,153.58	4.98	5.12	-171.65	87.35	-39.51	202.99	193.91	9.08	22.348	
2,300.00	2,288.62	2,253.10	2,242.49	5.37	5.44	-172.84	100.72	-50.14	245.20	235.75	9.45	25.944	
2,400.00	2,384.86	2,342.50	2,330.28	5.81	5.76	-173.72	113.92	-60.63	289.82	280.00	9.82	29.524	
2,500.00	2,480.36	2,430.69	2,416.89	6.31	6.08	-174.40	126.94	-70.99	336.81	326.63	10.18	33.090	
2,519.45	2,498.84	2,447.70	2,433.60	6.41	6.14	-174.52	129.46	-72.99	346.22	335.97	10.25	33.781	
2,600.00	2,575.32	2,518.04	2,502.68	6.84	6.40	-174.99	139.84	-81.24	385.38	374.77	10.61	36.335	
2,700.00	2,670.27	2,605.37	2,588.43	7.40	6.73	-175.46	152.74	-91.50	434.02	422.96	11.06	39.254	
2,800.00	2,765.21	2,692.69	2,674.19	7.97	7.06	-175.83	165.63	-101.75	482.67	471.16	11.51	41.923	
2,900.00	2,860.16	2,780.02	2,759.95	8.55	7.40	-176.14	178.53	-112.00	531.34	519.37	11.98	44.368	
3,000.00	2,955.11	2,867.34	2,845.70	9.15	7.73	-176.39	191.42	-122.25	580.02	567.58	12.44	46.614	
3,100.00	3,050.06	2,954.67	2,931.46	9.75	8.07	-176.61	204.32	-132.51	628.71	615.79	12.91	48.683	
3,200.00	3,145.00	3,041.99	3,017.22	10.36	8.42	-176.79	217.21	-142.76	677.40	664.01	13.39	50.593	
3,300.00	3,239.95	3,129.32	3,102.98	10.98	8.76	-176.95	230.11	-153.01	726.10	712.23	13.87	52.360	
3,400.00	3,334.90	3,216.64	3,188.73	11.60	9.11	-177.09	243.00	-163.26	774.80	760.45	14.35	53.999	
3,500.00	3,429.84	3,303.97	3,274.49	12.22	9.45	-177.21	255.90	-173.52	823.50	808.67	14.83	55.522	
3,600.00	3,524.79	3,391.30	3,360.25	12.85	9.80	-177.32	268.79	-183.77	872.21	856.89	15.32	56.939	
3,700.00	3,619.74	3,478.62	3,446.01	13.48	10.15	-177.42	281.69	-194.02	920.91	905.11	15.81	58.262	
3,800.00	3,714.69	3,565.95	3,531.76	14.12	10.50	-177.51	294.58	-204.28	969.62	953.33	16.30	59.498	
3,900.00	3,809.63	3,653.27	3,617.52	14.75	10.85	-177.59	307.48	-214.53	1,018.34	1,001.55	16.79	60.657	
4,000.00	3,904.58	3,740.60	3,703.28	15.39	11.21	-177.66	320.38	-224.78	1,067.05	1,049.77	17.28	61.744	
4,100.00	3,999.53	3,827.92	3,789.03	16.03	11.56	-177.73	333.27	-235.03	1,115.76	1,097.99	17.78	62.765	
4,200.00	4,094.47	3,915.25	3,874.79	16.67	11.91	-177.79	346.17	-245.29	1,164.48	1,146.21	18.27	63.727	
4,300.00	4,189.42	4,002.57	3,960.55	17.31	12.27	-177.84	359.06	-255.54	1,213.20	1,194.42	18.77	64.634	
4,400.00	4,284.37	4,089.90	4,046.31	17.96	12.62	-177.89	371.96	-265.79	1,261.91	1,242.64	19.27	65.490	
4,500.00	4,379.32	4,177.22	4,132.06	18.60	12.98	-177.94	384.85	-276.04	1,310.63	1,290.86	19.77	66.300	
4,600.00	4,474.26	4,264.55	4,217.82	19.25	13.34	-177.99	397.75	-286.30	1,359.35	1,339.08	20.27	67.067	
4,700.00	4,569.21	4,351.87	4,303.58	19.90	13.69	-178.03	410.64	-296.55	1,408.07	1,387.30	20.77	67.794	
4,800.00	4,664.16	4,439.20	4,389.34	20.54	14.05	-178.06	423.54	-306.80	1,456.79	1,435.51	21.27	68.484	
4,900.00	4,759.10	4,526.52	4,475.09	21.19	14.41	-178.10	436.43	-317.05	1,505.51	1,483.73	21.77	69.140	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	4,854.05	4,613.85	4,560.85	21.84	14.77	-178.13	449.33	-327.31	1,554.23	1,531.95	22.28	69.764	
5,100.00	4,949.00	4,701.18	4,646.61	22.49	15.13	-178.17	462.22	-337.56	1,602.95	1,580.17	22.78	70.359	
5,200.00	5,043.94	4,788.50	4,732.36	23.14	15.49	-178.20	475.12	-347.81	1,651.67	1,628.38	23.29	70.926	
5,250.61	5,092.00	4,832.70	4,775.77	23.47	15.67	-178.21	481.64	-353.00	1,676.33	1,652.79	23.54	71.203	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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									
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	-92.09	-0.37	-10.07	10.08				
100.00	100.00	100.00	100.00	0.10	0.10	-92.09	-0.37	-10.07	10.08	9.89	0.19	52.760	
200.00	200.00	200.00	200.00	0.32	0.32	-92.09	-0.37	-10.07	10.08	9.44	0.64	15.735	
300.00	300.00	300.00	300.00	0.55	0.55	-92.09	-0.37	-10.07	10.08	8.99	1.09	9.247	
400.00	400.00	400.00	400.00	0.77	0.77	-92.09	-0.37	-10.07	10.08	8.54	1.54	6.547	
500.00	500.00	500.00	500.00	0.99	0.99	-92.09	-0.37	-10.07	10.08	8.09	1.99	5.067	
600.00	600.00	600.00	600.00	1.22	1.22	-92.09	-0.37	-10.07	10.08	7.64	2.44	4.133	
700.00	700.00	700.00	700.00	1.44	1.44	-92.09	-0.37	-10.07	10.08	7.19	2.89	3.490	
800.00	800.00	800.00	800.00	1.67	1.67	-92.09	-0.37	-10.07	10.08	6.74	3.34	3.020	
900.00	900.00	900.00	900.00	1.89	1.89	-92.09	-0.37	-10.07	10.08	6.29	3.79	2.661	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-92.09	-0.37	-10.07	10.08	5.84	4.24	2.379	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-92.09	-0.37	-10.07	10.08	5.39	4.69	2.151	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-92.09	-0.37	-10.07	10.08	4.94	5.14	1.963	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-92.09	-0.37	-10.07	10.08	4.49	5.59	1.805 CC, ES, SF	
1,400.00	1,399.99	1,399.85	1,399.83	2.99	2.99	125.52	-2.02	-10.63	11.53	5.55	5.98	1.929	
1,500.00	1,499.91	1,499.52	1,499.36	3.17	3.16	119.81	-6.94	-12.31	16.01	9.68	6.33	2.528	
1,600.00	1,599.69	1,598.85	1,598.31	3.36	3.35	115.14	-15.11	-15.09	23.62	16.92	6.70	3.525	
1,700.00	1,699.27	1,697.68	1,696.40	3.57	3.55	112.07	-26.46	-18.95	34.37	27.27	7.10	4.844	
1,800.00	1,798.57	1,795.84	1,793.37	3.79	3.78	110.09	-40.89	-23.86	48.20	40.68	7.52	6.407	
1,900.00	1,897.54	1,893.18	1,888.95	4.04	4.05	108.75	-58.30	-29.79	65.07	57.07	8.00	8.137	
2,000.00	1,996.09	1,990.14	1,983.52	4.32	4.35	107.88	-78.53	-36.67	84.80	76.28	8.52	9.949	
2,100.00	2,094.16	2,087.89	2,078.70	4.63	4.69	108.26	-99.65	-43.85	105.84	96.73	9.11	11.618	
2,200.00	2,191.70	2,185.41	2,173.65	4.98	5.05	109.54	-120.71	-51.02	127.73	117.98	9.75	13.096	
2,300.00	2,288.62	2,282.63	2,268.30	5.37	5.43	111.29	-141.71	-58.17	150.61	140.16	10.45	14.409	
2,400.00	2,384.86	2,379.49	2,362.60	5.81	5.82	113.29	-162.63	-65.29	174.63	163.42	11.20	15.585	
2,500.00	2,480.36	2,475.91	2,456.48	6.31	6.22	115.41	-183.46	-72.37	199.95	187.94	12.00	16.656	
2,519.45	2,498.84	2,494.61	2,474.68	6.41	6.30	115.82	-187.50	-73.75	205.03	192.87	12.16	16.854	
2,600.00	2,575.32	2,572.01	2,550.04	6.84	6.63	117.66	-204.22	-79.44	226.33	213.47	12.85	17.607	
2,700.00	2,670.27	2,668.09	2,643.59	7.40	7.05	119.51	-224.97	-86.50	253.01	239.28	13.73	18.432	
2,800.00	2,765.21	2,764.18	2,737.14	7.97	7.48	121.00	-245.72	-93.56	279.89	265.27	14.61	19.155	
2,900.00	2,860.16	2,860.26	2,830.69	8.55	7.90	122.24	-266.48	-100.62	306.91	291.40	15.51	19.789	
3,000.00	2,955.11	2,956.35	2,924.25	9.15	8.34	123.28	-287.23	-107.68	334.05	317.63	16.42	20.349	
3,100.00	3,050.06	3,052.43	3,017.80	9.75	8.78	124.16	-307.99	-114.75	361.27	343.94	17.33	20.845	
3,200.00	3,145.00	3,148.52	3,111.35	10.36	9.22	124.91	-328.74	-121.81	388.57	370.31	18.25	21.288	
3,300.00	3,239.95	3,244.60	3,204.90	10.98	9.66	125.57	-349.49	-128.87	415.91	396.73	19.18	21.685	
3,400.00	3,334.90	3,340.69	3,298.45	11.60	10.11	126.15	-370.25	-135.93	443.30	423.19	20.11	22.043	
3,500.00	3,429.84	3,436.78	3,392.00	12.22	10.56	126.66	-391.00	-142.99	470.73	449.69	21.05	22.366	
3,600.00	3,524.79	3,532.86	3,485.55	12.85	11.01	127.11	-411.76	-150.05	498.19	476.21	21.98	22.660	
3,700.00	3,619.74	3,628.95	3,579.10	13.48	11.46	127.52	-432.51	-157.12	525.67	502.75	22.93	22.929	
3,800.00	3,714.69	3,725.03	3,672.65	14.12	11.91	127.88	-453.27	-164.18	553.18	529.31	23.87	23.174	
3,900.00	3,809.63	3,821.12	3,766.21	14.75	12.37	128.21	-474.02	-171.24	580.71	555.89	24.82	23.400	
4,000.00	3,904.58	3,917.20	3,859.76	15.39	12.83	128.51	-494.77	-178.30	608.25	582.48	25.76	23.608	
4,100.00	3,999.53	4,013.29	3,953.31	16.03	13.28	128.79	-515.53	-185.36	635.80	609.09	26.71	23.801	
4,200.00	4,094.47	4,109.37	4,046.86	16.67	13.74	129.04	-536.28	-192.43	663.37	635.71	27.66	23.980	
4,300.00	4,189.42	4,205.46	4,140.41	17.31	14.20	129.27	-557.04	-199.49	690.95	662.34	28.62	24.146	
4,400.00	4,284.37	4,301.54	4,233.96	17.96	14.66	129.49	-577.79	-206.55	718.54	688.97	29.57	24.302	
4,500.00	4,379.32	4,397.63	4,327.51	18.60	15.12	129.69	-598.54	-213.61	746.14	715.62	30.52	24.447	
4,600.00	4,474.26	4,493.72	4,421.06	19.25	15.58	129.87	-619.30	-220.67	773.74	742.27	31.47	24.583	
4,700.00	4,569.21	4,589.80	4,514.61	19.90	16.05	130.04	-640.05	-227.74	801.36	768.93	32.43	24.711	
4,800.00	4,664.16	4,685.89	4,608.17	20.54	16.51	130.20	-660.81	-234.80	828.97	795.59	33.38	24.832	
4,900.00	4,759.10	4,781.97	4,701.72	21.19	16.97	130.35	-681.56	-241.86	856.60	822.26	34.34	24.946	
5,000.00	4,854.05	4,878.06	4,795.27	21.84	17.44	130.49	-702.31	-248.92	884.23	848.93	35.29	25.053	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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									
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	4,949.00	4,974.14	4,888.82	22.49	17.90	130.63	-723.07	-255.98	911.86	875.61	36.25	25.156	
5,200.00	5,043.94	5,070.23	4,982.37	23.14	18.37	130.75	-743.82	-263.05	939.50	902.29	37.20	25.252	
5,250.61	5,092.00	5,118.86	5,029.72	23.47	18.60	130.81	-754.33	-266.62	953.49	915.80	37.69	25.299	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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	-91.04	-0.36	-20.15	20.15				
100.00	100.00	100.00	100.00	0.10	0.10	-91.04	-0.36	-20.15	20.15	19.96	0.19	105.467	
200.00	200.00	200.00	200.00	0.32	0.32	-91.04	-0.36	-20.15	20.15	19.51	0.64	31.455	
300.00	300.00	300.00	300.00	0.55	0.55	-91.04	-0.36	-20.15	20.15	19.06	1.09	18.484	
400.00	400.00	400.00	400.00	0.77	0.77	-91.04	-0.36	-20.15	20.15	18.61	1.54	13.087	
500.00	500.00	500.00	500.00	0.99	0.99	-91.04	-0.36	-20.15	20.15	18.16	1.99	10.130	
600.00	600.00	600.00	600.00	1.22	1.22	-91.04	-0.36	-20.15	20.15	17.71	2.44	8.262	
700.00	700.00	700.00	700.00	1.44	1.44	-91.04	-0.36	-20.15	20.15	17.26	2.89	6.976	
800.00	800.00	800.00	800.00	1.67	1.67	-91.04	-0.36	-20.15	20.15	16.81	3.34	6.037	
900.00	900.00	900.00	900.00	1.89	1.89	-91.04	-0.36	-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	-91.04	-0.36	-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	-91.04	-0.36	-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	-91.04	-0.36	-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	-91.04	-0.36	-20.15	20.15	14.56	5.59	3.608 CC, ES, SF	
1,400.00	1,399.99	1,399.71	1,399.69	2.99	2.99	129.29	-1.49	-20.80	21.66	15.68	5.98	3.621	
1,500.00	1,499.91	1,499.28	1,499.18	3.17	3.17	128.58	-4.86	-22.75	26.18	19.85	6.33	4.135	
1,600.00	1,599.69	1,598.57	1,598.27	3.36	3.35	127.80	-10.46	-25.98	33.71	27.02	6.70	5.034	
1,700.00	1,699.27	1,697.47	1,696.75	3.57	3.55	127.13	-18.25	-30.48	44.25	37.16	7.08	6.248	
1,800.00	1,798.57	1,795.83	1,794.43	3.79	3.76	126.59	-28.19	-36.23	57.75	50.26	7.49	7.711	
1,900.00	1,897.54	1,893.52	1,891.14	4.04	4.00	126.16	-40.21	-43.17	74.21	66.28	7.93	9.357	
2,000.00	1,996.09	1,990.44	1,986.69	4.32	4.26	125.79	-54.24	-51.29	93.59	85.17	8.41	11.124	
2,100.00	2,094.16	2,086.46	2,080.92	4.63	4.55	125.48	-70.22	-60.52	115.84	106.89	8.94	12.954	
2,200.00	2,191.70	2,181.48	2,173.68	4.98	4.87	125.18	-88.03	-70.81	140.92	131.40	9.52	14.798	
2,300.00	2,288.62	2,275.39	2,264.82	5.37	5.22	124.89	-107.60	-82.12	168.80	158.63	10.16	16.609	
2,400.00	2,384.86	2,368.16	2,354.29	5.81	5.61	124.61	-128.83	-94.39	199.41	188.55	10.86	18.360	
2,500.00	2,480.36	2,462.67	2,445.15	6.31	6.04	124.59	-151.37	-107.42	232.04	220.41	11.63	19.952	
2,519.45	2,498.84	2,480.99	2,462.76	6.41	6.12	124.63	-155.74	-109.94	238.55	226.77	11.78	20.243	
2,600.00	2,575.32	2,556.82	2,535.66	6.84	6.48	125.14	-173.82	-120.40	265.65	253.19	12.46	21.320	
2,700.00	2,670.27	2,650.96	2,626.15	7.40	6.93	125.65	-196.27	-133.37	299.30	285.98	13.32	22.465	
2,800.00	2,765.21	2,745.10	2,716.65	7.97	7.40	126.05	-218.72	-146.35	332.97	318.76	14.21	23.434	
2,900.00	2,860.16	2,839.23	2,807.14	8.55	7.88	126.37	-241.17	-159.32	366.66	351.54	15.11	24.259	
3,000.00	2,955.11	2,933.37	2,897.64	9.15	8.36	126.65	-263.62	-172.29	400.35	384.31	16.03	24.967	
3,100.00	3,050.06	3,027.51	2,988.14	9.75	8.86	126.88	-286.07	-185.27	434.05	417.08	16.97	25.579	
3,200.00	3,145.00	3,121.65	3,078.63	10.36	9.35	127.07	-308.52	-198.24	467.75	449.84	17.91	26.112	
3,300.00	3,239.95	3,215.78	3,169.13	10.98	9.85	127.25	-330.97	-211.22	501.46	482.59	18.87	26.580	
3,400.00	3,334.90	3,309.92	3,259.63	11.60	10.36	127.39	-353.42	-224.19	535.17	515.34	19.83	26.991	
3,500.00	3,429.84	3,404.06	3,350.12	12.22	10.87	127.53	-375.87	-237.17	568.88	548.09	20.79	27.357	
3,600.00	3,524.79	3,498.20	3,440.62	12.85	11.38	127.64	-398.32	-250.14	602.60	580.83	21.77	27.683	
3,700.00	3,619.74	3,592.34	3,531.12	13.48	11.90	127.75	-420.77	-263.12	636.32	613.57	22.75	27.976	
3,800.00	3,714.69	3,686.47	3,621.61	14.12	12.41	127.84	-443.22	-276.09	670.04	646.31	23.73	28.239	
3,900.00	3,809.63	3,780.61	3,712.11	14.75	12.93	127.93	-465.67	-289.07	703.76	679.05	24.71	28.478	
4,000.00	3,904.58	3,874.75	3,802.60	15.39	13.45	128.00	-488.12	-302.04	737.48	711.78	25.70	28.696	
4,100.00	3,999.53	3,968.89	3,893.10	16.03	13.97	128.07	-510.57	-315.02	771.21	744.52	26.69	28.894	
4,200.00	4,094.47	4,063.02	3,983.60	16.67	14.50	128.14	-533.02	-327.99	804.93	777.25	27.68	29.076	
4,300.00	4,189.42	4,157.16	4,074.09	17.31	15.02	128.20	-555.47	-340.96	838.66	809.98	28.68	29.244	
4,400.00	4,284.37	4,251.30	4,164.59	17.96	15.55	128.25	-577.92	-353.94	872.39	842.71	29.67	29.399	
4,500.00	4,379.32	4,345.44	4,255.09	18.60	16.08	128.30	-600.36	-366.91	906.11	875.44	30.67	29.542	
4,600.00	4,474.26	4,439.58	4,345.58	19.25	16.61	128.35	-622.81	-379.89	939.84	908.17	31.67	29.675	
4,700.00	4,569.21	4,533.71	4,436.08	19.90	17.13	128.39	-645.26	-392.86	973.57	940.90	32.67	29.800	
4,800.00	4,664.16	4,627.85	4,526.58	20.54	17.66	128.43	-667.71	-405.84	1,007.30	973.63	33.67	29.916	
4,900.00	4,759.10	4,721.99	4,617.07	21.19	18.19	128.47	-690.16	-418.81	1,041.03	1,006.36	34.67	30.025	
5,000.00	4,854.05	4,816.13	4,707.57	21.84	18.73	128.51	-712.61	-431.79	1,074.76	1,039.08	35.67	30.127	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	4,949.00	4,910.26	4,798.07	22.49	19.26	128.54	-735.06	-444.76	1,108.49	1,071.81	36.68	30.224	
5,200.00	5,043.94	5,004.40	4,888.56	23.14	19.79	128.57	-757.51	-457.74	1,142.22	1,104.54	37.68	30.315	
5,250.61	5,092.00	5,052.05	4,934.36	23.47	20.06	128.59	-768.87	-464.30	1,159.29	1,121.10	38.19	30.359	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	9.79	9.79				
100.00	100.00	100.00	100.00	0.10	0.10	90.00	0.00	9.79	9.79	9.60	0.19	51.260	
200.00	200.00	200.00	200.00	0.32	0.32	90.00	0.00	9.79	9.79	9.15	0.64	15.288	
300.00	300.00	300.00	300.00	0.55	0.55	90.00	0.00	9.79	9.79	8.70	1.09	8.984	
400.00	400.00	400.00	400.00	0.77	0.77	90.00	0.00	9.79	9.79	8.25	1.54	6.361	
500.00	500.00	500.00	500.00	0.99	0.99	90.00	0.00	9.79	9.79	7.80	1.99	4.923	
600.00	600.00	600.00	600.00	1.22	1.22	90.00	0.00	9.79	9.79	7.35	2.44	4.016	
700.00	700.00	700.00	700.00	1.44	1.44	90.00	0.00	9.79	9.79	6.91	2.89	3.391	
800.00	800.00	800.00	800.00	1.67	1.67	90.00	0.00	9.79	9.79	6.46	3.34	2.934	
900.00	900.00	900.00	900.00	1.89	1.89	90.00	0.00	9.79	9.79	6.01	3.79	2.586	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	0.00	9.79	9.79	5.56	4.24	2.311	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	90.00	0.00	9.79	9.79	5.11	4.69	2.090	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	90.00	0.00	9.79	9.79	4.66	5.14	1.907	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	90.00	0.00	9.79	9.79	4.21	5.59	1.753 CC, ES	
1,400.00	1,399.99	1,399.72	1,399.70	2.99	2.99	-48.91	-1.07	11.16	10.31	4.33	5.98	1.723 SF	
1,500.00	1,499.91	1,499.41	1,499.25	3.17	3.18	-47.78	-4.28	15.25	11.86	5.52	6.34	1.870	
1,600.00	1,599.69	1,599.00	1,598.46	3.36	3.38	-46.44	-9.62	22.06	14.46	7.74	6.72	2.153	
1,700.00	1,699.27	1,698.47	1,697.19	3.57	3.60	-45.20	-17.08	31.56	18.09	10.99	7.10	2.547	
1,800.00	1,798.57	1,797.78	1,795.28	3.79	3.85	-44.18	-26.63	43.73	22.76	15.25	7.51	3.030	
1,900.00	1,897.54	1,896.87	1,892.56	4.04	4.13	-43.39	-38.25	58.53	28.46	20.51	7.95	3.580	
2,000.00	1,996.09	1,995.81	1,988.99	4.32	4.46	-42.78	-51.90	75.93	35.17	26.75	8.42	4.177	
2,100.00	2,094.16	2,095.63	2,085.96	4.63	4.83	-43.78	-66.53	94.56	41.16	32.21	8.95	4.601	
2,200.00	2,191.70	2,195.51	2,182.99	4.98	5.23	-46.86	-81.16	113.21	45.34	35.78	9.56	4.743	
2,300.00	2,288.62	2,295.39	2,280.01	5.37	5.65	-51.79	-95.79	131.86	47.97	37.67	10.30	4.658	
2,400.00	2,384.86	2,395.20	2,376.97	5.81	6.08	-58.70	-110.42	150.49	49.52	38.31	11.21	4.416	
2,500.00	2,480.36	2,494.87	2,473.80	6.31	6.52	-67.76	-125.02	169.10	50.69	38.37	12.33	4.113	
2,519.45	2,498.84	2,514.24	2,492.61	6.41	6.61	-69.78	-127.86	172.71	50.96	38.40	12.56	4.056	
2,600.00	2,575.32	2,594.42	2,570.50	6.84	6.97	-78.07	-139.60	187.68	52.68	39.12	13.56	3.885	
2,700.00	2,670.27	2,693.96	2,667.20	7.40	7.43	-87.41	-154.19	206.26	56.24	41.50	14.74	3.815	
2,800.00	2,765.21	2,793.50	2,763.89	7.97	7.90	-95.47	-168.77	224.84	61.11	45.28	15.82	3.861	
2,900.00	2,860.16	2,893.04	2,860.59	8.55	8.37	-102.23	-183.35	243.43	67.00	50.19	16.81	3.986	
3,000.00	2,955.11	2,992.58	2,957.29	9.15	8.84	-107.85	-197.94	262.01	73.67	55.95	17.71	4.159	
3,100.00	3,050.06	3,092.12	3,053.98	9.75	9.32	-112.49	-212.52	280.59	80.92	62.36	18.56	4.360	
3,200.00	3,145.00	3,191.66	3,150.68	10.36	9.81	-116.36	-227.10	299.17	88.62	69.25	19.37	4.575	
3,300.00	3,239.95	3,291.20	3,247.38	10.98	10.30	-119.59	-241.69	317.75	96.66	76.50	20.16	4.794	
3,400.00	3,334.90	3,390.74	3,344.07	11.60	10.78	-122.33	-256.27	336.34	104.95	84.02	20.94	5.013	
3,500.00	3,429.84	3,490.28	3,440.77	12.22	11.28	-124.66	-270.85	354.92	113.45	91.75	21.70	5.228	
3,600.00	3,524.79	3,589.82	3,537.47	12.85	11.77	-126.66	-285.43	373.50	122.11	99.65	22.46	5.436	
3,700.00	3,619.74	3,689.36	3,634.16	13.48	12.26	-128.39	-300.02	392.08	130.90	107.68	23.22	5.636	
3,800.00	3,714.69	3,788.90	3,730.86	14.12	12.76	-129.91	-314.60	410.67	139.79	115.81	23.98	5.828	
3,900.00	3,809.63	3,888.44	3,827.56	14.75	13.26	-131.25	-329.18	429.25	148.77	124.02	24.75	6.012	
4,000.00	3,904.58	3,987.98	3,924.25	15.39	13.76	-132.43	-343.77	447.83	157.82	132.31	25.51	6.187	
4,100.00	3,999.53	4,087.52	4,020.95	16.03	14.26	-133.48	-358.35	466.41	166.93	140.66	26.27	6.354	
4,200.00	4,094.47	4,187.06	4,117.65	16.67	14.76	-134.43	-372.93	485.00	176.09	149.05	27.04	6.513	
4,300.00	4,189.42	4,286.60	4,214.34	17.31	15.26	-135.28	-387.52	503.58	185.29	157.48	27.80	6.664	
4,400.00	4,284.37	4,386.14	4,311.04	17.96	15.76	-136.05	-402.10	522.16	194.52	165.95	28.57	6.809	
4,500.00	4,379.32	4,485.68	4,407.74	18.60	16.27	-136.75	-416.68	540.74	203.79	174.45	29.34	6.946	
4,600.00	4,474.26	4,585.22	4,504.43	19.25	16.77	-137.39	-431.27	559.32	213.09	182.98	30.11	7.076	
4,700.00	4,569.21	4,684.76	4,601.13	19.90	17.28	-137.97	-445.85	577.91	222.41	191.53	30.89	7.201	
4,800.00	4,664.16	4,784.30	4,697.83	20.54	17.78	-138.51	-460.43	596.49	231.76	200.09	31.66	7.320	
4,900.00	4,759.10	4,883.84	4,794.52	21.19	18.29	-139.01	-475.02	615.07	241.12	208.68	32.44	7.433	
5,000.00	4,854.05	4,983.38	4,891.22	21.84	18.79	-139.47	-489.60	633.65	250.50	217.28	33.21	7.542	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
5,100.00	4,949.00	5,082.92	4,987.91	22.49	19.30	-139.89	-504.18	652.24	259.89	225.89	33.99	7.645	
5,200.00	5,043.94	5,182.46	5,084.61	23.14	19.80	-140.29	-518.77	670.82	269.29	234.52	34.77	7.744	
5,250.61	5,092.00	5,232.84	5,133.55	23.47	20.06	-140.48	-526.15	680.22	274.06	238.89	35.17	7.793	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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)	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	89.70	0.36	69.95	69.95				
100.00	100.00	100.00	100.00	0.10	0.10	89.70	0.36	69.95	69.95	69.76	0.19	366.148	
200.00	200.00	200.00	200.00	0.32	0.32	89.70	0.36	69.95	69.95	69.31	0.64	109.202	
300.00	300.00	300.00	300.00	0.55	0.55	89.70	0.36	69.95	69.95	68.86	1.09	64.170	
400.00	400.00	400.00	400.00	0.77	0.77	89.70	0.36	69.95	69.95	68.41	1.54	45.435	
500.00	500.00	500.00	500.00	0.99	0.99	89.70	0.36	69.95	69.95	67.96	1.99	35.167	
600.00	600.00	600.00	600.00	1.22	1.22	89.70	0.36	69.95	69.95	67.51	2.44	28.684	
700.00	700.00	700.00	700.00	1.44	1.44	89.70	0.36	69.95	69.95	67.06	2.89	24.220	
800.00	800.00	800.00	800.00	1.67	1.67	89.70	0.36	69.95	69.95	66.62	3.34	20.958	
900.00	900.00	900.00	900.00	1.89	1.89	89.70	0.36	69.95	69.95	66.17	3.79	18.470	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.70	0.36	69.95	69.95	65.72	4.24	16.511	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.70	0.36	69.95	69.95	65.27	4.69	14.927	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.70	0.36	69.95	69.95	64.82	5.14	13.620	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.70	0.36	69.95	69.95	64.37	5.59	12.524 CC, ES	
1,400.00	1,399.99	1,397.60	1,397.58	2.99	3.00	-50.36	0.27	71.61	70.81	64.82	5.99	11.825	
1,500.00	1,499.91	1,495.09	1,494.94	3.17	3.20	-52.35	-0.01	76.58	73.45	67.09	6.36	11.551 SF	
1,600.00	1,599.69	1,592.36	1,591.85	3.36	3.41	-55.34	-0.47	84.83	78.02	71.28	6.74	11.576	
1,700.00	1,699.27	1,689.29	1,688.09	3.57	3.63	-58.95	-1.11	96.32	84.74	77.60	7.14	11.870	
1,800.00	1,798.57	1,785.78	1,783.46	3.79	3.88	-62.78	-1.93	110.98	93.79	86.23	7.56	12.399	
1,900.00	1,897.54	1,881.73	1,877.74	4.04	4.16	-66.51	-2.92	128.72	105.30	97.28	8.03	13.119	
2,000.00	1,996.09	1,977.05	1,970.76	4.32	4.48	-69.93	-4.08	149.46	119.34	110.80	8.54	13.977	
2,100.00	2,094.16	2,071.63	2,062.33	4.63	4.84	-72.94	-5.40	173.08	135.90	126.79	9.11	14.918	
2,200.00	2,191.70	2,165.39	2,152.29	4.98	5.25	-75.52	-6.87	199.47	154.95	145.19	9.75	15.890	
2,300.00	2,288.62	2,259.29	2,241.49	5.37	5.71	-77.72	-8.51	228.75	176.36	165.89	10.47	16.842	
2,400.00	2,384.86	2,356.47	2,333.50	5.81	6.23	-80.02	-10.25	259.95	198.39	187.09	11.30	17.561	
2,500.00	2,480.36	2,453.50	2,425.38	6.31	6.78	-82.48	-11.99	291.11	220.41	208.20	12.22	18.044	
2,519.45	2,498.84	2,472.35	2,443.22	6.41	6.88	-82.97	-12.33	297.16	224.71	212.30	12.40	18.115	
2,600.00	2,575.32	2,550.39	2,517.13	6.84	7.34	-85.12	-13.73	322.23	242.69	229.48	13.22	18.363	
2,700.00	2,670.27	2,647.29	2,608.87	7.40	7.91	-87.38	-15.47	353.34	265.40	251.14	14.26	18.613	
2,800.00	2,765.21	2,744.18	2,700.61	7.97	8.50	-89.28	-17.21	384.46	288.45	273.12	15.33	18.813	
2,900.00	2,860.16	2,841.07	2,792.36	8.55	9.10	-90.90	-18.95	415.57	311.75	295.32	16.43	18.974	
3,000.00	2,955.11	2,937.97	2,884.10	9.15	9.70	-92.30	-20.68	446.69	335.26	317.71	17.55	19.107	
3,100.00	3,050.06	3,034.86	2,975.85	9.75	10.31	-93.52	-22.42	477.80	358.93	340.26	18.68	19.217	
3,200.00	3,145.00	3,131.75	3,067.59	10.36	10.93	-94.58	-24.16	508.92	382.74	362.92	19.82	19.309	
3,300.00	3,239.95	3,228.64	3,159.34	10.98	11.55	-95.52	-25.90	540.03	406.66	385.68	20.98	19.387	
3,400.00	3,334.90	3,325.54	3,251.08	11.60	12.17	-96.36	-27.64	571.15	430.67	408.53	22.14	19.454	
3,500.00	3,429.84	3,422.43	3,342.83	12.22	12.80	-97.11	-29.38	602.26	454.76	431.45	23.31	19.512	
3,600.00	3,524.79	3,519.32	3,434.57	12.85	13.43	-97.78	-31.11	633.37	478.91	454.43	24.48	19.562	
3,700.00	3,619.74	3,616.21	3,526.31	13.48	14.06	-98.39	-32.85	664.49	503.12	477.46	25.66	19.606	
3,800.00	3,714.69	3,713.11	3,618.06	14.12	14.69	-98.94	-34.59	695.60	527.38	500.54	26.85	19.645	
3,900.00	3,809.63	3,810.00	3,709.80	14.75	15.33	-99.45	-36.33	726.72	551.68	523.65	28.03	19.680	
4,000.00	3,904.58	3,906.89	3,801.55	15.39	15.96	-99.91	-38.07	757.83	576.02	546.80	29.22	19.710	
4,100.00	3,999.53	4,003.78	3,893.29	16.03	16.60	-100.33	-39.81	788.95	600.39	569.98	30.42	19.738	
4,200.00	4,094.47	4,100.68	3,985.04	16.67	17.24	-100.72	-41.54	820.06	624.79	593.18	31.61	19.763	
4,300.00	4,189.42	4,197.57	4,076.78	17.31	17.88	-101.09	-43.28	851.18	649.22	616.41	32.81	19.786	
4,400.00	4,284.37	4,294.46	4,168.53	17.96	18.52	-101.42	-45.02	882.29	673.67	639.65	34.01	19.806	
4,500.00	4,379.32	4,391.36	4,260.27	18.60	19.16	-101.73	-46.76	913.41	698.13	662.92	35.21	19.825	
4,600.00	4,474.26	4,488.25	4,352.01	19.25	19.81	-102.02	-48.50	944.52	722.62	686.20	36.42	19.842	
4,700.00	4,569.21	4,585.14	4,443.76	19.90	20.45	-102.30	-50.24	975.64	747.12	709.50	37.62	19.858	
4,800.00	4,664.16	4,682.03	4,535.50	20.54	21.10	-102.55	-51.97	1,006.75	771.64	732.81	38.83	19.873	
4,900.00	4,759.10	4,778.93	4,627.25	21.19	21.74	-102.79	-53.71	1,037.87	796.17	756.13	40.04	19.887	
5,000.00	4,854.05	4,875.82	4,718.99	21.84	22.39	-103.02	-55.45	1,068.98	820.71	779.47	41.24	19.899	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	
5,100.00	4,949.00	4,972.71	4,810.74	22.49	23.03	-103.23	-57.19	1,100.10	845.27	802.81	42.45	19.911	
5,200.00	5,043.94	5,069.60	4,902.48	23.14	23.68	-103.43	-58.93	1,131.21	869.83	826.17	43.66	19.922	
5,250.61	5,092.00	5,118.64	4,948.92	23.47	24.01	-103.52	-59.81	1,146.96	882.27	837.99	44.27	19.927	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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	89.60	0.35	49.81	49.81				
100.00	100.00	100.00	100.00	0.10	0.10	89.60	0.35	49.81	49.81	49.62	0.19	260.701	
200.00	200.00	200.00	200.00	0.32	0.32	89.60	0.35	49.81	49.81	49.17	0.64	77.753	
300.00	300.00	300.00	300.00	0.55	0.55	89.60	0.35	49.81	49.81	48.72	1.09	45.690	
400.00	400.00	400.00	400.00	0.77	0.77	89.60	0.35	49.81	49.81	48.27	1.54	32.350	
500.00	500.00	500.00	500.00	0.99	0.99	89.60	0.35	49.81	49.81	47.82	1.99	25.039	
600.00	600.00	600.00	600.00	1.22	1.22	89.60	0.35	49.81	49.81	47.37	2.44	20.424	
700.00	700.00	700.00	700.00	1.44	1.44	89.60	0.35	49.81	49.81	46.92	2.89	17.245	
800.00	800.00	800.00	800.00	1.67	1.67	89.60	0.35	49.81	49.81	46.47	3.34	14.922	
900.00	900.00	900.00	900.00	1.89	1.89	89.60	0.35	49.81	49.81	46.02	3.79	13.151	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.60	0.35	49.81	49.81	45.57	4.24	11.756	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.60	0.35	49.81	49.81	45.12	4.69	10.628	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.60	0.35	49.81	49.81	44.67	5.14	9.698	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.60	0.35	49.81	49.81	44.22	5.59	8.917 CC, ES	
1,400.00	1,399.99	1,398.62	1,398.60	2.99	3.01	-52.11	1.43	51.11	50.34	44.34	6.00	8.390	
1,500.00	1,499.91	1,496.94	1,496.79	3.17	3.22	-58.75	4.66	55.02	52.42	46.04	6.39	8.206 SF	
1,600.00	1,599.69	1,594.68	1,594.16	3.36	3.44	-68.40	9.99	61.48	57.31	50.52	6.79	8.441	
1,700.00	1,699.27	1,691.55	1,690.34	3.57	3.68	-78.97	17.36	70.41	66.40	59.19	7.21	9.212	
1,800.00	1,798.57	1,787.29	1,784.94	3.79	3.93	-88.52	26.68	81.69	80.53	72.88	7.65	10.531	
1,900.00	1,897.54	1,881.64	1,877.65	4.04	4.20	-96.17	37.82	95.18	99.83	91.72	8.11	12.312	
2,000.00	1,996.09	1,974.37	1,968.16	4.32	4.50	-101.92	50.66	110.73	124.07	115.47	8.60	14.428	
2,100.00	2,094.16	2,065.29	2,056.22	4.63	4.84	-106.14	65.05	128.16	152.88	143.76	9.12	16.760	
2,200.00	2,191.70	2,154.19	2,141.59	4.98	5.21	-109.22	80.84	147.28	185.96	176.28	9.68	19.207	
2,300.00	2,288.62	2,240.93	2,224.10	5.37	5.62	-111.46	97.86	167.89	223.02	212.74	10.28	21.688	
2,400.00	2,384.86	2,325.37	2,303.62	5.81	6.06	-113.09	115.95	189.80	263.84	252.91	10.93	24.144	
2,500.00	2,480.36	2,407.41	2,380.03	6.31	6.53	-114.26	134.95	212.80	308.21	296.59	11.62	26.530	
2,519.45	2,498.84	2,423.07	2,394.53	6.41	6.63	-114.45	138.73	217.39	317.23	305.47	11.76	26.978	
2,600.00	2,575.32	2,487.17	2,453.48	6.84	7.04	-115.56	154.75	236.78	355.62	343.25	12.37	28.758	
2,700.00	2,670.27	2,568.53	2,527.56	7.40	7.60	-116.52	176.17	262.72	405.08	391.93	13.16	30.785	
2,800.00	2,765.21	2,655.03	2,606.14	7.97	8.23	-117.30	199.20	290.61	455.01	441.01	14.00	32.502	
2,900.00	2,860.16	2,741.53	2,684.71	8.55	8.87	-117.92	222.22	318.50	504.99	490.13	14.86	33.977	
3,000.00	2,955.11	2,828.02	2,763.28	9.15	9.52	-118.43	245.25	346.39	555.01	539.26	15.75	35.249	
3,100.00	3,050.06	2,914.52	2,841.86	9.75	10.18	-118.86	268.28	374.27	605.05	588.40	16.64	36.352	
3,200.00	3,145.00	3,001.02	2,920.43	10.36	10.85	-119.22	291.31	402.16	655.11	637.55	17.56	37.312	
3,300.00	3,239.95	3,087.52	2,999.00	10.98	11.53	-119.53	314.34	430.05	705.19	686.71	18.48	38.152	
3,400.00	3,334.90	3,174.01	3,077.58	11.60	12.22	-119.80	337.36	457.94	755.29	735.87	19.42	38.892	
3,500.00	3,429.84	3,260.51	3,156.15	12.22	12.90	-120.04	360.39	485.82	805.39	785.03	20.36	39.548	
3,600.00	3,524.79	3,347.01	3,234.72	12.85	13.60	-120.24	383.42	513.71	855.51	834.19	21.32	40.132	
3,700.00	3,619.74	3,433.50	3,313.29	13.48	14.30	-120.43	406.45	541.60	905.63	883.35	22.28	40.654	
3,800.00	3,714.69	3,520.00	3,391.87	14.12	15.00	-120.59	429.48	569.49	955.76	932.52	23.24	41.123	
3,900.00	3,809.63	3,606.50	3,470.44	14.75	15.70	-120.74	452.50	597.37	1,005.89	981.68	24.21	41.546	
4,000.00	3,904.58	3,693.00	3,549.01	15.39	16.40	-120.88	475.53	625.26	1,056.03	1,030.84	25.19	41.929	
4,100.00	3,999.53	3,779.49	3,627.59	16.03	17.11	-121.00	498.56	653.15	1,106.17	1,080.00	26.17	42.276	
4,200.00	4,094.47	3,865.99	3,706.16	16.67	17.82	-121.11	521.59	681.04	1,156.32	1,129.17	27.15	42.593	
4,300.00	4,189.42	3,952.49	3,784.73	17.31	18.53	-121.22	544.62	708.92	1,206.46	1,178.33	28.13	42.883	
4,400.00	4,284.37	4,038.98	3,863.31	17.96	19.24	-121.31	567.64	736.81	1,256.62	1,227.49	29.12	43.149	
4,500.00	4,379.32	4,125.48	3,941.88	18.60	19.96	-121.40	590.67	764.70	1,306.77	1,276.66	30.11	43.395	
4,600.00	4,474.26	4,211.98	4,020.45	19.25	20.67	-121.48	613.70	792.59	1,356.93	1,325.82	31.11	43.621	
4,700.00	4,569.21	4,298.48	4,099.03	19.90	21.39	-121.55	636.73	820.47	1,407.08	1,374.98	32.10	43.830	
4,800.00	4,664.16	4,384.97	4,177.60	20.54	22.10	-121.62	659.76	848.36	1,457.24	1,424.14	33.10	44.024	
4,900.00	4,759.10	4,471.47	4,256.17	21.19	22.82	-121.69	682.78	876.25	1,507.40	1,473.30	34.10	44.205	
5,000.00	4,854.05	4,557.97	4,334.75	21.84	23.54	-121.75	705.81	904.13	1,557.57	1,522.46	35.10	44.373	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	
5,100.00	4,949.00	4,644.46	4,413.32	22.49	24.26	-121.81	728.84	932.02	1,607.73	1,571.62	36.10	44.530	
5,200.00	5,043.94	4,730.96	4,491.89	23.14	24.98	-121.86	751.87	959.91	1,657.89	1,620.78	37.11	44.677	
5,250.61	5,092.00	4,774.74	4,531.66	23.47	25.34	-121.89	763.52	974.02	1,683.28	1,645.67	37.62	44.747	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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)	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	-90.69	-0.36	-30.22	30.22				
100.00	100.00	100.00	100.00	0.10	0.10	-90.69	-0.36	-30.22	30.22	30.03	0.19	158.185	
200.00	200.00	200.00	200.00	0.32	0.32	-90.69	-0.36	-30.22	30.22	29.58	0.64	47.178	
300.00	300.00	300.00	300.00	0.55	0.55	-90.69	-0.36	-30.22	30.22	29.13	1.09	27.723	
400.00	400.00	400.00	400.00	0.77	0.77	-90.69	-0.36	-30.22	30.22	28.68	1.54	19.629	
500.00	500.00	500.00	500.00	0.99	0.99	-90.69	-0.36	-30.22	30.22	28.23	1.99	15.193	
600.00	600.00	600.00	600.00	1.22	1.22	-90.69	-0.36	-30.22	30.22	27.78	2.44	12.392	
700.00	700.00	700.00	700.00	1.44	1.44	-90.69	-0.36	-30.22	30.22	27.33	2.89	10.464	
800.00	800.00	800.00	800.00	1.67	1.67	-90.69	-0.36	-30.22	30.22	26.88	3.34	9.054	
900.00	900.00	900.00	900.00	1.89	1.89	-90.69	-0.36	-30.22	30.22	26.43	3.79	7.980	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.69	-0.36	-30.22	30.22	25.98	4.24	7.133	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.69	-0.36	-30.22	30.22	25.54	4.69	6.449	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.69	-0.36	-30.22	30.22	25.09	5.14	5.884	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.69	-0.36	-30.22	30.22	24.64	5.59	5.411 CC, ES, SF	
1,400.00	1,399.99	1,398.88	1,398.86	2.99	3.00	131.42	-0.52	-31.92	32.79	26.80	5.99	5.474	
1,500.00	1,499.91	1,497.31	1,497.15	3.17	3.20	134.70	-0.97	-36.98	40.60	34.24	6.36	6.384	
1,600.00	1,599.69	1,594.83	1,594.31	3.36	3.41	138.00	-1.72	-45.32	53.74	47.01	6.73	7.981	
1,700.00	1,699.27	1,691.02	1,689.80	3.57	3.63	140.54	-2.75	-56.76	72.22	65.11	7.11	10.152	
1,800.00	1,798.57	1,785.47	1,783.15	3.79	3.88	142.32	-4.03	-71.09	95.92	88.42	7.50	12.789	
1,900.00	1,897.54	1,877.82	1,873.91	4.04	4.15	143.51	-5.55	-88.06	124.71	116.81	7.90	15.794	
2,000.00	1,996.09	1,967.75	1,961.72	4.32	4.45	144.28	-7.29	-107.38	158.41	150.11	8.30	19.081	
2,100.00	2,094.16	2,058.05	2,049.35	4.63	4.78	144.85	-9.24	-129.09	196.44	187.72	8.73	22.514	
2,200.00	2,191.70	2,149.49	2,138.02	4.98	5.14	145.48	-11.23	-151.35	236.76	227.59	9.17	25.819	
2,300.00	2,288.62	2,239.98	2,225.77	5.37	5.52	146.13	-13.21	-173.37	279.10	269.47	9.63	28.983	
2,400.00	2,384.86	2,329.46	2,312.53	5.81	5.91	146.77	-15.16	-195.14	323.48	313.38	10.10	32.012	
2,500.00	2,480.36	2,417.85	2,398.25	6.31	6.31	147.38	-17.09	-216.65	369.89	359.29	10.60	34.893	
2,519.45	2,498.84	2,434.92	2,414.79	6.41	6.38	147.49	-17.46	-220.80	379.16	368.46	10.70	35.438	
2,600.00	2,575.32	2,505.49	2,483.23	6.84	6.71	148.25	-19.01	-237.98	417.71	406.55	11.16	37.438	
2,700.00	2,670.27	2,593.11	2,568.19	7.40	7.12	149.01	-20.92	-259.30	465.64	453.90	11.74	39.667	
2,800.00	2,765.21	2,680.72	2,653.15	7.97	7.53	149.63	-22.83	-280.62	513.62	501.28	12.33	41.653	
2,900.00	2,860.16	2,768.34	2,738.11	8.55	7.95	150.14	-24.74	-301.94	561.63	548.70	12.93	43.429	
3,000.00	2,955.11	2,855.96	2,823.07	9.15	8.38	150.57	-26.66	-323.26	609.68	596.14	13.54	45.024	
3,100.00	3,050.06	2,943.57	2,908.03	9.75	8.80	150.94	-28.57	-344.58	657.74	643.59	14.16	46.461	
3,200.00	3,145.00	3,031.19	2,992.99	10.36	9.23	151.26	-30.48	-365.90	705.83	691.05	14.78	47.762	
3,300.00	3,239.95	3,118.80	3,077.95	10.98	9.67	151.54	-32.40	-387.23	753.93	738.53	15.40	48.943	
3,400.00	3,334.90	3,206.42	3,162.92	11.60	10.11	151.79	-34.31	-408.55	802.05	786.01	16.03	50.021	
3,500.00	3,429.84	3,294.04	3,247.88	12.22	10.54	152.00	-36.22	-429.87	850.17	833.50	16.67	51.006	
3,600.00	3,524.79	3,381.65	3,332.84	12.85	10.99	152.20	-38.14	-451.19	898.30	881.00	17.30	51.911	
3,700.00	3,619.74	3,469.27	3,417.80	13.48	11.43	152.37	-40.05	-472.51	946.44	928.50	17.94	52.745	
3,800.00	3,714.69	3,556.89	3,502.76	14.12	11.87	152.53	-41.96	-493.83	994.58	976.00	18.59	53.512	
3,900.00	3,809.63	3,644.50	3,587.72	14.75	12.32	152.67	-43.87	-515.15	1,042.73	1,023.50	19.24	54.204	
4,000.00	3,904.58	3,732.12	3,672.68	15.39	12.77	152.80	-45.79	-536.47	1,090.89	1,071.00	19.89	54.843	
4,100.00	3,999.53	3,819.73	3,757.64	16.03	13.21	152.92	-47.70	-557.79	1,139.05	1,118.50	20.55	55.435	
4,200.00	4,094.47	3,907.35	3,842.60	16.67	13.66	153.03	-49.61	-579.12	1,187.21	1,166.00	21.21	55.986	
4,300.00	4,189.42	3,994.97	3,927.56	17.31	14.11	153.13	-51.53	-600.44	1,235.38	1,213.51	21.87	56.499	
4,400.00	4,284.37	4,082.58	4,012.52	17.96	14.56	153.23	-53.44	-621.76	1,283.54	1,261.02	22.53	56.977	
4,500.00	4,379.32	4,170.20	4,097.48	18.60	15.01	153.32	-55.35	-643.08	1,331.71	1,308.52	23.19	57.424	
4,600.00	4,474.26	4,257.81	4,182.44	19.25	15.46	153.40	-57.27	-664.40	1,379.89	1,356.03	23.86	57.842	
4,700.00	4,569.21	4,345.43	4,267.41	19.90	15.92	153.47	-59.18	-685.72	1,428.06	1,403.54	24.52	58.235	
4,800.00	4,664.16	4,433.05	4,352.37	20.54	16.37	153.54	-61.09	-707.04	1,476.24	1,451.05	25.19	58.605	
4,900.00	4,759.10	4,520.66	4,437.33	21.19	16.82	153.61	-63.00	-728.36	1,524.42	1,498.56	25.86	58.952	
5,000.00	4,854.05	4,608.28	4,522.29	21.84	17.28	153.67	-64.92	-749.69	1,572.60	1,546.07	26.53	59.280	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	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
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	
5,100.00	4,949.00	4,695.89	4,607.25	22.49	17.73	153.73	-66.83	-771.01	1,620.78	1,593.58	27.20	59.590	
5,200.00	5,043.94	4,783.51	4,692.21	23.14	18.19	153.78	-68.74	-792.33	1,668.96	1,641.09	27.87	59.883	
5,250.61	5,092.00	4,827.86	4,735.21	23.47	18.42	153.81	-69.71	-803.12	1,693.34	1,665.13	28.21	60.025	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 4-2S - P_JESSER 4-2S - 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	90.00	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	1,400.39	1,400.38	2.99	3.01	-54.60	0.63	18.71	17.93	11.93	6.00	2.988	
1,500.00	1,499.91	1,500.38	1,500.29	3.17	3.23	-78.18	2.51	15.25	13.51	7.11	6.40	2.112	
1,544.87	1,544.70	1,545.01	1,544.84	3.26	3.32	-100.41	3.76	12.97	12.50	5.91	6.58	1.899 CC, ES, SF	
1,600.00	1,599.69	1,599.58	1,599.27	3.36	3.45	-131.79	5.62	9.56	14.68	7.88	6.80	2.159	
1,700.00	1,699.27	1,697.61	1,696.89	3.57	3.67	-163.95	9.89	1.71	28.49	21.32	7.17	3.972	
1,800.00	1,798.57	1,794.09	1,792.72	3.79	3.91	-175.56	15.27	-8.15	50.06	42.51	7.55	6.631	
1,900.00	1,897.54	1,888.71	1,886.38	4.04	4.16	-179.23	21.67	-19.89	77.24	69.31	7.93	9.744	
2,000.00	1,996.09	1,981.14	1,977.54	4.32	4.42	176.42	28.99	-33.32	109.43	101.13	8.30	13.182	
2,100.00	2,094.16	2,071.11	2,065.89	4.63	4.70	174.70	37.12	-48.25	146.36	137.68	8.67	16.874	
2,200.00	2,191.70	2,158.82	2,151.60	4.98	5.00	173.54	46.00	-64.54	187.80	178.76	9.04	20.771	
2,300.00	2,288.62	2,248.28	2,238.86	5.37	5.33	172.76	55.44	-81.86	232.42	223.00	9.42	24.680	
2,400.00	2,384.86	2,336.55	2,324.96	5.81	5.66	172.27	64.76	-98.95	279.37	269.58	9.79	28.530	
2,500.00	2,480.36	2,423.59	2,409.86	6.31	6.01	171.95	73.94	-115.80	328.60	318.43	10.17	32.322	
2,519.45	2,498.84	2,440.37	2,426.22	6.41	6.07	171.91	75.71	-119.05	338.43	328.19	10.24	33.052	
2,600.00	2,575.32	2,509.75	2,493.90	6.84	6.35	171.82	83.03	-132.49	379.35	368.74	10.61	35.761	
2,700.00	2,670.27	2,595.89	2,577.92	7.40	6.71	171.74	92.12	-149.16	430.14	419.06	11.07	38.845	
2,800.00	2,765.21	2,682.03	2,661.94	7.97	7.07	171.68	101.21	-165.84	480.93	469.38	11.55	41.651	
2,900.00	2,860.16	2,768.17	2,745.96	8.55	7.43	171.63	110.30	-182.52	531.72	519.69	12.03	44.212	
3,000.00	2,955.11	2,854.31	2,829.98	9.15	7.80	171.59	119.39	-199.20	582.51	570.00	12.51	46.555	
3,100.00	3,050.06	2,940.45	2,914.00	9.75	8.18	171.55	128.48	-215.88	633.30	620.30	13.00	48.704	
3,200.00	3,145.00	3,026.59	2,998.02	10.36	8.55	171.52	137.57	-232.55	684.10	670.60	13.50	50.679	
3,300.00	3,239.95	3,112.73	3,082.04	10.98	8.93	171.49	146.66	-249.23	734.89	720.89	14.00	52.500	
3,400.00	3,334.90	3,198.87	3,166.06	11.60	9.32	171.47	155.75	-265.91	785.68	771.18	14.50	54.183	
3,500.00	3,429.84	3,285.01	3,250.08	12.22	9.70	171.45	164.84	-282.59	836.47	821.47	15.01	55.739	
3,600.00	3,524.79	3,371.15	3,334.10	12.85	10.09	171.43	173.93	-299.26	887.27	871.75	15.52	57.183	
3,700.00	3,619.74	3,457.29	3,418.12	13.48	10.48	171.42	183.02	-315.94	938.06	922.03	16.03	58.526	
3,800.00	3,714.69	3,543.43	3,502.14	14.12	10.87	171.40	192.11	-332.62	988.85	972.31	16.54	59.778	
3,900.00	3,809.63	3,629.57	3,586.15	14.75	11.26	171.39	201.20	-349.30	1,039.65	1,022.59	17.06	60.947	
4,000.00	3,904.58	3,715.71	3,670.17	15.39	11.65	171.38	210.29	-365.98	1,090.44	1,072.86	17.58	62.041	
4,100.00	3,999.53	3,801.85	3,754.19	16.03	12.05	171.37	219.38	-382.65	1,141.23	1,123.13	18.10	63.065	
4,200.00	4,094.47	3,887.99	3,838.21	16.67	12.45	171.36	228.47	-399.33	1,192.02	1,173.41	18.62	64.027	
4,300.00	4,189.42	3,974.13	3,922.23	17.31	12.84	171.35	237.56	-416.01	1,242.82	1,223.68	19.14	64.931	
4,400.00	4,284.37	4,060.27	4,006.25	17.96	13.24	171.34	246.65	-432.69	1,293.61	1,273.95	19.66	65.783	
4,500.00	4,379.32	4,146.41	4,090.27	18.60	13.64	171.33	255.73	-449.36	1,344.40	1,324.21	20.19	66.586	
4,600.00	4,474.26	4,232.55	4,174.29	19.25	14.04	171.33	264.82	-466.04	1,395.20	1,374.48	20.72	67.345	
4,700.00	4,569.21	4,318.69	4,258.31	19.90	14.44	171.32	273.91	-482.72	1,445.99	1,424.74	21.24	68.063	
4,800.00	4,664.16	4,404.83	4,342.33	20.54	14.84	171.31	283.00	-499.40	1,496.78	1,475.01	21.77	68.743	
4,900.00	4,759.10	4,490.97	4,426.35	21.19	15.24	171.31	292.09	-516.08	1,547.58	1,525.27	22.30	69.388	

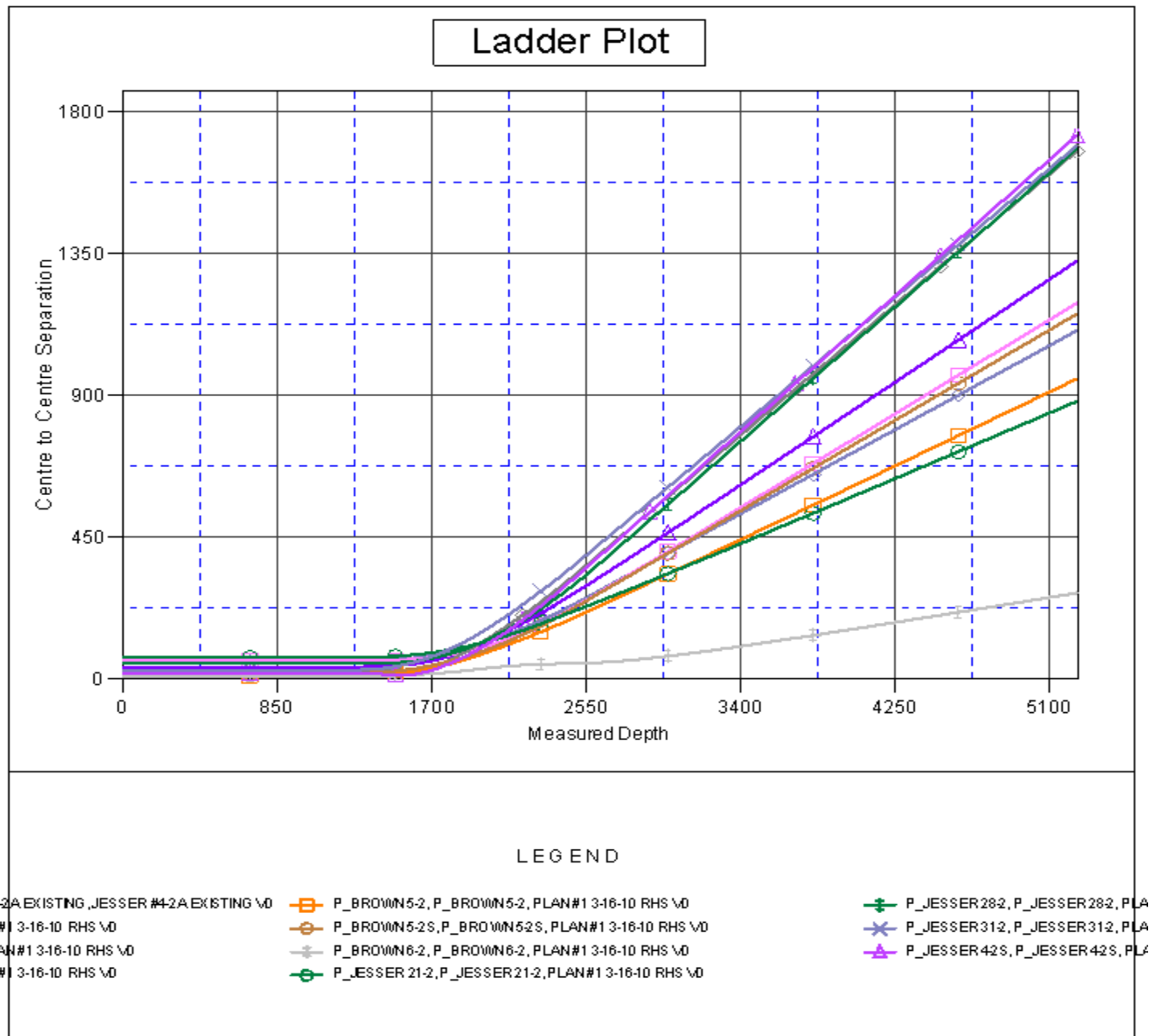
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 4-2S - P_JESSER 4-2S - 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									
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	4,854.05	4,577.11	4,510.37	21.84	15.64	171.30	301.18	-532.75	1,598.37	1,575.53	22.83	70.000	
5,100.00	4,949.00	4,663.25	4,594.39	22.49	16.04	171.30	310.27	-549.43	1,649.16	1,625.80	23.37	70.582	
5,200.00	5,043.94	4,749.39	4,678.41	23.14	16.44	171.29	319.36	-566.11	1,699.95	1,676.06	23.90	71.136	
5,250.61	5,092.00	4,792.98	4,720.93	23.47	16.65	171.29	323.96	-574.55	1,725.66	1,701.50	24.17	71.407	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5158.00ft (Original Well Elev) Coordinates are relative to: P_BROWN 6-2S
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°



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2S
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2S	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2S	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5158.00ft (Original Well Elev) Coordinates are relative to: P_BROWN 6-2S
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°

