



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_WORRIES 5-14 PAD

P_WORRIES 32-14

P_WORRIES 32-14

Plan: PLAN #1 1-29-10 RHS

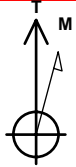
Standard Planning Report

29 January, 2010





P_WORRIES 32-14
COLORADO NORTHERN ZONE - 83
SECTION 14 T4N R65W
1964 FNL 308 FWL
LAT: 40° 18' 51.728 N
LONG: 104° 38' 18.744 W



Azimuths to True North
Magnetic North: 8.97°
Magnetic Field
Strength: 53246.8nT
Dip Angle: 67.05°
Date: 1/29/2010
Model: IGRF2010

WELL DETAILS: P_WORRIES 32-14

+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1358532.43	3240224.81	4691.00	40° 18' 51.728 N	104° 38' 18.744 W	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
1104.73	8.09	203.22	1103.39	-26.23	-11.25	2.00	203.22	28.54	
5451.26	8.09	203.22	5406.61	-588.68	-252.56	0.00	0.00	640.57	
5855.99	0.00	0.00	5810.00	-614.91	-263.81	2.00	180.00	669.11	
7692.99	0.00	0.00	7647.00	-614.91	-263.81	0.00	0.00	669.11	PBHL_WORRIES 32-14(2580 FNL 50 FWL)50'TGT

FORMATION TOP DETAILS

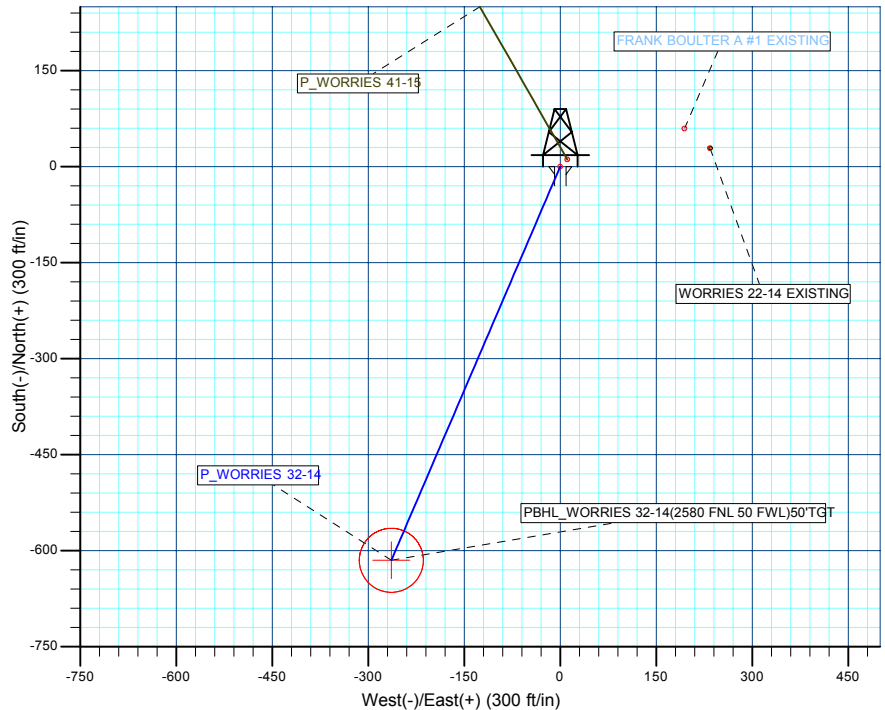
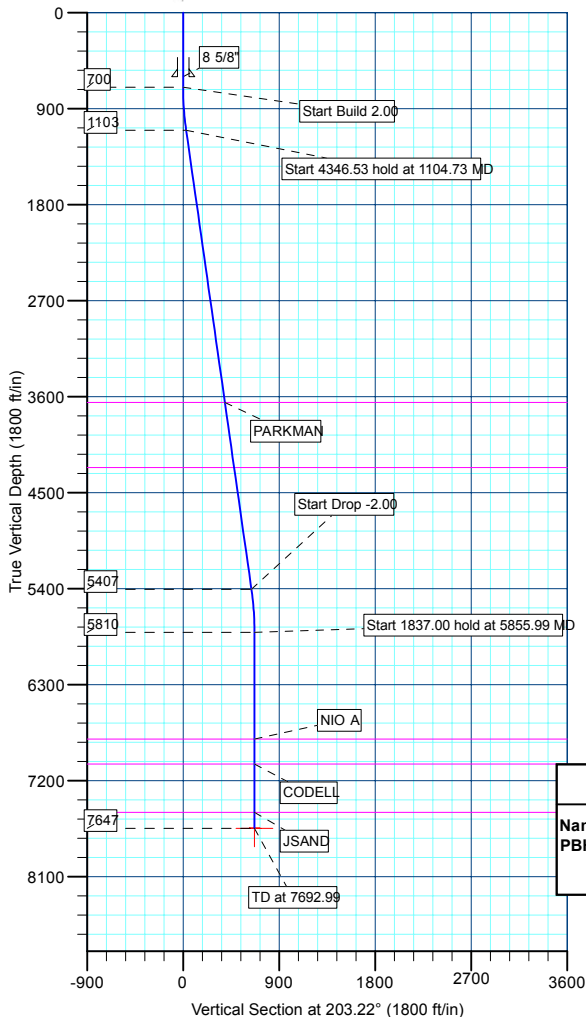
TVDPath	MDPath	Formation
3654.00	3681.01	PARKMAN
4265.00	4298.16	SUSSEX
6810.00	6855.99	NIO A
7045.00	7090.99	CODELL
7497.00	7542.99	JSAND

CASING DETAILS

TVD	MD	Name	Size
600.00	600.00	8 5/8"	8.62



KB ELEV WELL @ 4706.00ft (Original Well Elev)
GRD ELEV: 4691.00



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7647.00	-614.91	-263.81	1357914.99	3239966.98	40° 18' 45.652 N	104° 38' 22.150 W	Circle (Radius: 50.00)

Plan: PLAN #1 1-29-10 RHS (P_WORRIES 32-14/P_WORRIES 32-14)

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site:	WELD_WORRIES 5-14 PAD	North Reference:	True
Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WORRIES 32-14		
Design:	PLAN #1 1-29-10 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_WORRIES 5-14 PAD, SECTION 14 T4N R65W			
Site Position:		Northing:	1,358,543.85 ft	Latitude: 40° 18' 51.840 N
From:	Lat/Long	Easting:	3,240,235.85 ft	Longitude: 104° 38' 18.600 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence: 0.56 °

Well	P_WORRIES 32-14			
Well Position	+N/-S	-11.31 ft	Northing:	1,358,532.43 ft
	+E/-W	-11.15 ft	Easting:	3,240,224.81 ft
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft
			Ground Level:	4,691.00 ft

Wellbore	P_WORRIES 32-14				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/29/2010	8.97	67.05	53,247

Design	PLAN #1 1-29-10 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	203.22

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	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,104.73	8.09	203.22	1,103.39	-26.23	-11.25	2.00	2.00	0.00	203.22	
5,451.26	8.09	203.22	5,406.61	-588.68	-252.56	0.00	0.00	0.00	0.00	
5,855.99	0.00	0.00	5,810.00	-614.91	-263.81	2.00	-2.00	0.00	180.00	
7,692.99	0.00	0.00	7,647.00	-614.91	-263.81	0.00	0.00	0.00	0.00	PBHL_WORRIES 3

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site:	WELD_WORRIES 5-14 PAD	North Reference:	True
Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WORRIES 32-14		
Design:	PLAN #1 1-29-10 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 2.00									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	2.00	203.22	799.98	-1.60	-0.69	1.75	2.00	2.00	0.00
900.00	4.00	203.22	899.84	-6.41	-2.75	6.98	2.00	2.00	0.00
1,000.00	6.00	203.22	999.45	-14.42	-6.19	15.69	2.00	2.00	0.00
1,100.00	8.00	203.22	1,098.70	-25.62	-10.99	27.88	2.00	2.00	0.00
Start 4346.53 hold at 1104.73 MD									
1,104.73	8.09	203.22	1,103.39	-26.23	-11.25	28.54	2.00	2.00	0.00
1,200.00	8.09	203.22	1,197.71	-38.56	-16.54	41.96	0.00	0.00	0.00
1,300.00	8.09	203.22	1,296.71	-51.50	-22.09	56.04	0.00	0.00	0.00
1,400.00	8.09	203.22	1,395.71	-64.44	-27.65	70.12	0.00	0.00	0.00
1,500.00	8.09	203.22	1,494.72	-77.38	-33.20	84.20	0.00	0.00	0.00
1,600.00	8.09	203.22	1,593.72	-90.32	-38.75	98.28	0.00	0.00	0.00
1,700.00	8.09	203.22	1,692.72	-103.26	-44.30	112.36	0.00	0.00	0.00
1,800.00	8.09	203.22	1,791.73	-116.20	-49.85	126.44	0.00	0.00	0.00
1,900.00	8.09	203.22	1,890.73	-129.14	-55.40	140.52	0.00	0.00	0.00
2,000.00	8.09	203.22	1,989.74	-142.08	-60.96	154.60	0.00	0.00	0.00
2,100.00	8.09	203.22	2,088.74	-155.02	-66.51	168.68	0.00	0.00	0.00
2,200.00	8.09	203.22	2,187.74	-167.96	-72.06	182.76	0.00	0.00	0.00
2,300.00	8.09	203.22	2,286.75	-180.90	-77.61	196.85	0.00	0.00	0.00
2,400.00	8.09	203.22	2,385.75	-193.84	-83.16	210.93	0.00	0.00	0.00
2,500.00	8.09	203.22	2,484.75	-206.78	-88.71	225.01	0.00	0.00	0.00
2,600.00	8.09	203.22	2,583.76	-219.72	-94.27	239.09	0.00	0.00	0.00
2,700.00	8.09	203.22	2,682.76	-232.66	-99.82	253.17	0.00	0.00	0.00
2,800.00	8.09	203.22	2,781.76	-245.60	-105.37	267.25	0.00	0.00	0.00
2,900.00	8.09	203.22	2,880.77	-258.54	-110.92	281.33	0.00	0.00	0.00
3,000.00	8.09	203.22	2,979.77	-271.48	-116.47	295.41	0.00	0.00	0.00
3,100.00	8.09	203.22	3,078.78	-284.42	-122.02	309.49	0.00	0.00	0.00
3,200.00	8.09	203.22	3,177.78	-297.36	-127.58	323.57	0.00	0.00	0.00
3,300.00	8.09	203.22	3,276.78	-310.30	-133.13	337.65	0.00	0.00	0.00
3,400.00	8.09	203.22	3,375.79	-323.24	-138.68	351.73	0.00	0.00	0.00
3,500.00	8.09	203.22	3,474.79	-336.18	-144.23	365.82	0.00	0.00	0.00
3,600.00	8.09	203.22	3,573.79	-349.12	-149.78	379.90	0.00	0.00	0.00
PARKMAN									
3,681.01	8.09	203.22	3,654.00	-359.61	-154.28	391.30	0.00	0.00	0.00
3,700.00	8.09	203.22	3,672.80	-362.06	-155.33	393.98	0.00	0.00	0.00
3,800.00	8.09	203.22	3,771.80	-375.00	-160.89	408.06	0.00	0.00	0.00
3,900.00	8.09	203.22	3,870.81	-387.94	-166.44	422.14	0.00	0.00	0.00
4,000.00	8.09	203.22	3,969.81	-400.88	-171.99	436.22	0.00	0.00	0.00
4,100.00	8.09	203.22	4,068.81	-413.82	-177.54	450.30	0.00	0.00	0.00
4,200.00	8.09	203.22	4,167.82	-426.76	-183.09	464.38	0.00	0.00	0.00
SUSSEX									
4,298.16	8.09	203.22	4,265.00	-439.47	-188.54	478.20	0.00	0.00	0.00
4,300.00	8.09	203.22	4,266.82	-439.70	-188.64	478.46	0.00	0.00	0.00
4,400.00	8.09	203.22	4,365.82	-452.64	-194.19	492.54	0.00	0.00	0.00
4,500.00	8.09	203.22	4,464.83	-465.58	-199.75	506.62	0.00	0.00	0.00
4,600.00	8.09	203.22	4,563.83	-478.52	-205.30	520.70	0.00	0.00	0.00
4,700.00	8.09	203.22	4,662.83	-491.46	-210.85	534.79	0.00	0.00	0.00
4,800.00	8.09	203.22	4,761.84	-504.40	-216.40	548.87	0.00	0.00	0.00
4,900.00	8.09	203.22	4,860.84	-517.34	-221.95	562.95	0.00	0.00	0.00
5,000.00	8.09	203.22	4,959.85	-530.29	-227.50	577.03	0.00	0.00	0.00
5,100.00	8.09	203.22	5,058.85	-543.23	-233.06	591.11	0.00	0.00	0.00
5,200.00	8.09	203.22	5,157.85	-556.17	-238.61	605.19	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site:	WELD_WORRIES 5-14 PAD	North Reference:	True
Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WORRIES 32-14		
Design:	PLAN #1 1-29-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	8.09	203.22	5,256.86	-569.11	-244.16	619.27	0.00	0.00	0.00
5,400.00	8.09	203.22	5,355.86	-582.05	-249.71	633.35	0.00	0.00	0.00
Start Drop -2.00									
5,451.26	8.09	203.22	5,406.61	-588.68	-252.56	640.57	0.00	0.00	0.00
5,500.00	7.12	203.22	5,454.92	-594.61	-255.10	647.02	2.00	-2.00	0.00
5,600.00	5.12	203.22	5,554.35	-604.41	-259.30	657.68	2.00	-2.00	0.00
5,700.00	3.12	203.22	5,654.08	-611.01	-262.14	664.87	2.00	-2.00	0.00
5,800.00	1.12	203.22	5,754.01	-614.41	-263.59	668.56	2.00	-2.00	0.00
Start 1837.00 hold at 5855.99 MD									
5,855.99	0.00	0.00	5,810.00	-614.91	-263.81	669.11	2.00	-2.00	0.00
5,900.00	0.00	0.00	5,854.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,000.00	0.00	0.00	5,954.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,100.00	0.00	0.00	6,054.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,200.00	0.00	0.00	6,154.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,300.00	0.00	0.00	6,254.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,400.00	0.00	0.00	6,354.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,500.00	0.00	0.00	6,454.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,600.00	0.00	0.00	6,554.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,700.00	0.00	0.00	6,654.01	-614.91	-263.81	669.11	0.00	0.00	0.00
6,800.00	0.00	0.00	6,754.01	-614.91	-263.81	669.11	0.00	0.00	0.00
NIO A									
6,855.99	0.00	0.00	6,810.00	-614.91	-263.81	669.11	0.00	0.00	0.00
6,900.00	0.00	0.00	6,854.01	-614.91	-263.81	669.11	0.00	0.00	0.00
7,000.00	0.00	0.00	6,954.01	-614.91	-263.81	669.11	0.00	0.00	0.00
CODELL									
7,090.99	0.00	0.00	7,045.00	-614.91	-263.81	669.11	0.00	0.00	0.00
7,100.00	0.00	0.00	7,054.01	-614.91	-263.81	669.11	0.00	0.00	0.00
7,200.00	0.00	0.00	7,154.01	-614.91	-263.81	669.11	0.00	0.00	0.00
7,300.00	0.00	0.00	7,254.01	-614.91	-263.81	669.11	0.00	0.00	0.00
7,400.00	0.00	0.00	7,354.01	-614.91	-263.81	669.11	0.00	0.00	0.00
7,500.00	0.00	0.00	7,454.01	-614.91	-263.81	669.11	0.00	0.00	0.00
JSAND									
7,542.99	0.00	0.00	7,497.00	-614.91	-263.81	669.11	0.00	0.00	0.00
7,600.00	0.00	0.00	7,554.01	-614.91	-263.81	669.11	0.00	0.00	0.00
PBHL_WORRIES 32-14(2580 FNL 50 FWL)50'TGT									
7,692.99	0.00	0.00	7,647.00	-614.91	-263.81	669.11	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_WORRIES 32- - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,647.00	-614.91	-263.81	1,357,914.99	3,239,966.98	40° 18' 45.652 N	104° 38' 22.150 W

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site:	WELD_WORRIES 5-14 PAD	North Reference:	True
Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WORRIES 32-14		
Design:	PLAN #1 1-29-10 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
600.00	600.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,681.01	3,654.00	PARKMAN				
4,298.16	4,265.00	SUSSEX				
6,855.99	6,810.00	NIO A				
7,090.99	7,045.00	CODELL				
7,542.99	7,497.00	JSAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
700.00	700.00	0.00	0.00	Start Build 2.00	
1,104.73	1,103.39	-26.23	-11.25	Start 4346.53 hold at 1104.73 MD	
5,451.26	5,406.61	-588.68	-252.56	Start Drop -2.00	
5,855.99	5,810.00	-614.91	-263.81	Start 1837.00 hold at 5855.99 MD	
7,692.99	7,647.00	-614.91	-263.81	TD at 7692.99	



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_WORRIES 5-14 PAD
P_WORRIES 32-14**

**P_WORRIES 32-14
PLAN #1 1-29-10 RHS**

Anticollision Report

29 January, 2010



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 1-29-10 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 1/29/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	7,692.99	PLAN #1 1-29-10 RHS (P_WORRIES 32-14)	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_WORRIES 5-14 PAD						
FRANK BOULTER A #1 EXISTING - FRANK BOULTER	700.00	700.00	203.08	175.94	7.482	CC
FRANK BOULTER A #1 EXISTING - FRANK BOULTER	900.00	899.84	207.66	172.18	5.853	ES
FRANK BOULTER A #1 EXISTING - FRANK BOULTER	7,692.99	7,647.00	815.33	494.94	2.545	SF
P_WORRIES 41-15 - P_WORRIES 41-15 - PLAN #1 10-	700.00	700.00	15.88	12.99	5.499	CC, ES
P_WORRIES 41-15 - P_WORRIES 41-15 - PLAN #1 10-	800.00	799.75	18.12	14.82	5.481	SF
WORRIES 22-14 EXISTING - WORRIES 22-14 EXISTIN	700.00	700.00	235.93	208.78	8.692	CC
WORRIES 22-14 EXISTING - WORRIES 22-14 EXISTIN	900.00	899.84	239.52	204.02	6.748	ES
WORRIES 22-14 EXISTING - WORRIES 22-14 EXISTIN	7,500.00	7,454.01	813.97	501.56	2.605	SF

Offset Design										WELD_WORRIES 5-14 PAD - FRANK BOULTER A #1 EXISTING - FRANK BOULTER A #1 EXISTING			Offset Site Error:		0.00 ft	
Survey Program: 0-UNKNOWN										Offset Well Error:		0.00 ft				
Reference		Offset		Semi Major Axis			Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
0.00	0.00	0.00	0.00	0.00	0.00	72.91	59.68	194.11	203.08							
100.00	100.00	100.00	100.00	0.10	1.70	72.91	59.68	194.11	203.08	201.28	1.80	113.104				
200.00	200.00	200.00	200.00	0.32	5.70	72.91	59.68	194.11	203.08	197.06	6.02	33.733				
300.00	300.00	300.00	300.00	0.55	9.70	72.91	59.68	194.11	203.08	192.84	10.25	19.822				
400.00	400.00	400.00	400.00	0.77	13.70	72.91	59.68	194.11	203.08	188.61	14.47	14.035				
500.00	500.00	500.00	500.00	0.99	17.70	72.91	59.68	194.11	203.08	184.39	18.69	10.863				
600.00	600.00	600.00	600.00	1.22	21.70	72.91	59.68	194.11	203.08	180.16	22.92	8.861				
700.00	700.00	700.00	700.00	1.44	25.70	72.91	59.68	194.11	203.08	175.94	27.14	7.482 CC				
800.00	799.98	799.98	799.98	1.64	29.70	-130.67	59.68	194.11	204.21	172.88	31.33	6.517				
900.00	899.84	899.84	899.84	1.82	33.69	-131.71	59.68	194.11	207.66	172.18	35.48	5.853 ES				
1,000.00	999.45	999.45	999.45	2.03	37.68	-133.37	59.68	194.11	213.57	173.96	39.60	5.393				
1,104.73	1,103.39	1,103.39	1,103.39	2.28	41.84	-135.64	59.68	194.11	222.61	178.74	43.87	5.074				
1,200.00	1,197.71	1,197.71	1,197.71	2.53	45.61	-137.94	59.68	194.11	232.44	184.60	47.83	4.859				
1,300.00	1,296.71	1,296.71	1,296.71	2.81	49.57	-140.15	59.68	194.11	243.12	191.12	51.99	4.676				
1,400.00	1,395.71	1,395.71	1,395.71	3.11	53.53	-142.18	59.68	194.11	254.13	197.97	56.16	4.525				
1,500.00	1,494.72	1,494.72	1,494.72	3.42	57.49	-144.04	59.68	194.11	265.43	205.11	60.33	4.400				
1,600.00	1,593.72	1,593.72	1,593.72	3.74	61.45	-145.74	59.68	194.11	276.99	212.50	64.49	4.295				
1,700.00	1,692.72	1,692.72	1,692.72	4.06	65.41	-147.31	59.68	194.11	288.77	220.11	68.66	4.206				
1,800.00	1,791.73	1,791.73	1,791.73	4.39	69.37	-148.76	59.68	194.11	300.75	227.93	72.83	4.130				
1,900.00	1,890.73	1,890.73	1,890.73	4.72	73.33	-150.09	59.68	194.11	312.91	235.92	76.99	4.064				

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_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 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						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	
2,000.00	1,989.74	1,989.74	1,989.74	5.06	77.29	-151.32	59.68	194.11	325.22	244.06	81.16	4.007	
2,100.00	2,088.74	2,088.74	2,088.74	5.40	81.25	-152.47	59.68	194.11	337.67	252.35	85.32	3.958	
2,200.00	2,187.74	2,187.74	2,187.74	5.74	85.21	-153.53	59.68	194.11	350.24	260.76	89.48	3.914	
2,300.00	2,286.75	2,286.75	2,286.75	6.08	89.17	-154.52	59.68	194.11	362.92	269.28	93.65	3.875	
2,400.00	2,385.75	2,385.75	2,385.75	6.42	93.13	-155.44	59.68	194.11	375.71	277.90	97.81	3.841	
2,500.00	2,484.75	2,484.75	2,484.75	6.76	97.09	-156.30	59.68	194.11	388.58	286.61	101.97	3.811	
2,600.00	2,583.76	2,583.76	2,583.76	7.11	101.05	-157.11	59.68	194.11	401.53	295.40	106.13	3.783	
2,700.00	2,682.76	2,682.76	2,682.76	7.45	105.01	-157.87	59.68	194.11	414.56	304.27	110.29	3.759	
2,800.00	2,781.76	2,781.76	2,781.76	7.80	108.97	-158.58	59.68	194.11	427.65	313.20	114.45	3.736	
2,900.00	2,880.77	2,880.77	2,880.77	8.15	112.93	-159.24	59.68	194.11	440.81	322.19	118.61	3.716	
3,000.00	2,979.77	2,979.77	2,979.77	8.49	116.89	-159.87	59.68	194.11	454.02	331.24	122.77	3.698	
3,100.00	3,078.78	3,078.78	3,078.78	8.84	120.85	-160.47	59.68	194.11	467.28	340.34	126.94	3.681	
3,200.00	3,177.78	3,177.78	3,177.78	9.19	124.81	-161.03	59.68	194.11	480.59	349.49	131.10	3.666	
3,300.00	3,276.78	3,276.78	3,276.78	9.54	128.77	-161.56	59.68	194.11	493.94	358.68	135.26	3.652	
3,400.00	3,375.79	3,375.79	3,375.79	9.89	132.73	-162.06	59.68	194.11	507.33	367.91	139.42	3.639	
3,500.00	3,474.79	3,474.79	3,474.79	10.24	136.69	-162.54	59.68	194.11	520.75	377.18	143.58	3.627	
3,600.00	3,573.79	3,573.79	3,573.79	10.59	140.65	-162.99	59.68	194.11	534.21	386.48	147.74	3.616	
3,700.00	3,672.80	3,672.80	3,672.80	10.94	144.61	-163.42	59.68	194.11	547.71	395.81	151.90	3.606	
3,800.00	3,771.80	3,771.80	3,771.80	11.29	148.57	-163.83	59.68	194.11	561.23	405.17	156.06	3.596	
3,900.00	3,870.81	3,870.81	3,870.81	11.64	152.53	-164.22	59.68	194.11	574.77	414.55	160.22	3.587	
4,000.00	3,969.81	3,969.81	3,969.81	11.99	156.49	-164.59	59.68	194.11	588.35	423.96	164.38	3.579	
4,100.00	4,068.81	4,068.81	4,068.81	12.34	160.45	-164.95	59.68	194.11	601.94	433.40	168.54	3.571	
4,200.00	4,167.82	4,167.82	4,167.82	12.69	164.41	-165.29	59.68	194.11	615.56	442.85	172.70	3.564	
4,300.00	4,266.82	4,266.82	4,266.82	13.04	168.37	-165.61	59.68	194.11	629.20	452.33	176.87	3.557	
4,400.00	4,365.82	4,365.82	4,365.82	13.39	172.33	-165.93	59.68	194.11	642.85	461.83	181.03	3.551	
4,500.00	4,464.83	4,464.83	4,464.83	13.74	176.29	-166.22	59.68	194.11	656.53	471.34	185.19	3.545	
4,600.00	4,563.83	4,563.83	4,563.83	14.10	180.25	-166.51	59.68	194.11	670.22	480.87	189.35	3.540	
4,700.00	4,662.83	4,662.83	4,662.83	14.45	184.21	-166.79	59.68	194.11	683.93	490.42	193.51	3.534	
4,800.00	4,761.84	4,761.84	4,761.84	14.80	188.17	-167.05	59.68	194.11	697.65	499.98	197.67	3.529	
4,900.00	4,860.84	4,860.84	4,860.84	15.15	192.13	-167.30	59.68	194.11	711.39	509.55	201.84	3.525	
5,000.00	4,959.85	4,959.85	4,959.85	15.50	196.09	-167.55	59.68	194.11	725.14	519.14	206.00	3.520	
5,100.00	5,058.85	5,058.85	5,058.85	15.85	200.05	-167.78	59.68	194.11	738.90	528.74	210.16	3.516	
5,200.00	5,157.85	5,157.85	5,157.85	16.21	204.01	-168.01	59.68	194.11	752.67	538.35	214.32	3.512	
5,300.00	5,256.86	5,256.86	5,256.86	16.56	207.97	-168.23	59.68	194.11	766.46	547.97	218.48	3.508	
5,400.00	5,355.86	5,355.86	5,355.86	16.91	211.93	-168.44	59.68	194.11	780.25	557.61	222.65	3.504	
5,451.26	5,406.61	5,406.61	5,406.61	17.09	213.96	-168.55	59.68	194.11	787.33	562.55	224.78	3.503	
5,500.00	5,454.92	5,454.92	5,454.92	17.23	215.90	-168.66	59.68	194.11	793.66	566.43	227.23	3.493	
5,600.00	5,554.35	5,554.35	5,554.35	17.45	219.87	-168.85	59.68	194.11	804.11	571.97	232.14	3.464	
5,700.00	5,654.08	5,654.08	5,654.08	17.64	223.86	-168.98	59.68	194.11	811.16	574.35	236.81	3.425	
5,800.00	5,754.01	5,754.01	5,754.01	17.80	227.86	-169.04	59.68	194.11	814.80	573.57	241.23	3.378	
5,855.99	5,810.00	5,810.00	5,810.00	17.88	230.10	34.17	59.68	194.11	815.33	571.75	243.59	3.347	
5,900.00	5,854.01	5,854.01	5,854.01	17.94	231.86	34.17	59.68	194.11	815.33	569.90	245.43	3.322	
6,000.00	5,954.01	5,954.01	5,954.01	18.07	235.86	34.17	59.68	194.11	815.33	565.73	249.60	3.267	
6,100.00	6,054.01	6,054.01	6,054.01	18.20	239.86	34.17	59.68	194.11	815.33	561.56	253.77	3.213	
6,200.00	6,154.01	6,154.01	6,154.01	18.33	243.86	34.17	59.68	194.11	815.33	557.39	257.94	3.161	
6,300.00	6,254.01	6,254.01	6,254.01	18.46	247.86	34.17	59.68	194.11	815.33	553.22	262.12	3.111	
6,400.00	6,354.01	6,354.01	6,354.01	18.59	251.86	34.17	59.68	194.11	815.33	549.04	266.29	3.062	
6,500.00	6,454.01	6,454.01	6,454.01	18.73	255.86	34.17	59.68	194.11	815.33	544.86	270.47	3.015	
6,600.00	6,554.01	6,554.01	6,554.01	18.86	259.86	34.17	59.68	194.11	815.33	540.69	274.65	2.969	
6,700.00	6,654.01	6,654.01	6,654.01	19.00	263.86	34.17	59.68	194.11	815.33	536.51	278.83	2.924	
6,800.00	6,754.01	6,754.01	6,754.01	19.14	267.86	34.17	59.68	194.11	815.33	532.33	283.01	2.881	
6,900.00	6,854.01	6,854.01	6,854.01	19.28	271.86	34.17	59.68	194.11	815.33	528.14	287.19	2.839	

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_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WORRIES 5-14 PAD - FRANK BOULTER A #1 EXISTING - FRANK BOULTER A #1 EXISTING												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
7,000.00	6,954.01	6,954.01	6,954.01	19.43	275.86	34.17	59.68	194.11	815.33	523.96	291.37	2.798	
7,100.00	7,054.01	7,054.01	7,054.01	19.57	279.86	34.17	59.68	194.11	815.33	519.78	295.56	2.759	
7,200.00	7,154.01	7,154.01	7,154.01	19.72	283.86	34.17	59.68	194.11	815.33	515.59	299.74	2.720	
7,300.00	7,254.01	7,254.01	7,254.01	19.87	287.86	34.17	59.68	194.11	815.33	511.40	303.93	2.683	
7,400.00	7,354.01	7,354.01	7,354.01	20.02	291.86	34.17	59.68	194.11	815.33	507.22	308.12	2.646	
7,500.00	7,454.01	7,454.01	7,454.01	20.17	295.86	34.17	59.68	194.11	815.33	503.03	312.30	2.611	
7,600.00	7,554.01	7,554.01	7,554.01	20.32	299.86	34.17	59.68	194.11	815.33	498.84	316.49	2.576	
7,692.99	7,647.00	7,647.00	7,647.00	20.46	303.58	34.17	59.68	194.11	815.33	494.94	320.39	2.545 SF	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 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	44.62	11.31	11.15	15.88				
100.00	100.00	100.00	100.00	0.10	0.10	44.62	11.31	11.15	15.88	15.69	0.19	83.129	
200.00	200.00	200.00	200.00	0.32	0.32	44.62	11.31	11.15	15.88	15.24	0.64	24.793	
300.00	300.00	300.00	300.00	0.55	0.55	44.62	11.31	11.15	15.88	14.79	1.09	14.569	
400.00	400.00	400.00	400.00	0.77	0.77	44.62	11.31	11.15	15.88	14.34	1.54	10.315	
500.00	500.00	500.00	500.00	0.99	0.99	44.62	11.31	11.15	15.88	13.89	1.99	7.984	
600.00	600.00	600.00	600.00	1.22	1.22	44.62	11.31	11.15	15.88	13.44	2.44	6.512	
700.00	700.00	700.00	700.00	1.44	1.44	44.62	11.31	11.15	15.88	12.99	2.89	5.499 CC, ES	
800.00	799.98	799.75	799.73	1.64	1.67	-165.91	12.81	10.29	18.12	14.82	3.31	5.481 SF	
900.00	899.84	898.93	898.77	1.82	1.89	-179.38	17.30	7.73	25.95	22.24	3.70	7.005	
1,000.00	999.45	996.96	996.42	2.03	2.12	170.61	24.65	3.52	40.38	36.27	4.11	9.826	
1,104.73	1,103.39	1,097.81	1,096.53	2.28	2.38	164.47	35.24	-2.54	62.47	57.92	4.54	13.749	
1,200.00	1,197.71	1,187.86	1,185.50	2.53	2.63	160.98	47.28	-9.42	86.99	82.02	4.97	17.503	
1,300.00	1,296.71	1,280.81	1,276.83	2.81	2.93	158.13	62.24	-17.97	115.53	110.10	5.43	21.266	
1,400.00	1,395.71	1,372.00	1,365.86	3.11	3.27	155.82	79.41	-27.79	146.91	141.00	5.91	24.860	
1,500.00	1,494.72	1,463.68	1,454.75	3.42	3.64	153.89	98.85	-38.91	180.80	174.39	6.40	28.236	
1,600.00	1,593.72	1,557.47	1,545.60	3.74	4.05	152.48	119.08	-50.48	215.18	208.26	6.91	31.122	
1,700.00	1,692.72	1,651.26	1,636.46	4.06	4.48	151.46	139.31	-62.05	249.64	242.21	7.43	33.587	
1,800.00	1,791.73	1,745.06	1,727.31	4.39	4.91	150.69	159.54	-73.62	284.16	276.20	7.96	35.707	
1,900.00	1,890.73	1,838.85	1,818.16	4.72	5.36	150.08	179.77	-85.19	318.71	310.22	8.49	37.544	
2,000.00	1,989.74	1,932.64	1,909.01	5.06	5.81	149.59	200.00	-96.76	353.29	344.27	9.02	39.149	
2,100.00	2,088.74	2,026.44	1,999.87	5.40	6.27	149.19	220.22	-108.33	387.89	378.32	9.56	40.560	
2,200.00	2,187.74	2,120.23	2,090.72	5.74	6.73	148.86	240.45	-119.90	422.50	412.39	10.11	41.809	
2,300.00	2,286.75	2,214.02	2,181.57	6.08	7.20	148.57	260.68	-131.46	457.12	446.47	10.65	42.920	
2,400.00	2,385.75	2,307.82	2,272.42	6.42	7.66	148.33	280.91	-143.03	491.75	480.55	11.20	43.916	
2,500.00	2,484.75	2,401.61	2,363.27	6.76	8.13	148.12	301.14	-154.60	526.38	514.64	11.75	44.811	
2,600.00	2,583.76	2,495.40	2,454.13	7.11	8.61	147.93	321.37	-166.17	561.03	548.73	12.30	45.621	
2,700.00	2,682.76	2,589.20	2,544.98	7.45	9.08	147.77	341.59	-177.74	595.67	582.82	12.85	46.356	
2,800.00	2,781.76	2,682.99	2,635.83	7.80	9.56	147.62	361.82	-189.31	630.32	616.92	13.40	47.026	
2,900.00	2,880.77	2,776.78	2,726.68	8.15	10.03	147.49	382.05	-200.88	664.98	651.02	13.96	47.639	
3,000.00	2,979.77	2,870.58	2,817.54	8.49	10.51	147.37	402.28	-212.45	699.63	685.12	14.51	48.203	
3,100.00	3,078.78	2,964.37	2,908.39	8.84	10.99	147.27	422.51	-224.01	734.29	719.22	15.07	48.721	
3,200.00	3,177.78	3,058.16	2,999.24	9.19	11.47	147.17	442.74	-235.58	768.95	753.32	15.63	49.201	
3,300.00	3,276.78	3,151.96	3,090.09	9.54	11.95	147.08	462.97	-247.15	803.61	787.43	16.19	49.645	
3,400.00	3,375.79	3,245.75	3,180.95	9.89	12.43	147.00	483.19	-258.72	838.28	821.53	16.75	50.058	
3,500.00	3,474.79	3,339.54	3,271.80	10.24	12.91	146.92	503.42	-270.29	872.94	855.64	17.31	50.443	
3,600.00	3,573.79	3,433.34	3,362.65	10.59	13.39	146.85	523.65	-281.86	907.61	889.75	17.87	50.802	
3,700.00	3,672.80	3,527.13	3,453.50	10.94	13.87	146.79	543.88	-293.43	942.28	923.85	18.43	51.138	
3,800.00	3,771.80	3,620.92	3,544.36	11.29	14.35	146.73	564.11	-305.00	976.95	957.96	18.99	51.453	
3,900.00	3,870.81	3,753.96	3,673.80	11.64	14.90	146.70	590.73	-320.22	1,010.07	990.47	19.60	51.525	
4,000.00	3,969.81	3,898.00	3,815.38	11.99	15.38	146.82	613.66	-333.34	1,038.84	1,018.64	20.20	51.428	
4,100.00	4,068.81	4,045.75	3,961.80	12.34	15.77	147.07	630.74	-343.10	1,063.00	1,042.23	20.78	51.162	
4,200.00	4,167.82	4,196.54	4,112.07	12.69	16.08	147.46	641.39	-349.19	1,082.43	1,061.10	21.34	50.733	
4,300.00	4,266.82	4,349.60	4,265.06	13.04	16.30	147.99	645.17	-351.36	1,097.01	1,075.15	21.87	50.171	
4,400.00	4,365.82	4,450.37	4,365.82	13.39	16.42	148.38	645.17	-351.36	1,109.01	1,086.69	22.32	49.684	
4,500.00	4,464.83	4,549.38	4,464.83	13.74	16.54	148.75	645.17	-351.36	1,121.06	1,098.28	22.78	49.208	
4,600.00	4,563.83	4,648.38	4,563.83	14.10	16.67	149.12	645.17	-351.36	1,133.15	1,109.91	23.24	48.753	
4,700.00	4,662.83	4,747.38	4,662.83	14.45	16.79	149.48	645.17	-351.36	1,145.29	1,121.59	23.70	48.319	
4,800.00	4,761.84	4,846.39	4,761.84	14.80	16.92	149.84	645.17	-351.36	1,157.47	1,133.31	24.16	47.903	
4,900.00	4,860.84	4,945.39	4,860.84	15.15	17.06	150.18	645.17	-351.36	1,169.70	1,145.08	24.62	47.505	
5,000.00	4,959.85	5,044.40	4,959.85	15.50	17.19	150.52	645.17	-351.36	1,181.97	1,156.89	25.08	47.124	
5,100.00	5,058.85	5,143.40	5,058.85	15.85	17.32	150.85	645.17	-351.36	1,194.27	1,168.73	25.54	46.759	

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_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WORRIES 5-14 PAD - P_WORRIES 41-15 - P_WORRIES 41-15 - PLAN #1 10-08-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.00	5,157.85	5,242.40	5,157.85	16.21	17.46	151.18	645.17	-351.36	1,206.62	1,180.62	26.00	46.409	
5,300.00	5,256.86	5,341.41	5,256.86	16.56	17.60	151.49	645.17	-351.36	1,219.00	1,192.54	26.46	46.072	
5,400.00	5,355.86	5,440.41	5,355.86	16.91	17.74	151.81	645.17	-351.36	1,231.42	1,204.51	26.92	45.749	
5,451.26	5,406.61	5,491.16	5,406.61	17.09	17.81	151.96	645.17	-351.36	1,237.80	1,210.65	27.15	45.589	
5,500.00	5,454.92	5,539.47	5,454.92	17.23	17.88	152.16	645.17	-351.36	1,243.51	1,216.10	27.41	45.364	
5,600.00	5,554.35	5,638.90	5,554.35	17.45	18.03	152.47	645.17	-351.36	1,252.97	1,225.08	27.89	44.926	
5,700.00	5,654.08	5,738.63	5,654.08	17.64	18.17	152.68	645.17	-351.36	1,259.35	1,231.02	28.33	44.454	
5,800.00	5,754.01	5,838.56	5,754.01	17.80	18.32	152.79	645.17	-351.36	1,262.64	1,233.91	28.73	43.950	
5,855.99	5,810.00	5,894.55	5,810.00	17.88	18.40	-3.97	645.17	-351.36	1,263.12	1,234.18	28.94	43.640	
5,900.00	5,854.01	5,938.55	5,854.01	17.94	18.47	-3.97	645.17	-351.36	1,263.12	1,234.02	29.11	43.398	
6,000.00	5,954.01	6,038.55	5,954.01	18.07	18.62	-3.97	645.17	-351.36	1,263.12	1,233.66	29.46	42.878	
6,100.00	6,054.01	6,138.55	6,054.01	18.20	18.78	-3.97	645.17	-351.36	1,263.12	1,233.31	29.81	42.366	
6,200.00	6,154.01	6,238.55	6,154.01	18.33	18.93	-3.97	645.17	-351.36	1,263.12	1,232.95	30.17	41.863	
6,300.00	6,254.01	6,338.55	6,254.01	18.46	19.09	-3.97	645.17	-351.36	1,263.12	1,232.59	30.53	41.369	
6,400.00	6,354.01	6,438.55	6,354.01	18.59	19.24	-3.97	645.17	-351.36	1,263.12	1,232.23	30.90	40.883	
6,500.00	6,454.01	6,538.55	6,454.01	18.73	19.40	-3.97	645.17	-351.36	1,263.12	1,231.86	31.26	40.405	
6,600.00	6,554.01	6,638.55	6,554.01	18.86	19.56	-3.97	645.17	-351.36	1,263.12	1,231.49	31.63	39.936	
6,700.00	6,654.01	6,738.55	6,654.01	19.00	19.72	-3.97	645.17	-351.36	1,263.12	1,231.12	32.00	39.475	
6,800.00	6,754.01	6,838.55	6,754.01	19.14	19.88	-3.97	645.17	-351.36	1,263.12	1,230.75	32.37	39.022	
6,900.00	6,854.01	6,938.55	6,854.01	19.28	20.05	-3.97	645.17	-351.36	1,263.12	1,230.38	32.74	38.577	
7,000.00	6,954.01	7,038.55	6,954.01	19.43	20.21	-3.97	645.17	-351.36	1,263.12	1,230.00	33.12	38.140	
7,100.00	7,054.01	7,138.55	7,054.01	19.57	20.38	-3.97	645.17	-351.36	1,263.12	1,229.63	33.50	37.711	
7,200.00	7,154.01	7,238.55	7,154.01	19.72	20.55	-3.97	645.17	-351.36	1,263.12	1,229.25	33.87	37.289	
7,300.00	7,254.01	7,258.55	7,174.00	19.87	20.58	-3.97	645.17	-351.36	1,265.65	1,231.56	34.09	37.123	
7,400.00	7,354.01	7,258.55	7,174.00	20.02	20.58	-3.97	645.17	-351.36	1,275.88	1,241.61	34.27	37.226	
7,500.00	7,454.01	7,258.55	7,174.00	20.17	20.58	-3.97	645.17	-351.36	1,293.79	1,259.33	34.46	37.550	
7,600.00	7,554.01	7,258.55	7,174.00	20.32	20.58	-3.97	645.17	-351.36	1,319.05	1,284.41	34.64	38.081	
7,692.99	7,647.00	7,258.55	7,174.00	20.46	20.58	-3.97	645.17	-351.36	1,348.78	1,313.97	34.81	38.749	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WORRIES 5-14 PAD - WORRIES 22-14 EXISTING - WORRIES 22-14 EXISTING - Design #1_/_													Offset Site Error: 0.00 ft
Survey Program: 0-UNKNOWN													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	82.94	28.98	234.14	235.93				
100.00	100.00	100.00	100.00	0.10	1.70	82.94	28.98	234.14	235.93	234.13	1.80	131.397	
200.00	200.00	200.00	200.00	0.32	5.70	82.94	28.98	234.14	235.93	229.91	6.02	39.188	
300.00	300.00	300.00	300.00	0.55	9.70	82.94	28.98	234.14	235.93	225.68	10.25	23.028	
400.00	400.00	400.00	400.00	0.77	13.70	82.94	28.98	234.14	235.93	221.46	14.47	16.305	
500.00	500.00	500.00	500.00	0.99	17.70	82.94	28.98	234.14	235.93	217.23	18.69	12.620	
600.00	600.00	600.00	600.00	1.22	21.70	82.94	28.98	234.14	235.93	213.01	22.92	10.294	
700.00	700.00	700.00	700.00	1.44	25.70	82.94	28.98	234.14	235.93	208.78	27.14	8.692 CC	
800.00	799.98	799.98	799.98	1.64	29.70	-120.63	28.98	234.14	236.81	205.47	31.34	7.557	
900.00	899.84	899.84	899.84	1.82	33.69	-121.66	28.98	234.14	239.52	204.02	35.50	6.748 ES	
1,000.00	999.45	999.45	999.45	2.03	37.68	-123.31	28.98	234.14	244.21	204.57	39.64	6.160	
1,104.73	1,103.39	1,103.39	1,103.39	2.28	41.84	-125.63	28.98	234.14	251.53	207.57	43.96	5.722	
1,200.00	1,197.71	1,197.71	1,197.71	2.53	45.61	-128.02	28.98	234.14	259.62	211.69	47.93	5.417	
1,300.00	1,296.71	1,296.71	1,296.71	2.81	49.57	-130.37	28.98	234.14	268.58	216.46	52.11	5.154	
1,400.00	1,395.71	1,395.71	1,395.71	3.11	53.53	-132.57	28.98	234.14	277.95	221.66	56.29	4.938	
1,500.00	1,494.72	1,494.72	1,494.72	3.42	57.49	-134.63	28.98	234.14	287.72	227.24	60.48	4.757	
1,600.00	1,593.72	1,593.72	1,593.72	3.74	61.45	-136.55	28.98	234.14	297.83	233.17	64.66	4.606	
1,700.00	1,692.72	1,692.72	1,692.72	4.06	65.41	-138.34	28.98	234.14	308.25	239.41	68.84	4.478	
1,800.00	1,791.73	1,791.73	1,791.73	4.39	69.37	-140.02	28.98	234.14	318.95	245.93	73.02	4.368	
1,900.00	1,890.73	1,890.73	1,890.73	4.72	73.33	-141.58	28.98	234.14	329.91	252.71	77.20	4.274	
2,000.00	1,989.74	1,989.74	1,989.74	5.06	77.29	-143.05	28.98	234.14	341.09	259.72	81.37	4.192	
2,100.00	2,088.74	2,088.74	2,088.74	5.40	81.25	-144.42	28.98	234.14	352.48	266.94	85.55	4.120	
2,200.00	2,187.74	2,187.74	2,187.74	5.74	85.21	-145.70	28.98	234.14	364.07	274.35	89.72	4.058	
2,300.00	2,286.75	2,286.75	2,286.75	6.08	89.17	-146.91	28.98	234.14	375.82	281.93	93.89	4.003	
2,400.00	2,385.75	2,385.75	2,385.75	6.42	93.13	-148.04	28.98	234.14	387.72	289.67	98.05	3.954	
2,500.00	2,484.75	2,484.75	2,484.75	6.76	97.09	-149.11	28.98	234.14	399.77	297.55	102.22	3.911	
2,600.00	2,583.76	2,583.76	2,583.76	7.11	101.05	-150.11	28.98	234.14	411.95	305.57	106.38	3.872	
2,700.00	2,682.76	2,682.76	2,682.76	7.45	105.01	-151.06	28.98	234.14	424.25	313.70	110.55	3.838	
2,800.00	2,781.76	2,781.76	2,781.76	7.80	108.97	-151.95	28.98	234.14	436.65	321.94	114.71	3.807	
2,900.00	2,880.77	2,880.77	2,880.77	8.15	112.93	-152.79	28.98	234.14	449.15	330.28	118.87	3.778	
3,000.00	2,979.77	2,979.77	2,979.77	8.49	116.89	-153.59	28.98	234.14	461.74	338.71	123.04	3.753	
3,100.00	3,078.78	3,078.78	3,078.78	8.84	120.85	-154.34	28.98	234.14	474.42	347.22	127.20	3.730	
3,200.00	3,177.78	3,177.78	3,177.78	9.19	124.81	-155.06	28.98	234.14	487.17	355.82	131.36	3.709	
3,300.00	3,276.78	3,276.78	3,276.78	9.54	128.77	-155.74	28.98	234.14	500.00	364.48	135.52	3.690	
3,400.00	3,375.79	3,375.79	3,375.79	9.89	132.73	-156.38	28.98	234.14	512.89	373.21	139.68	3.672	
3,500.00	3,474.79	3,474.79	3,474.79	10.24	136.69	-157.00	28.98	234.14	525.84	382.00	143.84	3.656	
3,600.00	3,573.79	3,573.79	3,573.79	10.59	140.65	-157.58	28.98	234.14	538.85	390.85	148.00	3.641	
3,700.00	3,672.80	3,672.80	3,672.80	10.94	144.61	-158.14	28.98	234.14	551.91	399.75	152.16	3.627	
3,800.00	3,771.80	3,771.80	3,771.80	11.29	148.57	-158.67	28.98	234.14	565.02	408.70	156.32	3.615	
3,900.00	3,870.81	3,870.81	3,870.81	11.64	152.53	-159.18	28.98	234.14	578.18	417.70	160.48	3.603	
4,000.00	3,969.81	3,969.81	3,969.81	11.99	156.49	-159.66	28.98	234.14	591.37	426.74	164.63	3.592	
4,100.00	4,068.81	4,068.81	4,068.81	12.34	160.45	-160.12	28.98	234.14	604.61	435.82	168.79	3.582	
4,200.00	4,167.82	4,167.82	4,167.82	12.69	164.41	-160.57	28.98	234.14	617.89	444.94	172.95	3.573	
4,300.00	4,266.82	4,266.82	4,266.82	13.04	168.37	-160.99	28.98	234.14	631.20	454.09	177.11	3.564	
4,400.00	4,365.82	4,365.82	4,365.82	13.39	172.33	-161.40	28.98	234.14	644.54	463.27	181.27	3.556	
4,500.00	4,464.83	4,464.83	4,464.83	13.74	176.29	-161.79	28.98	234.14	657.92	472.48	185.43	3.548	
4,600.00	4,563.83	4,563.83	4,563.83	14.10	180.25	-162.17	28.98	234.14	671.32	481.73	189.59	3.541	
4,700.00	4,662.83	4,662.83	4,662.83	14.45	184.21	-162.53	28.98	234.14	684.75	491.00	193.75	3.534	
4,800.00	4,761.84	4,761.84	4,761.84	14.80	188.17	-162.87	28.98	234.14	698.20	500.29	197.91	3.528	
4,900.00	4,860.84	4,860.84	4,860.84	15.15	192.13	-163.21	28.98	234.14	711.68	509.61	202.07	3.522	
5,000.00	4,959.85	4,959.85	4,959.85	15.50	196.09	-163.53	28.98	234.14	725.19	518.96	206.23	3.516	
5,100.00	5,058.85	5,058.85	5,058.85	15.85	200.05	-163.84	28.98	234.14	738.71	528.32	210.39	3.511	

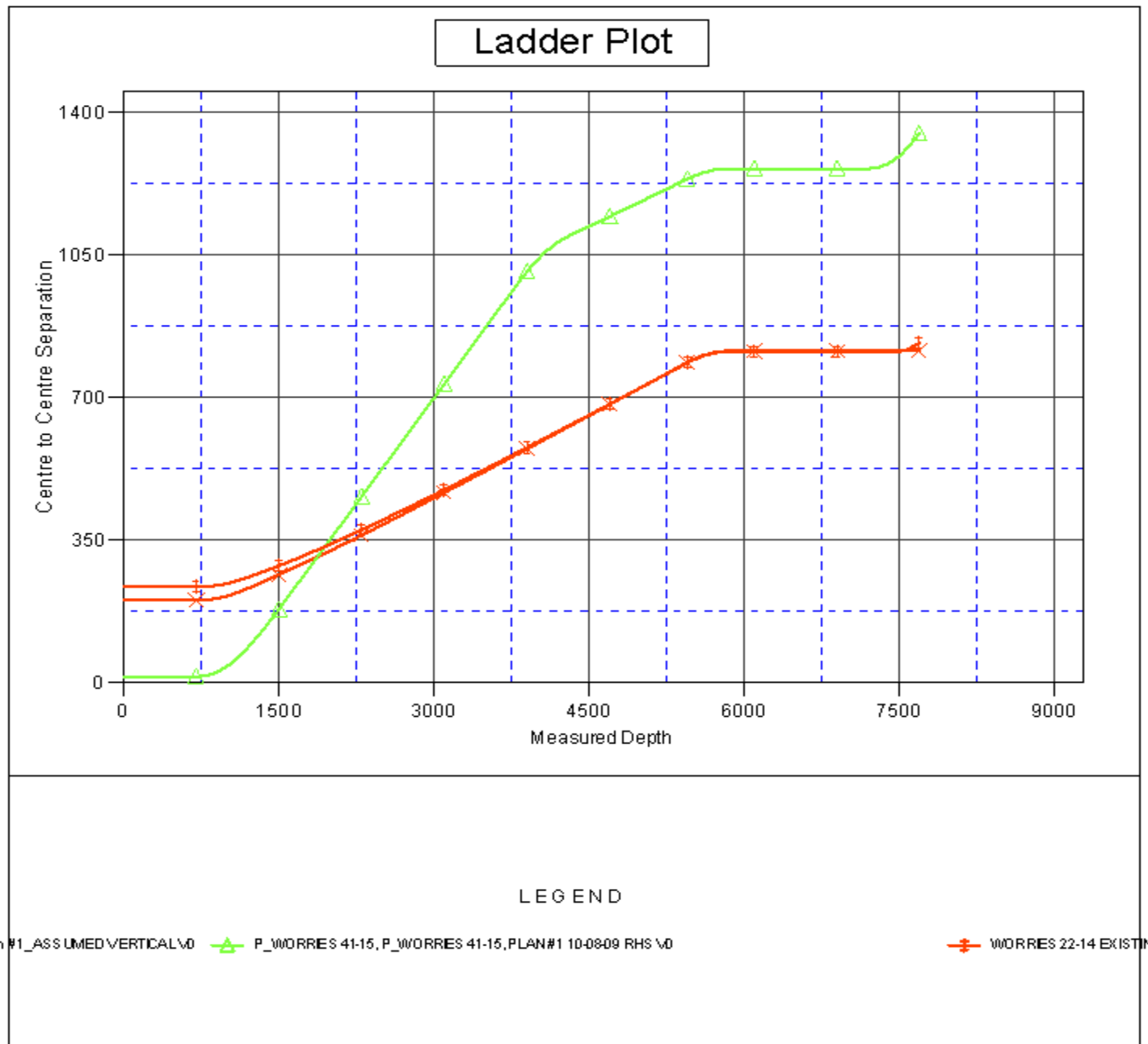
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WORRIES 5-14 PAD - WORRIES 22-14 EXISTING - WORRIES 22-14 EXISTING - Design #1_/_													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	
5,200.00	5,157.85	5,157.85	5,157.85	16.21	204.01	-164.14	28.98	234.14	752.26	537.71	214.55	3.506		
5,300.00	5,256.86	5,256.86	5,256.86	16.56	207.97	-164.42	28.98	234.14	765.82	547.11	218.71	3.502		
5,400.00	5,355.86	5,355.86	5,355.86	16.91	211.93	-164.70	28.98	234.14	779.40	556.53	222.87	3.497		
5,451.26	5,406.61	5,406.61	5,406.61	17.09	213.96	-164.84	28.98	234.14	786.37	561.37	225.00	3.495		
5,500.00	5,454.92	5,454.92	5,454.92	17.23	215.90	-164.99	28.98	234.14	792.60	565.18	227.43	3.485		
5,600.00	5,554.35	5,554.35	5,554.35	17.45	219.87	-165.24	28.98	234.14	802.91	570.60	232.31	3.456		
5,700.00	5,654.08	5,654.08	5,654.08	17.64	223.86	-165.41	28.98	234.14	809.86	572.89	236.97	3.418		
5,800.00	5,754.01	5,754.01	5,754.01	17.80	227.86	-165.49	28.98	234.14	813.44	572.07	241.37	3.370		
5,855.99	5,810.00	5,810.00	5,810.00	17.88	230.10	37.72	28.98	234.14	813.97	570.24	243.73	3.340		
5,900.00	5,854.01	5,854.01	5,854.01	17.94	231.86	37.72	28.98	234.14	813.97	568.40	245.57	3.315		
6,000.00	5,954.01	5,954.01	5,954.01	18.07	235.86	37.72	28.98	234.14	813.97	564.23	249.74	3.259		
6,100.00	6,054.01	6,054.01	6,054.01	18.20	239.86	37.72	28.98	234.14	813.97	560.06	253.91	3.206		
6,200.00	6,154.01	6,154.01	6,154.01	18.33	243.86	37.72	28.98	234.14	813.97	555.89	258.08	3.154		
6,300.00	6,254.01	6,254.01	6,254.01	18.46	247.86	37.72	28.98	234.14	813.97	551.72	262.25	3.104		
6,400.00	6,354.01	6,354.01	6,354.01	18.59	251.86	37.72	28.98	234.14	813.97	547.55	266.43	3.055		
6,500.00	6,454.01	6,454.01	6,454.01	18.73	255.86	37.72	28.98	234.14	813.97	543.37	270.60	3.008		
6,600.00	6,554.01	6,554.01	6,554.01	18.86	259.86	37.72	28.98	234.14	813.97	539.20	274.78	2.962		
6,700.00	6,654.01	6,654.01	6,654.01	19.00	263.86	37.72	28.98	234.14	813.97	535.02	278.95	2.918		
6,800.00	6,754.01	6,754.01	6,754.01	19.14	267.86	37.72	28.98	234.14	813.97	530.84	283.13	2.875		
6,900.00	6,854.01	6,854.01	6,854.01	19.28	271.86	37.72	28.98	234.14	813.97	526.66	287.31	2.833		
7,000.00	6,954.01	6,954.01	6,954.01	19.43	275.86	37.72	28.98	234.14	813.97	522.48	291.49	2.792		
7,100.00	7,054.01	7,054.01	7,054.01	19.57	279.86	37.72	28.98	234.14	813.97	518.30	295.68	2.753		
7,200.00	7,154.01	7,154.01	7,154.01	19.72	283.86	37.72	28.98	234.14	813.97	514.11	299.86	2.715		
7,300.00	7,254.01	7,254.01	7,254.01	19.87	287.86	37.72	28.98	234.14	813.97	509.93	304.04	2.677		
7,400.00	7,354.01	7,354.01	7,354.01	20.02	291.86	37.72	28.98	234.14	813.97	505.74	308.23	2.641		
7,500.00	7,454.01	7,454.01	7,454.01	20.17	295.86	37.72	28.98	234.14	813.97	501.56	312.42	2.605 SF		
7,600.00	7,554.01	7,459.00	7,459.00	20.32	296.06	37.72	28.98	234.14	819.50	506.69	312.80	2.620		
7,692.99	7,647.00	7,459.00	7,459.00	20.46	296.06	37.72	28.98	234.14	835.40	522.42	312.98	2.669		

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

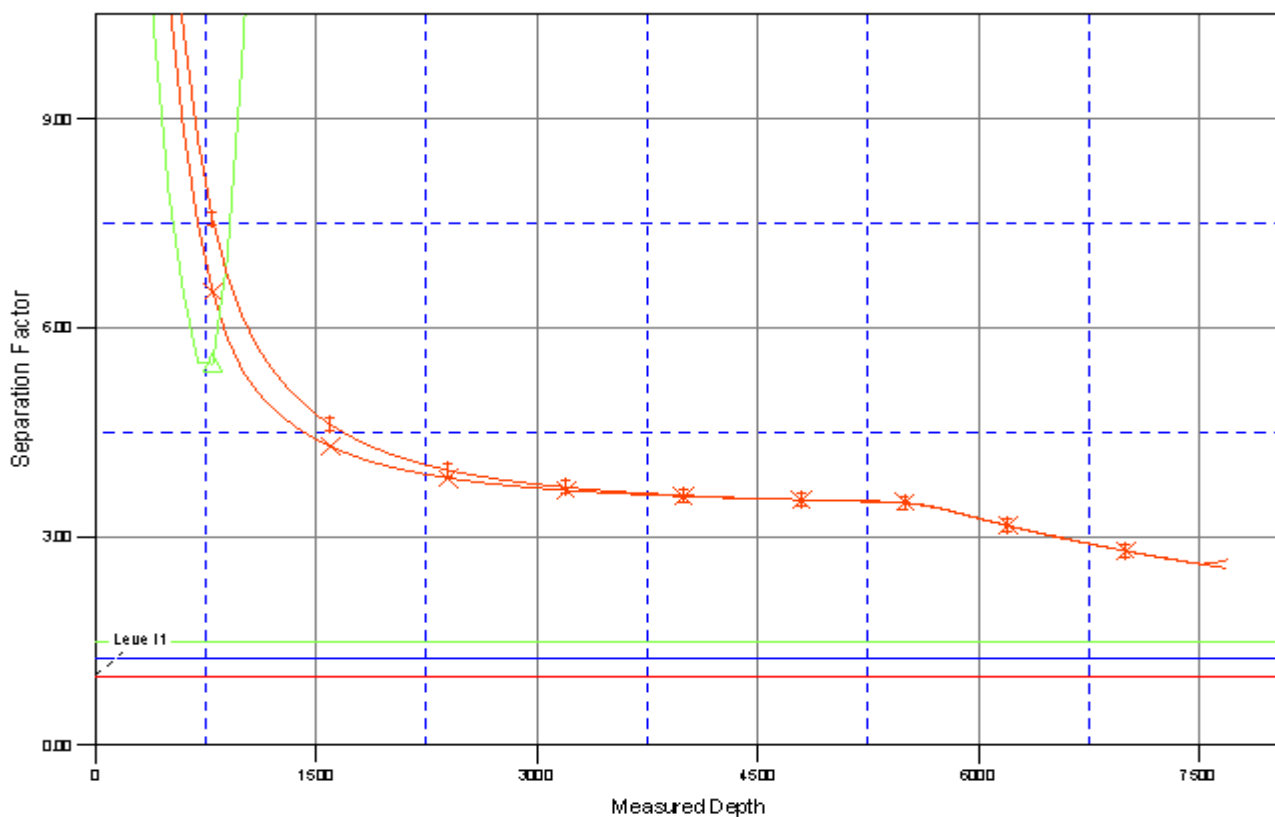
Reference Depths are relative to WELL @ 4706.00ft (Original Well Elev) Coordinates are relative to: P_WORRIES 32-14
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.56°



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WORRIES 32-14
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 4706.00ft (Original Well Elev)
Reference Site:	WELD_WORRIES 5-14 PAD	MD Reference:	WELL @ 4706.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WORRIES 32-14	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WORRIES 32-14	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-29-10 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4706.00ft (Original Well Elev) Coordinates are relative to: P_WORRIES 32-14
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: 0.56°

Separation Factor Plot



LEGEND

gn #1_ASSUMED VERTICAL MD P_WORRIES 41-15, P_WORRIES 41-15, PLAN #1 10-08-09 RHS MD

WORRIES 22-14 EXISTING