



Ursa Operating Company, LLC

**Rockies Region
Valley Farms L
41B-14-06-92**

Wellbore #1

Plan: Design #1

Standard Planning Report

25 November, 2013



Database:	MasterDB	Local Co-ordinate Reference:	Well 41B-14-06-92
Company:	Ursa Operating Company, LLC	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Project:	Rockies Region	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site:	Valley Farms L	North Reference:	True
Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Rockies Region		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Valley Farms L				
Site Position:		Northing:	1,627,813.25 usft	Latitude:	39° 32' 16.142 N
From:	Lat/Long	Easting:	2,399,633.87 usft	Longitude:	107° 37' 44.058 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.34 °

Well	41B-14-06-92, SHL LAT: 39.537615922 LONG: -107.629368992					
Well Position	+N/-S	-73.3 usft	Northing:	1,627,743.03 usft	Latitude:	39° 32' 15.417 N
	+E/-W	-130.8 usft	Easting:	2,399,501.36 usft	Longitude:	107° 37' 45.728 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,564.4 usft	Ground Level:	5,549.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/25/2013	9.84	65.79	52,117

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	162.17

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,166.2	37.32	162.17	2,092.4	-319.0	102.6	3.50	3.50	0.00	162.17	
3,963.3	37.32	162.17	3,521.6	-1,356.1	436.1	0.00	0.00	0.00	0.00	
5,029.4	0.00	0.00	4,514.0	-1,675.1	538.7	3.50	-3.50	0.00	180.00	41B-14-06-92 TGT
7,813.4	0.00	0.00	7,298.0	-1,675.1	538.7	0.00	0.00	0.00	0.00	

Database:	MasterDB	Local Co-ordinate Reference:	Well 41B-14-06-92
Company:	Ursa Operating Company, LLC	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Project:	Rockies Region	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site:	Valley Farms L	North Reference:	True
Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 3.50									
1,200.0	3.50	162.17	1,199.9	-2.9	0.9	3.1	3.50	3.50	0.00
1,300.0	7.00	162.17	1,299.5	-11.6	3.7	12.2	3.50	3.50	0.00
1,400.0	10.50	162.17	1,398.3	-26.1	8.4	27.4	3.50	3.50	0.00
1,500.0	14.00	162.17	1,496.0	-46.3	14.9	48.6	3.50	3.50	0.00
1,600.0	17.50	162.17	1,592.3	-72.1	23.2	75.8	3.50	3.50	0.00
1,700.0	21.00	162.17	1,686.7	-103.5	33.3	108.7	3.50	3.50	0.00
1,800.0	24.50	162.17	1,778.9	-140.3	45.1	147.4	3.50	3.50	0.00
1,900.0	28.00	162.17	1,868.5	-182.4	58.7	191.6	3.50	3.50	0.00
2,000.0	31.50	162.17	1,955.3	-229.6	73.8	241.2	3.50	3.50	0.00
2,100.0	35.00	162.17	2,039.0	-281.8	90.6	296.1	3.50	3.50	0.00
2,166.2	37.32	162.17	2,092.4	-319.0	102.6	335.1	3.50	3.50	0.00
Start 1797.1 hold at 2166.2 MD									
2,200.0	37.32	162.17	2,119.3	-338.5	108.9	355.6	0.00	0.00	0.00
2,300.0	37.32	162.17	2,198.8	-396.2	127.4	416.2	0.00	0.00	0.00
2,400.0	37.32	162.17	2,278.3	-453.9	146.0	476.8	0.00	0.00	0.00
2,500.0	37.32	162.17	2,357.9	-511.7	164.5	537.5	0.00	0.00	0.00
2,600.0	37.32	162.17	2,437.4	-569.4	183.1	598.1	0.00	0.00	0.00
2,700.0	37.32	162.17	2,516.9	-627.1	201.7	658.7	0.00	0.00	0.00
2,800.0	37.32	162.17	2,596.5	-684.8	220.2	719.3	0.00	0.00	0.00
2,900.0	37.32	162.17	2,676.0	-742.5	238.8	779.9	0.00	0.00	0.00
3,000.0	37.32	162.17	2,755.5	-800.2	257.3	840.6	0.00	0.00	0.00
3,100.0	37.32	162.17	2,835.1	-857.9	275.9	901.2	0.00	0.00	0.00
3,200.0	37.32	162.17	2,914.6	-915.6	294.4	961.8	0.00	0.00	0.00
3,300.0	37.32	162.17	2,994.1	-973.3	313.0	1,022.4	0.00	0.00	0.00
3,400.0	37.32	162.17	3,073.7	-1,031.1	331.6	1,083.1	0.00	0.00	0.00
3,500.0	37.32	162.17	3,153.2	-1,088.8	350.1	1,143.7	0.00	0.00	0.00
3,600.0	37.32	162.17	3,232.7	-1,146.5	368.7	1,204.3	0.00	0.00	0.00
3,700.0	37.32	162.17	3,312.2	-1,204.2	387.2	1,264.9	0.00	0.00	0.00
3,789.0	37.32	162.17	3,383.0	-1,255.5	403.7	1,318.8	0.00	0.00	0.00
Williams Fork									
3,800.0	37.32	162.17	3,391.8	-1,261.9	405.8	1,325.5	0.00	0.00	0.00
3,900.0	37.32	162.17	3,471.3	-1,319.6	424.4	1,386.2	0.00	0.00	0.00
3,963.3	37.32	162.17	3,521.6	-1,356.1	436.1	1,424.5	0.00	0.00	0.00
Start Drop -3.50									
4,000.0	36.03	162.17	3,551.1	-1,377.0	442.8	1,446.4	3.50	-3.50	0.00
4,100.0	32.53	162.17	3,633.7	-1,430.6	460.1	1,502.8	3.50	-3.50	0.00
4,200.0	29.03	162.17	3,719.6	-1,479.3	475.7	1,553.9	3.50	-3.50	0.00
4,300.0	25.53	162.17	3,808.5	-1,522.9	489.7	1,599.8	3.50	-3.50	0.00
4,400.0	22.03	162.17	3,900.0	-1,561.3	502.1	1,640.1	3.50	-3.50	0.00
4,500.0	18.53	162.17	3,993.7	-1,594.3	512.7	1,674.7	3.50	-3.50	0.00
4,600.0	15.03	162.17	4,089.5	-1,621.8	521.5	1,703.6	3.50	-3.50	0.00

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Project:	Rockies Region	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site:	Valley Farms L	North Reference:	True
Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	11.53	162.17	4,186.8	-1,643.7	528.6	1,726.6	3.50	-3.50	0.00
4,800.0	8.03	162.17	4,285.3	-1,659.8	533.8	1,743.5	3.50	-3.50	0.00
4,900.0	4.53	162.17	4,384.7	-1,670.2	537.1	1,754.5	3.50	-3.50	0.00
5,000.0	1.03	162.17	4,484.6	-1,674.9	538.6	1,759.3	3.50	-3.50	0.00
5,029.4	0.00	0.00	4,514.0	-1,675.1	538.7	1,759.6	3.50	-3.50	0.00
Start 2784.0 hold at 5029.4 MD - Top of Gas - 41B-14-06-92 TGT									
5,100.0	0.00	0.00	4,584.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,200.0	0.00	0.00	4,684.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,300.0	0.00	0.00	4,784.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,400.0	0.00	0.00	4,884.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,500.0	0.00	0.00	4,984.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,084.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,700.0	0.00	0.00	5,184.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,800.0	0.00	0.00	5,284.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
5,900.0	0.00	0.00	5,384.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,484.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,100.0	0.00	0.00	5,584.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,200.0	0.00	0.00	5,684.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,300.0	0.00	0.00	5,784.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,400.0	0.00	0.00	5,884.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,500.0	0.00	0.00	5,984.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,518.4	0.00	0.00	6,003.0	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
Cameo									
6,600.0	0.00	0.00	6,084.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,184.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,284.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
6,900.0	0.00	0.00	6,384.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,484.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,100.0	0.00	0.00	6,584.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,200.0	0.00	0.00	6,684.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,300.0	0.00	0.00	6,784.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,400.0	0.00	0.00	6,884.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,500.0	0.00	0.00	6,984.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,513.4	0.00	0.00	6,998.0	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
Rollins									
7,600.0	0.00	0.00	7,084.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,184.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,284.6	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
7,813.4	0.00	0.00	7,298.0	-1,675.1	538.7	1,759.6	0.00	0.00	0.00
TD at 7813.4									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
41B-14-06-92 TGT	0.00	0.00	4,514.0	-1,675.1	538.7	1,626,055.75	2,400,000.63	39° 31' 58.861 N	107° 37' 38.853 W
- plan hits target center									
- Rectangle (sides W100.0 H40.0 D2,784.0)									

Database:	MasterDB	Local Co-ordinate Reference:	Well 41B-14-06-92
Company:	Ursa Operating Company, LLC	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Project:	Rockies Region	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site:	Valley Farms L	North Reference:	True
Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,789.0	3,383.0	Williams Fork		0.00	
5,029.4	4,514.0	Top of Gas		0.00	
6,518.4	6,003.0	Cameo		0.00	
7,513.4	6,998.0	Rollins		0.00	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,100.0	1,100.0	0.0	0.0	Start Build 3.50
2,166.2	2,092.4	-319.0	102.6	Start 1797.1 hold at 2166.2 MD
3,963.3	3,521.6	-1,356.1	436.1	Start Drop -3.50
5,029.4	4,514.0	-1,675.1	538.7	Start 2784.0 hold at 5029.4 MD
7,813.4	7,298.0	-1,675.1	538.7	TD at 7813.4



Well Name: 41B-14-06-92
Surface Location: Valley Farms L
North American Datum 1983, US State Plane 1983, Colorado Central Zone
Ground Elevation: 5549.0
+N/-S +E/-W Northing Easting Latitude Longitude
0.0 0.0 1627743.04 2399501.36 39° 32' 15.417 N 107° 37' 45.728 W
PAD Est KB 41B-14-06-92 @ 5564.4usft (PAD Est KB)



Azimuths to True North
Magnetic North: 9.84°
Magnetic Field
Strength: 52116.6snT
Dip Angle: 65.79°
Date: 11/25/2013
Model: IGRF200510

Valley Farms L
41B-14-06-92
Design #1
20:27, November 25 2013

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
41B-14-06-92 TGT	4514.0	-1675.1	538.7	1626055.76	2400000.63	39° 31' 58.861 N	107° 37' 38.853 W	Rectangle (Sides: L40.0 W100.0)

SECTION DETAILS

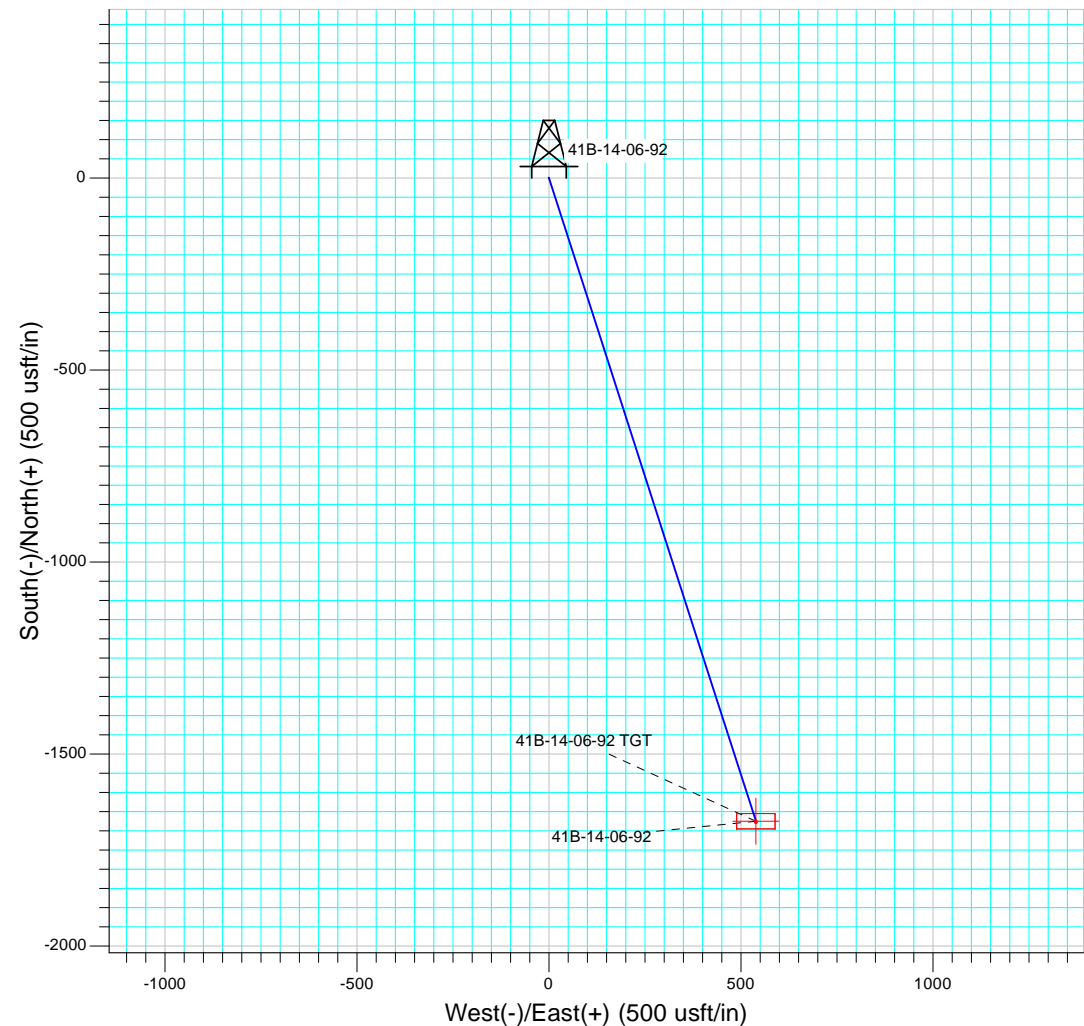
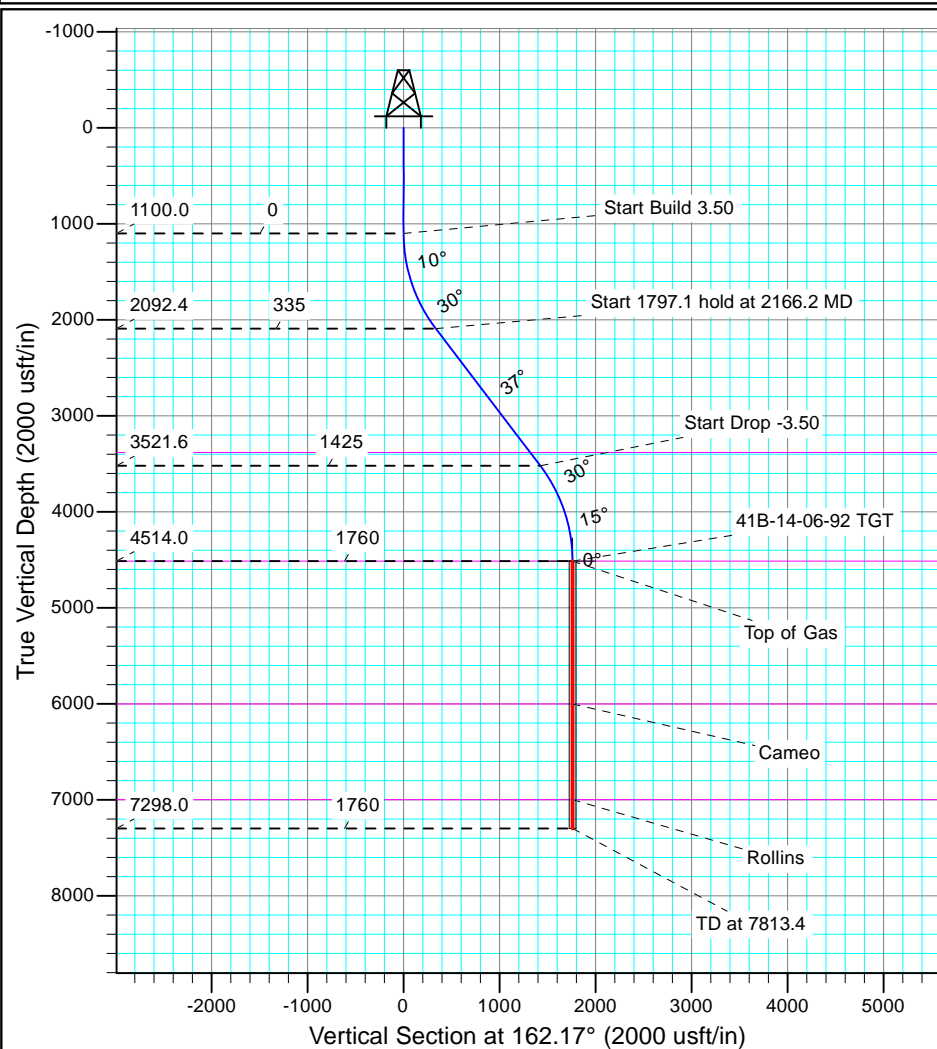
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	2166.2	37.32	162.17	2092.4	-319.0	102.6	3.50	162.17	335.1	
4	3963.3	37.32	162.17	3521.6	-1356.1	436.1	0.00	0.00	1424.5	
5	5029.4	0.00	0.00	4514.0	-1675.1	538.7	3.50	180.00	1759.6	41B-14-06-92 TGT
6	7813.4	0.00	0.00	7298.0	-1675.1	538.7	0.00	0.00	1759.6	

ANNOTATIONS

TVD	MD	Annotation
1100.0	1100.0	Start Build 3.50
2092.4	2166.2	Start 1797.1 hold at 2166.2 MD
3521.6	3963.3	Start Drop -3.50
4514.0	5029.4	Start 2784.0 hold at 5029.4 MD
7298.0	7813.4	TD at 7813.4

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
3383.0	3789.0	Williams Fork	0.00	
4514.0	5029.4	Top of Gas	0.00	
6003.0	6518.4	Cameo	0.00	
6998.0	7513.4	Rollins	0.00	





Ursa Operating Company, LLC

Rockies Region

Valley Farms L

41B-14-06-92

Wellbore #1

Design #1

Anticollision Report

26 November, 2013



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/26/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	7,813.4	Design #1 (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Valley Farms L						
41A-14-06-92 - Wellbore #1 - Design #1	1,100.0	1,100.0	12.5	7.8	2.667	CC
41A-14-06-92 - Wellbore #1 - Design #1	1,200.0	1,200.1	12.7	7.7	2.509	ES
41A-14-06-92 - Wellbore #1 - Design #1	1,300.0	1,300.2	13.5	8.1	2.491	SF
42B-11-06-92 - Wellbore #1 - Design #1	500.0	500.0	150.0	148.0	75.421	CC, ES
42B-11-06-92 - Wellbore #1 - Design #1	1,000.0	957.5	205.5	201.1	47.144	SF
42C-11-06-92 - Wellbore #1 - Design #1	300.0	300.0	137.5	136.4	126.199	CC, ES
42C-11-06-92 - Wellbore #1 - Design #1	900.0	847.6	217.3	213.1	52.630	SF
42D-11-06-92 - Wellbore #1 - Design #1	533.5	533.5	125.0	122.8	58.431	CC, ES
42D-11-06-92 - Wellbore #1 - Design #1	1,000.0	973.6	163.4	159.1	38.043	SF
43A-11-06-92 - Wellbore #1 - Design #1	600.0	600.0	112.5	110.0	46.136	CC, ES
43A-11-06-92 - Wellbore #1 - Design #1	1,000.0	978.4	144.2	140.0	33.860	SF
43B-11-06-92 - Wellbore #1 - Design #1	700.0	700.0	100.0	97.1	34.624	CC, ES
43B-11-06-92 - Wellbore #1 - Design #1	1,000.0	985.7	118.9	114.6	28.147	SF
43C-11-06-92 - Wellbore #1 - Design #1	900.0	900.0	87.5	83.7	23.102	CC, ES
43C-11-06-92 - Wellbore #1 - Design #1	1,100.0	1,091.4	96.7	92.0	20.733	SF
43D-11-06-92 - Wellbore #1 - Design #1	1,100.0	1,100.0	75.0	70.3	16.003	CC, ES
43D-11-06-92 - Wellbore #1 - Design #1	1,200.0	1,196.0	78.2	73.1	15.347	SF
44A-11-06-92 - Wellbore #1 - Design #1	1,100.0	1,100.0	62.5	57.8	13.335	CC, ES
44A-11-06-92 - Wellbore #1 - Design #1	1,200.0	1,197.3	65.2	60.1	12.809	SF
44B-11-06-92 - Wellbore #1 - Design #1	1,100.0	1,100.0	50.0	45.3	10.668	CC, ES
44B-11-06-92 - Wellbore #1 - Design #1	1,200.0	1,199.0	51.6	46.5	10.149	SF
44C-11-06-92 - Wellbore #1 - Design #1	1,100.0	1,100.0	37.5	32.8	8.001	CC, ES
44C-11-06-92 - Wellbore #1 - Design #1	1,300.0	1,299.6	41.0	35.6	7.531	SF
44D-11-06-92 - Wellbore #1 - Design #1	1,100.0	1,100.0	25.0	20.3	5.334	CC, ES
44D-11-06-92 - Wellbore #1 - Design #1	1,300.0	1,300.2	26.9	21.5	4.950	SF

Offset Design		Valley Farms L - 41A-14-06-92 - Wellbore #1 - Design #1										Offset Site Error:		0.0 usft	
Survey Program:		0-MWD										Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	6.1	10.9	12.5						
100.0	100.0	100.0	100.0	0.1	0.1	60.74	6.1	10.9	12.5	12.3	0.19	65.719			
200.0	200.0	200.0	200.0	0.3	0.3	60.74	6.1	10.9	12.5	11.9	0.64	19.536			

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 41A-14-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	6.1	10.9	12.5	11.4	1.09	11.473		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	6.1	10.9	12.5	11.0	1.54	8.121		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	6.1	10.9	12.5	10.5	1.99	6.285		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	6.1	10.9	12.5	10.1	2.44	5.126		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	6.1	10.9	12.5	9.6	2.89	4.328		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	6.1	10.9	12.5	9.2	3.34	3.745		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	6.1	10.9	12.5	8.7	3.79	3.300		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	60.74	6.1	10.9	12.5	8.3	4.24	2.950		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	60.74	6.1	10.9	12.5	7.8	4.69	2.667 CC		
1,200.0	1,199.9	1,200.1	1,200.1	2.5	2.5	-103.22	3.7	11.9	12.7	7.7	5.08	2.509 ES		
1,300.0	1,299.5	1,300.2	1,299.9	2.7	2.7	-108.17	-3.7	14.7	13.5	8.1	5.44	2.491 SF		
1,400.0	1,398.3	1,400.4	1,399.2	2.9	2.9	-115.13	-15.9	19.4	15.1	9.2	5.84	2.581		
1,500.0	1,496.0	1,500.8	1,497.8	3.2	3.2	-122.65	-32.9	26.1	17.5	11.2	6.31	2.777		
1,600.0	1,592.3	1,601.2	1,595.5	3.6	3.5	-129.57	-54.8	34.6	20.9	14.1	6.82	3.072		
1,700.0	1,686.7	1,701.9	1,691.9	4.0	3.9	-135.37	-81.6	45.0	25.4	18.0	7.38	3.443		
1,800.0	1,778.9	1,802.7	1,787.0	4.6	4.4	-139.97	-113.0	57.2	30.9	22.9	8.00	3.865		
1,900.0	1,868.5	1,903.9	1,880.3	5.3	5.0	-143.55	-149.3	71.3	37.4	28.7	8.67	4.311		
2,000.0	1,955.3	2,005.3	1,971.8	6.1	5.7	-146.32	-190.2	87.2	44.8	35.4	9.40	4.763		
2,100.0	2,039.0	2,107.0	2,061.0	7.1	6.6	-148.46	-235.7	104.8	53.1	42.9	10.21	5.200		
2,166.2	2,092.4	2,174.4	2,118.7	7.8	7.2	-149.62	-268.2	117.5	59.1	48.3	10.78	5.478		
2,200.0	2,119.3	2,208.1	2,147.2	8.1	7.5	-150.22	-284.9	124.0	62.3	51.2	11.12	5.601		
2,300.0	2,198.8	2,307.6	2,231.5	9.3	8.5	-151.68	-334.2	143.1	71.9	59.7	12.15	5.918		
2,400.0	2,278.3	2,407.2	2,315.8	10.4	9.5	-152.79	-383.5	162.3	81.5	68.3	13.20	6.176		
2,500.0	2,357.9	2,506.7	2,400.2	11.6	10.5	-153.67	-432.7	181.4	91.1	76.9	14.26	6.389		
2,600.0	2,437.4	2,606.2	2,484.5	12.8	11.5	-154.38	-482.0	200.6	100.8	85.4	15.34	6.568		
2,700.0	2,516.9	2,705.7	2,568.8	13.9	12.5	-154.97	-531.3	219.7	110.4	94.0	16.44	6.719		
2,800.0	2,596.5	2,805.3	2,653.1	15.1	13.5	-155.46	-580.5	238.8	120.1	102.6	17.54	6.848		
2,900.0	2,676.0	2,904.8	2,737.5	16.3	14.6	-155.88	-629.8	258.0	129.8	111.1	18.65	6.959		
3,000.0	2,755.5	3,004.3	2,821.8	17.5	15.6	-156.24	-679.1	277.1	139.5	119.7	19.77	7.056		
3,100.0	2,835.1	3,103.8	2,906.1	18.7	16.7	-156.56	-728.4	296.3	149.2	128.3	20.89	7.141		
3,200.0	2,914.6	3,203.4	2,990.5	19.9	17.7	-156.83	-777.6	315.4	158.9	136.9	22.02	7.217		
3,300.0	2,994.1	3,302.9	3,074.8	21.1	18.8	-157.08	-826.9	334.6	168.6	145.4	23.15	7.283		
3,400.0	3,073.7	3,402.4	3,159.1	22.3	19.8	-157.29	-876.2	353.7	178.3	154.0	24.28	7.343		
3,500.0	3,153.2	3,501.9	3,243.4	23.5	20.9	-157.49	-925.4	372.8	188.0	162.6	25.41	7.397		
3,600.0	3,232.7	3,601.5	3,327.8	24.8	22.0	-157.66	-974.7	392.0	197.7	171.1	26.55	7.445		
3,700.0	3,312.2	3,701.0	3,412.1	26.0	23.0	-157.82	-1,024.0	411.1	207.4	179.7	27.69	7.489		
3,800.0	3,391.8	3,800.5	3,496.4	27.2	24.1	-157.97	-1,073.3	430.3	217.1	188.3	28.84	7.529		
3,900.0	3,471.3	3,890.3	3,573.6	28.4	24.9	-158.31	-1,116.0	446.9	228.9	199.2	29.77	7.689		
3,963.3	3,521.6	3,946.5	3,623.0	29.2	25.3	-158.72	-1,141.1	456.6	238.6	208.4	30.23	7.893		
4,000.0	3,551.1	3,979.0	3,651.8	29.6	25.6	-159.06	-1,154.9	462.0	244.6	214.1	30.49	8.024		
4,100.0	3,633.7	4,067.1	3,731.4	30.4	26.2	-159.87	-1,190.1	475.7	260.0	228.9	31.12	8.356		
4,200.0	3,719.6	4,154.7	3,812.2	31.2	26.7	-160.53	-1,221.8	488.0	274.0	242.3	31.70	8.644		
4,300.0	3,808.5	4,242.1	3,894.2	32.0	27.2	-161.06	-1,249.8	498.9	286.4	254.2	32.19	8.897		
4,400.0	3,900.0	4,329.1	3,977.2	32.6	27.6	-161.50	-1,274.3	508.4	297.3	264.7	32.60	9.121		
4,500.0	3,993.7	4,415.9	4,061.0	33.2	28.0	-161.85	-1,295.1	516.5	306.7	273.8	32.90	9.323		
4,600.0	4,089.5	4,500.0	4,143.2	33.7	28.3	-162.12	-1,311.9	523.0	314.5	281.4	33.09	9.506		
4,700.0	4,186.8	4,588.8	4,230.7	34.1	28.6	-162.34	-1,325.9	528.5	320.7	287.6	33.17	9.670		
4,800.0	4,285.3	4,675.1	4,316.3	34.4	28.8	-162.49	-1,335.9	532.3	325.4	292.2	33.13	9.821		
4,900.0	4,384.7	4,761.3	4,402.2	34.6	29.0	-162.59	-1,342.3	534.8	328.4	295.4	32.98	9.958		
5,000.0	4,484.6	4,847.4	4,488.2	34.7	29.1	-162.64	-1,345.1	535.9	329.8	297.1	32.72	10.079		
5,029.4	4,514.0	4,873.1	4,514.0	34.7	29.1	-0.47	-1,345.2	536.0	329.9	297.3	32.63	10.112		
5,100.0	4,584.6	4,943.7	4,584.6	34.8	29.1	-0.47	-1,345.2	536.0	329.9	297.1	32.79	10.063		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 41A-14-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.0	4,684.6	5,043.7	4,684.6	34.8	29.2	-0.47	-1,345.2	536.0	329.9	296.9	33.02	9.993		
5,300.0	4,784.6	5,143.7	4,784.6	34.9	29.3	-0.47	-1,345.2	536.0	329.9	296.7	33.25	9.922		
5,400.0	4,884.6	5,243.7	4,884.6	34.9	29.3	-0.47	-1,345.2	536.0	329.9	296.4	33.49	9.852		
5,500.0	4,984.6	5,343.7	4,984.6	35.0	29.4	-0.47	-1,345.2	536.0	329.9	296.2	33.73	9.781		
5,600.0	5,084.6	5,443.7	5,084.6	35.0	29.5	-0.47	-1,345.2	536.0	329.9	295.9	33.98	9.710		
5,700.0	5,184.6	5,543.7	5,184.6	35.1	29.5	-0.47	-1,345.2	536.0	329.9	295.7	34.23	9.639		
5,800.0	5,284.6	5,643.7	5,284.6	35.2	29.6	-0.47	-1,345.2	536.0	329.9	295.4	34.48	9.567		
5,900.0	5,384.6	5,743.7	5,384.6	35.2	29.7	-0.47	-1,345.2	536.0	329.9	295.2	34.74	9.496		
6,000.0	5,484.6	5,843.7	5,484.6	35.3	29.8	-0.47	-1,345.2	536.0	329.9	294.9	35.00	9.425		
6,100.0	5,584.6	5,943.7	5,584.6	35.4	29.9	-0.47	-1,345.2	536.0	329.9	294.6	35.27	9.354		
6,200.0	5,684.6	6,043.7	5,684.6	35.4	29.9	-0.47	-1,345.2	536.0	329.9	294.4	35.54	9.282		
6,300.0	5,784.6	6,143.7	5,784.6	35.5	30.0	-0.47	-1,345.2	536.0	329.9	294.1	35.82	9.211		
6,400.0	5,884.6	6,243.7	5,884.6	35.6	30.1	-0.47	-1,345.2	536.0	329.9	293.8	36.09	9.141		
6,500.0	5,984.6	6,343.7	5,984.6	35.6	30.2	-0.47	-1,345.2	536.0	329.9	293.5	36.37	9.070		
6,600.0	6,084.6	6,443.7	6,084.6	35.7	30.3	-0.47	-1,345.2	536.0	329.9	293.3	36.66	9.000		
6,700.0	6,184.6	6,543.7	6,184.6	35.8	30.4	-0.47	-1,345.2	536.0	329.9	293.0	36.95	8.930		
6,800.0	6,284.6	6,643.7	6,284.6	35.9	30.5	-0.47	-1,345.2	536.0	329.9	292.7	37.24	8.860		
6,900.0	6,384.6	6,743.7	6,384.6	35.9	30.5	-0.47	-1,345.2	536.0	329.9	292.4	37.53	8.791		
7,000.0	6,484.6	6,843.7	6,484.6	36.0	30.6	-0.47	-1,345.2	536.0	329.9	292.1	37.83	8.722		
7,100.0	6,584.6	6,943.7	6,584.6	36.1	30.7	-0.47	-1,345.2	536.0	329.9	291.8	38.13	8.653		
7,200.0	6,684.6	7,043.7	6,684.6	36.2	30.8	-0.47	-1,345.2	536.0	329.9	291.5	38.43	8.585		
7,300.0	6,784.6	7,143.7	6,784.6	36.2	30.9	-0.47	-1,345.2	536.0	329.9	291.2	38.74	8.517		
7,400.0	6,884.6	7,243.7	6,884.6	36.3	31.0	-0.47	-1,345.2	536.0	329.9	290.9	39.04	8.450		
7,500.0	6,984.6	7,343.7	6,984.6	36.4	31.1	-0.47	-1,345.2	536.0	329.9	290.6	39.35	8.383		
7,600.0	7,084.6	7,443.7	7,084.6	36.5	31.2	-0.47	-1,345.2	536.0	329.9	290.2	39.67	8.317		
7,700.0	7,184.6	7,543.7	7,184.6	36.6	31.3	-0.47	-1,345.2	536.0	329.9	289.9	39.98	8.251		
7,800.0	7,284.6	7,643.7	7,284.6	36.7	31.4	-0.47	-1,345.2	536.0	329.9	289.6	40.30	8.186		
7,802.7	7,287.2	7,646.4	7,287.2	36.7	31.4	-0.47	-1,345.2	536.0	329.9	289.6	40.31	8.184		
7,813.4	7,298.0	7,654.1	7,295.0	36.7	31.4	-0.47	-1,345.2	536.0	329.9	289.6	40.34	8.178		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 42B-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	73.3	130.8	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	73.3	130.8	150.0	149.8	0.19	788.622		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	73.3	130.8	150.0	149.3	0.64	234.426		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	73.3	130.8	150.0	148.9	1.09	137.675		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	73.3	130.8	150.0	148.4	1.54	97.455		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	73.3	130.8	150.0	148.0	1.99	75.421 CC, ES		
600.0	600.0	593.9	593.8	1.2	1.2	60.02	75.9	131.5	152.0	149.6	2.42	62.711		
700.0	700.0	687.1	686.7	1.4	1.4	57.97	83.6	133.6	158.2	155.3	2.87	55.164		
800.0	800.0	779.2	777.8	1.7	1.7	54.94	96.2	137.1	168.9	165.6	3.33	50.665		
900.0	900.0	869.5	866.3	1.9	2.0	51.35	113.4	141.7	184.6	180.7	3.83	48.174		
1,000.0	1,000.0	957.5	951.6	2.1	2.3	47.62	134.6	147.5	205.5	201.1	4.36	47.144 SF		
1,100.0	1,100.0	1,043.0	1,033.1	2.3	2.7	44.06	159.4	154.3	231.7	226.8	4.91	47.214		
1,200.0	1,199.9	1,124.6	1,109.5	2.5	3.2	-120.75	186.9	161.7	264.7	259.4	5.28	50.079		
1,300.0	1,299.5	1,200.0	1,178.9	2.7	3.7	-123.33	215.5	169.5	306.0	300.3	5.72	53.467		
1,400.0	1,398.3	1,270.7	1,242.5	2.9	4.2	-125.56	245.1	177.6	355.6	349.5	6.17	57.643		
1,500.0	1,496.0	1,334.0	1,298.4	3.2	4.7	-127.15	273.9	185.4	413.1	406.5	6.61	62.464		
1,600.0	1,592.3	1,394.0	1,350.2	3.6	5.2	-128.24	303.0	193.4	477.8	470.7	7.10	67.259		
1,700.0	1,686.7	1,455.9	1,403.2	4.0	5.8	-129.09	334.1	201.8	548.0	540.3	7.66	71.508		
1,800.0	1,778.9	1,517.9	1,456.1	4.6	6.4	-129.59	365.1	210.3	622.0	613.8	8.27	75.236		
1,900.0	1,868.5	1,575.3	1,505.1	5.3	6.9	-129.52	393.9	218.1	699.7	690.7	8.99	77.862		
2,000.0	1,955.3	1,627.9	1,550.1	6.1	7.4	-128.84	420.2	225.3	780.7	770.9	9.85	79.291		
2,100.0	2,039.0	1,675.5	1,590.7	7.1	7.9	-127.50	444.1	231.8	864.7	853.8	10.89	79.388		
2,166.2	2,092.4	1,704.1	1,615.2	7.8	8.2	-126.20	458.4	235.7	921.8	910.1	11.71	78.718		
2,200.0	2,119.3	1,718.2	1,627.3	8.1	8.3	-127.13	465.5	237.6	951.4	939.4	11.96	79.564		
2,300.0	2,198.8	1,759.8	1,662.8	9.3	8.7	-129.63	486.3	243.3	1,039.1	1,026.4	12.68	81.959		
2,400.0	2,278.3	1,801.3	1,698.3	10.4	9.1	-131.82	507.2	248.9	1,127.3	1,113.9	13.38	84.222		
2,500.0	2,357.9	1,842.9	1,733.8	11.6	9.5	-133.76	528.0	254.6	1,215.9	1,201.8	14.08	86.333		
2,600.0	2,437.4	1,884.5	1,769.4	12.8	9.9	-135.48	548.8	260.3	1,304.8	1,290.1	14.77	88.337		
2,700.0	2,516.9	1,926.1	1,804.9	13.9	10.3	-137.02	569.7	266.0	1,394.0	1,378.6	15.45	90.222		
2,800.0	2,596.5	1,967.6	1,840.4	15.1	10.7	-138.39	590.5	271.6	1,483.4	1,467.3	16.12	91.998		
2,900.0	2,676.0	2,009.2	1,876.0	16.3	11.1	-139.63	611.3	277.3	1,573.0	1,556.2	16.79	93.678		
3,000.0	2,755.5	2,050.8	1,911.5	17.5	11.5	-140.75	632.2	283.0	1,662.8	1,645.3	17.46	95.252		
3,100.0	2,835.1	2,092.4	1,947.0	18.7	11.9	-141.77	653.0	288.6	1,752.6	1,734.5	18.12	96.743		
3,200.0	2,914.6	2,133.9	1,982.5	19.9	12.3	-142.69	673.8	294.3	1,842.6	1,823.8	18.78	98.140		
3,300.0	2,994.1	2,175.5	2,018.1	21.1	12.7	-143.54	694.7	300.0	1,932.6	1,913.2	19.43	99.460		
3,400.0	3,073.7	2,217.1	2,053.6	22.3	13.1	-144.32	715.5	305.7	2,022.8	2,002.7	20.09	100.703		
3,500.0	3,153.2	2,258.7	2,089.1	23.5	13.5	-145.04	736.3	311.3	2,113.0	2,092.2	20.74	101.872		
3,600.0	3,232.7	2,300.2	2,124.7	24.8	13.9	-145.70	757.2	317.0	2,203.2	2,181.9	21.39	102.980		
3,700.0	3,312.2	2,341.8	2,160.2	26.0	14.3	-146.31	778.0	322.7	2,293.6	2,271.5	22.05	104.018		
3,800.0	3,391.8	2,383.4	2,195.7	27.2	14.8	-146.88	798.8	328.3	2,383.9	2,361.2	22.70	105.003		
3,900.0	3,471.3	2,425.0	2,231.2	28.4	15.2	-147.41	819.7	334.0	2,474.3	2,451.0	23.36	105.931		
3,963.3	3,521.6	2,451.3	2,253.7	29.2	15.4	-147.73	832.9	337.6	2,531.6	2,507.8	23.77	106.491		
4,000.0	3,551.1	2,466.9	2,267.1	29.6	15.6	-149.29	840.7	339.7	2,564.6	2,541.1	23.57	108.820		
4,100.0	3,633.7	2,513.0	2,306.5	30.4	16.0	-152.84	863.8	346.0	2,653.1	2,629.7	23.33	113.696		
4,200.0	3,719.6	2,564.1	2,350.2	31.2	16.5	-155.58	889.4	353.0	2,738.8	2,715.3	23.50	116.541		
4,300.0	3,808.5	2,620.1	2,398.0	32.0	17.1	-157.73	917.5	360.6	2,821.6	2,797.7	23.90	118.072		
4,400.0	3,900.0	2,680.7	2,449.8	32.6	17.7	-159.42	947.8	368.9	2,901.1	2,876.7	24.41	118.831		
4,500.0	3,993.7	2,745.8	2,505.4	33.2	18.3	-160.76	980.5	377.8	2,977.0	2,952.1	24.98	119.170		
4,600.0	4,089.5	2,815.0	2,564.6	33.7	19.0	-161.82	1,015.1	387.2	3,049.1	3,023.5	25.56	119.311		
4,700.0	4,186.8	2,888.2	2,627.1	34.1	19.7	-162.66	1,051.8	397.2	3,117.0	3,090.8	26.11	119.386		
4,800.0	4,285.3	2,965.0	2,692.7	34.4	20.5	-163.31	1,090.3	407.7	3,180.5	3,153.9	26.62	119.478		
4,900.0	4,384.7	3,045.2	2,761.3	34.6	21.2	-163.82	1,130.5	418.6	3,239.4	3,212.3	27.08	119.642		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 42B-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance								Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,484.6	3,128.4	2,832.4	34.7	22.1	-164.19	1,172.2	430.0	3,293.5	3,266.0	27.47	119.909		
5,029.4	4,514.0	3,153.5	2,853.8	34.7	22.3	-2.11	1,184.7	433.4	3,308.5	3,280.9	27.57	120.012		
5,100.0	4,584.6	3,213.8	2,905.3	34.8	22.9	-1.92	1,214.9	441.6	3,343.9	3,316.0	27.94	119.700		
5,200.0	4,684.6	3,299.2	2,978.3	34.8	23.7	-1.67	1,257.8	453.3	3,394.2	3,365.7	28.46	119.276		
5,300.0	4,784.6	3,384.7	3,051.4	34.9	24.6	-1.42	1,300.6	464.9	3,444.5	3,415.5	28.98	118.874		
5,400.0	4,884.6	3,470.1	3,124.4	34.9	25.4	-1.18	1,343.4	476.6	3,494.8	3,465.3	29.49	118.494		
5,500.0	4,984.6	3,555.6	3,197.4	35.0	26.3	-0.94	1,386.2	488.3	3,545.2	3,515.2	30.01	118.134		
5,600.0	5,084.6	3,641.0	3,270.4	35.0	27.1	-0.72	1,429.1	499.9	3,595.6	3,565.1	30.52	117.793		
5,700.0	5,184.6	3,726.5	3,343.5	35.1	27.9	-0.49	1,471.9	511.6	3,646.1	3,615.1	31.04	117.469		
5,800.0	5,284.6	3,811.9	3,416.5	35.2	28.8	-0.28	1,514.7	523.2	3,696.6	3,665.1	31.55	117.162		
5,900.0	5,384.6	3,897.4	3,489.5	35.2	29.6	-0.07	1,557.5	534.9	3,747.2	3,715.1	32.06	116.869		
6,000.0	5,484.6	3,982.9	3,562.6	35.3	30.5	0.14	1,600.4	546.5	3,797.8	3,765.2	32.57	116.590		
6,100.0	5,584.6	6,134.0	5,584.6	35.4	40.5	2.27	2,124.0	689.1	3,802.1	3,763.8	38.35	99.151		
6,200.0	5,684.6	6,234.0	5,684.6	35.4	40.5	2.27	2,124.0	689.1	3,802.1	3,763.5	38.60	98.504		
6,300.0	5,784.6	6,334.0	5,784.6	35.5	40.6	2.27	2,124.0	689.1	3,802.1	3,763.3	38.85	97.855		
6,400.0	5,884.6	6,434.0	5,884.6	35.6	40.6	2.27	2,124.0	689.1	3,802.1	3,763.0	39.11	97.207		
6,500.0	5,984.6	6,534.0	5,984.6	35.6	40.7	2.27	2,124.0	689.1	3,802.1	3,762.7	39.38	96.558		
6,600.0	6,084.6	6,634.0	6,084.6	35.7	40.8	2.27	2,124.0	689.1	3,802.1	3,762.5	39.64	95.910		
6,700.0	6,184.6	6,734.0	6,184.6	35.8	40.8	2.27	2,124.0	689.1	3,802.1	3,762.2	39.91	95.263		
6,800.0	6,284.6	6,834.0	6,284.6	35.9	40.9	2.27	2,124.0	689.1	3,802.1	3,761.9	40.18	94.617		
6,900.0	6,384.6	6,934.0	6,384.6	35.9	41.0	2.27	2,124.0	689.1	3,802.1	3,761.7	40.46	93.972		
7,000.0	6,484.6	7,034.0	6,484.6	36.0	41.0	2.27	2,124.0	689.1	3,802.1	3,761.4	40.74	93.329		
7,100.0	6,584.6	7,134.0	6,584.6	36.1	41.1	2.27	2,124.0	689.1	3,802.1	3,761.1	41.02	92.688		
7,200.0	6,684.6	7,234.0	6,684.6	36.2	41.2	2.27	2,124.0	689.1	3,802.1	3,760.8	41.31	92.049		
7,300.0	6,784.6	7,334.0	6,784.6	36.2	41.3	2.27	2,124.0	689.1	3,802.1	3,760.5	41.59	91.412		
7,400.0	6,884.6	7,434.0	6,884.6	36.3	41.3	2.27	2,124.0	689.1	3,802.1	3,760.2	41.88	90.778		
7,500.0	6,984.6	7,534.0	6,984.6	36.4	41.4	2.27	2,124.0	689.1	3,802.1	3,759.9	42.18	90.147		
7,600.0	7,084.6	7,634.0	7,084.6	36.5	41.5	2.27	2,124.0	689.1	3,802.1	3,759.6	42.47	89.518		
7,637.6	7,122.2	7,671.6	7,122.2	36.5	41.5	2.27	2,124.0	689.1	3,802.1	3,759.5	42.59	89.282		
7,700.0	7,184.6	7,687.4	7,138.0	36.6	41.5	2.27	2,124.0	689.1	3,802.4	3,759.7	42.70	89.045		
7,800.0	7,284.6	7,687.4	7,138.0	36.7	41.5	2.27	2,124.0	689.1	3,804.9	3,762.1	42.85	88.792		
7,813.4	7,298.0	7,687.4	7,138.0	36.7	41.5	2.27	2,124.0	689.1	3,805.5	3,762.6	42.87	88.762		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 42C-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	60.75	67.2	119.9	137.5					
100.0	100.0	100.0	100.0	0.1	0.1	60.75	67.2	119.9	137.5	137.3	0.19	722.881		
200.0	200.0	200.0	200.0	0.3	0.3	60.75	67.2	119.9	137.5	136.8	0.64	214.883		
300.0	300.0	300.0	300.0	0.5	0.5	60.75	67.2	119.9	137.5	136.4	1.09	126.199 CC, ES		
400.0	400.0	394.7	394.7	0.8	0.8	59.89	69.9	120.5	139.4	137.8	1.53	91.231		
500.0	500.0	488.8	488.4	1.0	1.0	57.46	77.8	122.0	145.2	143.2	1.98	73.314		
600.0	600.0	581.7	580.3	1.2	1.2	53.89	90.9	124.6	155.5	153.0	2.47	63.050		
700.0	700.0	672.8	669.6	1.4	1.6	49.70	108.6	128.1	170.7	167.7	2.99	57.072		
800.0	800.0	761.6	755.5	1.7	2.0	45.40	130.6	132.4	191.2	187.7	3.55	53.890		
900.0	900.0	847.6	837.5	1.9	2.4	41.35	156.2	137.5	217.3	213.1	4.13	52.630 SF		
1,000.0	1,000.0	930.7	915.2	2.1	2.9	37.74	184.9	143.1	248.7	244.0	4.72	52.723		
1,100.0	1,100.0	1,010.5	988.4	2.3	3.5	34.63	216.1	149.2	285.4	280.0	5.31	53.771		
1,200.0	1,199.9	1,091.2	1,060.9	2.5	4.1	-129.41	250.8	156.1	328.3	322.8	5.53	59.327		
1,300.0	1,299.5	1,176.8	1,137.5	2.7	4.8	-131.41	288.3	163.5	376.4	370.4	5.99	62.886		
1,400.0	1,398.3	1,259.3	1,211.3	2.9	5.5	-133.13	324.4	170.6	429.1	422.6	6.43	66.712		
1,500.0	1,496.0	1,338.4	1,282.2	3.2	6.1	-134.54	359.0	177.4	486.2	479.4	6.87	70.808		
1,600.0	1,592.3	1,414.0	1,349.8	3.6	6.8	-135.63	392.1	183.9	547.8	540.5	7.32	74.816		
1,700.0	1,686.7	1,485.6	1,413.9	4.0	7.4	-136.37	423.4	190.1	613.7	605.9	7.82	78.517		
1,800.0	1,778.9	1,553.0	1,474.3	4.6	7.9	-136.75	452.9	195.9	683.7	675.3	8.37	81.685		
1,900.0	1,868.5	1,616.0	1,530.7	5.3	8.5	-136.74	480.5	201.3	757.6	748.6	9.01	84.098		
2,000.0	1,955.3	1,674.4	1,582.9	6.1	8.9	-136.32	506.0	206.3	835.2	825.4	9.77	85.515		
2,100.0	2,039.0	1,727.8	1,630.7	7.1	9.4	-135.42	529.4	211.0	916.1	905.5	10.68	85.762		
2,166.2	2,092.4	1,760.4	1,659.9	7.8	9.7	-134.53	543.7	213.8	971.4	960.0	11.40	85.217		
2,200.0	2,119.3	1,776.5	1,674.2	8.1	9.8	-135.32	550.7	215.1	1,000.1	988.5	11.61	86.165		
2,300.0	2,198.8	1,824.0	1,716.8	9.3	10.2	-137.46	571.5	219.2	1,085.1	1,072.8	12.22	88.785		
2,400.0	2,278.3	1,871.5	1,759.3	10.4	10.6	-139.34	592.3	223.3	1,170.5	1,157.7	12.84	91.181		
2,500.0	2,357.9	1,919.0	1,801.8	11.6	11.0	-141.00	613.1	227.4	1,256.3	1,242.8	13.45	93.386		
2,600.0	2,437.4	1,966.6	1,844.4	12.8	11.4	-142.48	633.9	231.5	1,342.4	1,328.3	14.07	95.418		
2,700.0	2,516.9	2,014.1	1,886.9	13.9	11.8	-143.80	654.7	235.6	1,428.7	1,414.0	14.68	97.302		
2,800.0	2,596.5	2,061.6	1,929.5	15.1	12.2	-144.98	675.5	239.7	1,515.2	1,499.9	15.30	99.044		
2,900.0	2,676.0	2,109.1	1,972.0	16.3	12.6	-146.05	696.3	243.8	1,601.8	1,585.9	15.91	100.664		
3,000.0	2,755.5	2,156.7	2,014.5	17.5	13.0	-147.02	717.1	247.9	1,688.6	1,672.1	16.53	102.163		
3,100.0	2,835.1	2,204.2	2,057.1	18.7	13.4	-147.90	737.9	252.0	1,775.5	1,758.4	17.14	103.561		
3,200.0	2,914.6	2,251.7	2,099.6	19.9	13.8	-148.70	758.7	256.1	1,862.5	1,844.8	17.76	104.858		
3,300.0	2,994.1	2,299.2	2,142.1	21.1	14.2	-149.43	779.5	260.2	1,949.7	1,931.3	18.38	106.069		
3,400.0	3,073.7	2,346.8	2,184.7	22.3	14.6	-150.11	800.3	264.3	2,036.8	2,017.8	19.00	107.194		
3,500.0	3,153.2	2,394.3	2,227.2	23.5	15.0	-150.74	821.1	268.4	2,124.1	2,104.5	19.62	108.248		
3,600.0	3,232.7	2,441.8	2,269.7	24.8	15.4	-151.31	841.9	272.5	2,211.4	2,191.1	20.25	109.229		
3,700.0	3,312.2	2,489.3	2,312.3	26.0	15.9	-151.85	862.7	276.6	2,298.7	2,277.9	20.87	110.150		
3,800.0	3,391.8	2,536.9	2,354.8	27.2	16.3	-152.35	883.5	280.7	2,386.1	2,364.6	21.49	111.009		
3,900.0	3,471.3	2,584.4	2,397.3	28.4	16.7	-152.81	904.3	284.8	2,473.6	2,451.5	22.12	111.817		
3,963.3	3,521.6	2,614.5	2,424.3	29.2	16.9	-153.09	917.5	287.4	2,528.9	2,506.4	22.52	112.301		
4,000.0	3,551.1	2,632.3	2,440.2	29.6	17.1	-154.24	925.2	288.9	2,560.9	2,538.4	22.50	113.821		
4,100.0	3,633.7	2,684.2	2,486.7	30.4	17.5	-156.90	948.0	293.4	2,646.0	2,623.3	22.66	116.759		
4,200.0	3,719.6	2,741.1	2,537.6	31.2	18.0	-158.99	972.9	298.3	2,728.0	2,704.9	23.09	118.169		
4,300.0	3,808.5	2,802.8	2,592.8	32.0	18.5	-160.65	999.9	303.6	2,806.6	2,783.0	23.65	118.679		
4,400.0	3,900.0	2,868.9	2,652.0	32.6	19.1	-161.97	1,028.8	309.3	2,881.6	2,857.3	24.27	118.708		
4,500.0	3,993.7	2,939.4	2,715.1	33.2	19.7	-163.03	1,059.6	315.4	2,952.5	2,927.6	24.91	118.519		
4,600.0	4,089.5	3,013.8	2,781.7	33.7	20.3	-163.87	1,092.2	321.8	3,019.3	2,993.8	25.53	118.268		
4,700.0	4,186.8	3,091.9	2,851.6	34.1	21.0	-164.54	1,126.4	328.5	3,081.6	3,055.5	26.10	118.047		
4,800.0	4,285.3	3,173.5	2,924.6	34.4	21.7	-165.06	1,162.1	335.5	3,139.1	3,112.5	26.62	117.913		
4,900.0	4,384.7	3,258.1	3,000.4	34.6	22.4	-165.46	1,199.2	342.8	3,191.8	3,164.7	27.07	117.901		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 42C-11-06-92 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,484.6	3,345.6	3,078.7	34.7	23.1	-165.75	1,237.4	350.4	3,239.4	3,211.9	27.45	118.029	
5,029.4	4,514.0	3,371.9	3,102.2	34.7	23.4	-3.64	1,248.9	352.6	3,252.4	3,224.8	27.54	118.097	
5,100.0	4,584.6	3,435.0	3,158.7	34.8	23.9	-3.50	1,276.6	358.1	3,283.0	3,255.1	27.88	117.737	
5,200.0	4,684.6	3,524.5	3,238.8	34.8	24.7	-3.31	1,315.7	365.8	3,326.5	3,298.1	28.37	117.240	
5,300.0	4,784.6	3,614.0	3,318.9	34.9	25.4	-3.12	1,354.9	373.5	3,369.9	3,341.1	28.86	116.760	
5,400.0	4,884.6	3,703.5	3,399.0	34.9	26.2	-2.94	1,394.1	381.2	3,413.4	3,384.1	29.35	116.297	
5,500.0	4,984.6	3,793.0	3,479.1	35.0	26.9	-2.76	1,433.2	388.9	3,457.0	3,427.1	29.84	115.851	
5,600.0	5,084.6	3,882.5	3,559.2	35.0	27.7	-2.58	1,472.4	396.6	3,500.5	3,470.2	30.33	115.419	
5,700.0	5,184.6	3,972.0	3,639.3	35.1	28.5	-2.41	1,511.6	404.3	3,544.1	3,513.3	30.82	115.002	
5,800.0	5,284.6	4,061.5	3,719.4	35.2	29.2	-2.25	1,550.7	412.1	3,587.7	3,556.4	31.31	114.598	
5,900.0	5,384.6	5,009.6	5,384.6	35.2	36.9	-0.75	1,953.7	491.4	3,629.1	3,593.2	35.93	101.010	
6,000.0	5,484.6	5,909.6	5,484.6	35.3	36.9	-0.75	1,953.7	491.4	3,629.1	3,592.9	36.19	100.283	
6,100.0	5,584.6	6,009.6	5,584.6	35.4	37.0	-0.75	1,953.7	491.4	3,629.1	3,592.7	36.45	99.557	
6,200.0	5,684.6	6,109.6	5,684.6	35.4	37.1	-0.75	1,953.7	491.4	3,629.1	3,592.4	36.72	98.831	
6,300.0	5,784.6	6,209.6	5,784.6	35.5	37.1	-0.75	1,953.7	491.4	3,629.1	3,592.1	36.99	98.107	
6,400.0	5,884.6	6,309.6	5,884.6	35.6	37.2	-0.75	1,953.7	491.4	3,629.1	3,591.8	37.27	97.384	
6,500.0	5,984.6	6,409.6	5,984.6	35.6	37.3	-0.75	1,953.7	491.4	3,629.1	3,591.6	37.54	96.663	
6,600.0	6,084.6	6,509.6	6,084.6	35.7	37.4	-0.75	1,953.7	491.4	3,629.1	3,591.3	37.83	95.944	
6,700.0	6,184.6	6,609.6	6,184.6	35.8	37.4	-0.75	1,953.7	491.4	3,629.1	3,591.0	38.11	95.228	
6,800.0	6,284.6	6,709.6	6,284.6	35.9	37.5	-0.75	1,953.7	491.4	3,629.1	3,590.7	38.40	94.515	
6,900.0	6,384.6	6,809.6	6,384.6	35.9	37.6	-0.75	1,953.7	491.4	3,629.1	3,590.4	38.69	93.805	
7,000.0	6,484.6	6,909.6	6,484.6	36.0	37.7	-0.75	1,953.7	491.4	3,629.1	3,590.1	38.98	93.098	
7,100.0	6,584.6	7,009.6	6,584.6	36.1	37.7	-0.75	1,953.7	491.4	3,629.1	3,589.8	39.28	92.394	
7,200.0	6,684.6	7,109.6	6,684.6	36.2	37.8	-0.75	1,953.7	491.4	3,629.1	3,589.5	39.58	91.695	
7,300.0	6,784.6	7,209.6	6,784.6	36.2	37.9	-0.75	1,953.7	491.4	3,629.1	3,589.2	39.88	91.000	
7,400.0	6,884.6	7,309.6	6,884.6	36.3	38.0	-0.75	1,953.7	491.4	3,629.1	3,588.9	40.19	90.309	
7,500.0	6,984.6	7,409.6	6,984.6	36.4	38.1	-0.75	1,953.7	491.4	3,629.1	3,588.6	40.49	89.622	
7,600.0	7,084.6	7,509.6	7,084.6	36.5	38.1	-0.75	1,953.7	491.4	3,629.1	3,588.3	40.80	88.940	
7,651.3	7,135.9	7,560.9	7,135.9	36.5	38.2	-0.75	1,953.7	491.4	3,629.1	3,588.1	40.96	88.592	
7,700.0	7,184.6	7,578.0	7,153.0	36.6	38.2	-0.75	1,953.7	491.4	3,629.2	3,588.2	41.07	88.374	
7,800.0	7,284.6	7,578.0	7,153.0	36.7	38.2	-0.75	1,953.7	491.4	3,631.5	3,590.3	41.22	88.095	
7,813.4	7,298.0	7,578.0	7,153.0	36.7	38.2	-0.75	1,953.7	491.4	3,632.0	3,590.8	41.24	88.062	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Valley Farms L - 42D-11-06-92 - Wellbore #1 - Design #1		Offset Site Error: 0.0 usft	
Survey Program: 0-MWD													Offset Well Error: 0.0 usft			
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
0.0	0.0	0.0	0.0	0.0	0.0	60.74	61.1	109.0	125.0							
100.0	100.0	100.0	100.0	0.1	0.1	60.74	61.1	109.0	125.0	124.8	0.19	657.183				
200.0	200.0	200.0	200.0	0.3	0.3	60.74	61.1	109.0	125.0	124.3	0.64	195.354				
300.0	300.0	300.0	300.0	0.5	0.5	60.74	61.1	109.0	125.0	123.9	1.09	114.729				
400.0	400.0	400.0	400.0	0.8	0.8	60.74	61.1	109.0	125.0	123.4	1.54	81.212				
500.0	500.0	500.0	500.0	1.0	1.0	60.74	61.1	109.0	125.0	123.0	1.99	62.851				
533.5	533.5	533.5	533.5	1.1	1.1	60.74	61.1	109.0	125.0	122.8	2.14	58.431	CC, ES			
600.0	600.0	597.8	597.8	1.2	1.2	60.54	61.7	109.2	125.4	123.0	2.43	51.548				
700.0	700.0	693.3	693.2	1.4	1.4	59.00	66.3	110.3	128.9	126.0	2.87	44.865				
800.0	800.0	788.0	787.4	1.7	1.7	56.17	75.5	112.6	136.1	132.8	3.32	40.948				
900.0	900.0	881.6	880.0	1.9	1.9	52.50	89.0	115.9	147.5	143.7	3.80	38.841				
1,000.0	1,000.0	973.6	970.2	2.1	2.2	48.48	106.5	120.3	163.4	159.1	4.29	38.043	SF			
1,100.0	1,100.0	1,063.7	1,057.5	2.3	2.6	44.50	127.7	125.5	184.1	179.2	4.82	38.218				
1,200.0	1,199.9	1,150.7	1,140.8	2.5	3.0	-121.12	152.0	131.5	211.1	205.8	5.23	40.378				
1,300.0	1,299.5	1,233.0	1,218.5	2.7	3.4	-124.70	178.4	138.1	246.4	240.7	5.66	43.505				
1,400.0	1,398.3	1,309.8	1,289.9	2.9	3.9	-127.88	205.9	144.9	290.1	284.0	6.09	47.621				
1,500.0	1,496.0	1,380.5	1,354.6	3.2	4.4	-130.38	233.6	151.7	342.2	335.6	6.53	52.407				
1,600.0	1,592.3	1,444.7	1,412.3	3.6	4.8	-132.13	260.8	158.5	401.9	394.9	6.98	57.591				
1,700.0	1,686.7	1,500.0	1,461.3	4.0	5.3	-132.99	285.7	164.6	468.6	461.1	7.47	62.752				
1,800.0	1,778.9	1,556.6	1,510.6	4.6	5.8	-133.55	312.6	171.3	541.3	533.2	8.03	67.372				
1,900.0	1,868.5	1,615.8	1,562.1	5.3	6.3	-133.89	341.1	178.3	618.3	609.6	8.67	71.334				
2,000.0	1,955.3	1,670.3	1,609.4	6.1	6.8	-133.62	367.3	184.8	698.8	689.4	9.41	74.264				
2,100.0	2,039.0	1,719.8	1,652.4	7.1	7.2	-132.69	391.1	190.7	782.5	772.2	10.30	75.949				
2,166.2	2,092.4	1,749.7	1,678.4	7.8	7.5	-131.68	405.5	194.3	839.5	828.5	11.01	76.272				
2,200.0	2,119.3	1,764.4	1,691.2	8.1	7.6	-132.62	412.6	196.1	869.0	857.7	11.23	77.365				
2,300.0	2,198.8	1,807.9	1,729.0	9.3	8.0	-135.10	433.5	201.2	956.4	944.5	11.89	80.416				
2,400.0	2,278.3	1,851.5	1,766.8	10.4	8.4	-137.24	454.5	206.4	1,044.3	1,031.8	12.55	83.197				
2,500.0	2,357.9	1,895.0	1,804.6	11.6	8.8	-139.09	475.4	211.6	1,132.6	1,119.4	13.20	85.784				
2,600.0	2,437.4	1,938.5	1,842.3	12.8	9.2	-140.71	496.4	216.8	1,221.1	1,207.2	13.85	88.157				
2,700.0	2,516.9	1,982.0	1,880.1	13.9	9.6	-142.13	517.3	222.0	1,309.8	1,295.3	14.49	90.365				
2,800.0	2,596.5	2,025.5	1,917.9	15.1	10.0	-143.39	538.2	227.2	1,398.7	1,383.5	15.14	92.407				
2,900.0	2,676.0	2,069.0	1,955.7	16.3	10.4	-144.52	559.2	232.3	1,487.7	1,471.9	15.78	94.301				
3,000.0	2,755.5	2,112.5	1,993.5	17.5	10.8	-145.52	580.1	237.5	1,576.8	1,560.4	16.41	96.066				
3,100.0	2,835.1	2,156.1	2,031.3	18.7	11.2	-146.43	601.0	242.7	1,666.0	1,649.0	17.05	97.698				
3,200.0	2,914.6	2,199.6	2,069.1	19.9	11.6	-147.25	622.0	247.9	1,755.4	1,737.7	17.69	99.227				
3,300.0	2,994.1	2,243.1	2,106.9	21.1	12.0	-148.00	642.9	253.1	1,844.7	1,826.4	18.33	100.641				
3,400.0	3,073.7	2,286.6	2,144.7	22.3	12.4	-148.68	663.9	258.3	1,934.2	1,915.2	18.97	101.967				
3,500.0	3,153.2	2,330.1	2,182.5	23.5	12.8	-149.30	684.8	263.4	2,023.7	2,004.1	19.61	103.201				
3,600.0	3,232.7	2,373.6	2,220.3	24.8	13.2	-149.87	705.7	268.6	2,113.2	2,093.0	20.25	104.357				
3,700.0	3,312.2	2,417.1	2,258.1	26.0	13.6	-150.40	726.7	273.8	2,202.8	2,181.9	20.89	105.440				
3,800.0	3,391.8	2,460.7	2,295.8	27.2	14.0	-150.89	747.6	279.0	2,292.4	2,270.9	21.53	106.452				
3,900.0	3,471.3	2,504.2	2,333.6	28.4	14.4	-151.34	768.5	284.2	2,382.1	2,359.9	22.18	107.406				
3,963.3	3,521.6	2,531.7	2,357.6	29.2	14.7	-151.61	781.8	287.5	2,438.8	2,416.2	22.59	107.975				
4,000.0	3,551.1	2,548.0	2,371.7	29.6	14.8	-152.94	789.7	289.4	2,471.6	2,449.1	22.52	109.755				
4,100.0	3,633.7	2,596.1	2,413.4	30.4	15.3	-155.95	812.8	295.1	2,559.1	2,536.5	22.57	113.383				
4,200.0	3,719.6	2,649.1	2,459.5	31.2	15.8	-158.28	838.3	301.4	2,643.8	2,620.9	22.91	115.418				
4,300.0	3,808.5	2,706.9	2,509.7	32.0	16.3	-160.09	866.1	308.3	2,725.3	2,701.9	23.40	116.481				
4,400.0	3,900.0	2,769.4	2,564.0	32.6	16.9	-161.52	896.2	315.8	2,803.4	2,779.4	23.96	116.987				
4,500.0	3,993.7	2,836.3	2,622.0	33.2	17.5	-162.65	928.3	323.7	2,877.7	2,853.1	24.55	117.205				
4,600.0	4,089.5	2,907.2	2,683.7	33.7	18.2	-163.54	962.5	332.2	2,948.0	2,922.9	25.13	117.299				
4,700.0	4,186.8	2,982.1	2,748.7	34.1	18.9	-164.24	998.5	341.1	3,014.0	2,988.3	25.68	117.371				
4,800.0	4,285.3	3,060.5	2,816.8	34.4	19.6	-164.78	1,036.2	350.5	3,075.5	3,049.4	26.18	117.484				

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,384.7	3,142.2	2,887.7	34.6	20.4	-165.19	1,075.5	360.2	3,132.3	3,105.7	26.62	117.682		
5,000.0	4,484.6	3,226.9	2,961.3	34.7	21.2	-165.48	1,116.3	370.3	3,184.2	3,157.2	26.99	117.990		
5,029.4	4,514.0	3,252.3	2,983.4	34.7	21.4	-3.38	1,128.5	373.3	3,198.5	3,171.4	27.08	118.105		
5,100.0	4,584.6	3,313.6	3,036.6	34.8	22.0	-3.19	1,158.0	380.6	3,232.3	3,204.9	27.45	117.766		
5,200.0	4,684.6	3,400.4	3,112.0	34.8	22.8	-2.94	1,199.8	391.0	3,280.2	3,252.3	27.96	117.303		
5,300.0	4,784.6	5,166.0	4,784.6	34.9	30.7	-0.74	1,623.8	495.9	3,299.2	3,266.3	32.87	100.359		
5,400.0	4,884.6	5,266.0	4,884.6	34.9	30.8	-0.74	1,623.8	495.9	3,299.2	3,266.1	33.12	99.606		
5,500.0	4,984.6	5,366.0	4,984.6	35.0	30.9	-0.74	1,623.8	495.9	3,299.2	3,265.8	33.38	98.852		
5,600.0	5,084.6	5,466.0	5,084.6	35.0	30.9	-0.74	1,623.8	495.9	3,299.2	3,265.6	33.63	98.096		
5,700.0	5,184.6	5,566.0	5,184.6	35.1	31.0	-0.74	1,623.8	495.9	3,299.2	3,265.3	33.89	97.341		
5,800.0	5,284.6	5,666.0	5,284.6	35.2	31.1	-0.74	1,623.8	495.9	3,299.2	3,265.0	34.16	96.587		
5,900.0	5,384.6	5,766.0	5,384.6	35.2	31.2	-0.74	1,623.8	495.9	3,299.2	3,264.8	34.43	95.833		
6,000.0	5,484.6	5,866.0	5,484.6	35.3	31.2	-0.74	1,623.8	495.9	3,299.2	3,264.5	34.70	95.081		
6,100.0	5,584.6	5,966.0	5,584.6	35.4	31.3	-0.74	1,623.8	495.9	3,299.2	3,264.2	34.97	94.331		
6,200.0	5,684.6	6,066.0	5,684.6	35.4	31.4	-0.74	1,623.8	495.9	3,299.2	3,263.9	35.25	93.583		
6,300.0	5,784.6	6,166.0	5,784.6	35.5	31.5	-0.74	1,623.8	495.9	3,299.2	3,263.6	35.54	92.838		
6,400.0	5,884.6	6,266.0	5,884.6	35.6	31.6	-0.74	1,623.8	495.9	3,299.2	3,263.4	35.82	92.095		
6,500.0	5,984.6	6,366.0	5,984.6	35.6	31.7	-0.74	1,623.8	495.9	3,299.2	3,263.1	36.11	91.356		
6,600.0	6,084.6	6,466.0	6,084.6	35.7	31.7	-0.74	1,623.8	495.9	3,299.2	3,262.8	36.41	90.621		
6,700.0	6,184.6	6,566.0	6,184.6	35.8	31.8	-0.74	1,623.8	495.9	3,299.2	3,262.5	36.70	89.890		
6,800.0	6,284.6	6,666.0	6,284.6	35.9	31.9	-0.74	1,623.8	495.9	3,299.2	3,262.2	37.00	89.163		
6,900.0	6,384.6	6,766.0	6,384.6	35.9	32.0	-0.74	1,623.8	495.9	3,299.2	3,261.9	37.30	88.441		
7,000.0	6,484.6	6,866.0	6,484.6	36.0	32.1	-0.74	1,623.8	495.9	3,299.2	3,261.6	37.61	87.724		
7,100.0	6,584.6	6,966.0	6,584.6	36.1	32.2	-0.74	1,623.8	495.9	3,299.2	3,261.3	37.92	87.011		
7,200.0	6,684.6	7,066.0	6,684.6	36.2	32.3	-0.74	1,623.8	495.9	3,299.2	3,261.0	38.23	86.304		
7,300.0	6,784.6	7,166.0	6,784.6	36.2	32.4	-0.74	1,623.8	495.9	3,299.2	3,260.6	38.54	85.602		
7,400.0	6,884.6	7,266.0	6,884.6	36.3	32.5	-0.74	1,623.8	495.9	3,299.2	3,260.3	38.86	84.905		
7,500.0	6,984.6	7,366.0	6,984.6	36.4	32.6	-0.74	1,623.8	495.9	3,299.2	3,260.0	39.18	84.214		
7,600.0	7,084.6	7,466.0	7,084.6	36.5	32.7	-0.74	1,623.8	495.9	3,299.2	3,259.7	39.50	83.529		
7,660.1	7,144.6	7,526.1	7,144.6	36.5	32.7	-0.74	1,623.8	495.9	3,299.2	3,259.5	39.69	83.120		
7,700.0	7,184.6	7,549.5	7,168.0	36.6	32.8	-0.74	1,623.8	495.9	3,299.2	3,259.4	39.79	82.910		
7,800.0	7,284.6	7,549.5	7,168.0	36.7	32.8	-0.74	1,623.8	495.9	3,301.2	3,261.3	39.95	82.637		
7,813.4	7,298.0	7,549.5	7,168.0	36.7	32.8	-0.74	1,623.8	495.9	3,301.7	3,261.8	39.97	82.606		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 43A-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	55.0	98.1	112.5					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	55.0	98.1	112.5	112.3	0.19	591.475		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	55.0	98.1	112.5	111.8	0.64	175.822		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	55.0	98.1	112.5	111.4	1.09	103.258		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	55.0	98.1	112.5	110.9	1.54	73.092		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	55.0	98.1	112.5	110.5	1.99	56.567		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	55.0	98.1	112.5	110.0	2.44	46.136 CC, ES		
700.0	700.0	695.8	695.7	1.4	1.4	59.92	57.3	98.9	114.3	111.4	2.88	39.740		
800.0	800.0	791.1	790.8	1.7	1.7	57.63	64.1	101.1	120.0	116.7	3.32	36.140		
900.0	900.0	885.4	884.4	1.9	1.9	54.30	75.2	104.7	129.9	126.1	3.78	34.361		
1,000.0	1,000.0	978.4	975.9	2.1	2.2	50.47	90.5	109.7	144.2	140.0	4.26	33.860 SF		
1,100.0	1,100.0	1,069.6	1,064.9	2.3	2.5	46.59	109.6	115.9	163.3	158.6	4.76	34.311		
1,200.0	1,199.9	1,157.9	1,150.0	2.5	2.8	-119.11	131.9	123.1	188.7	183.5	5.18	36.406		
1,300.0	1,299.5	1,241.9	1,229.9	2.7	3.3	-122.90	156.6	131.1	222.2	216.6	5.61	39.596		
1,400.0	1,398.3	1,320.5	1,303.6	2.9	3.7	-126.30	182.7	139.6	264.2	258.2	6.04	43.745		
1,500.0	1,496.0	1,394.8	1,372.0	3.2	4.2	-129.09	210.0	148.5	314.5	308.0	6.49	48.486		
1,600.0	1,592.3	1,474.2	1,444.9	3.6	4.7	-131.71	240.1	158.2	370.7	363.8	6.94	53.440		
1,700.0	1,686.7	1,550.1	1,514.5	4.0	5.3	-133.67	268.9	167.6	431.7	424.3	7.43	58.108		
1,800.0	1,778.9	1,622.2	1,580.6	4.6	5.8	-135.07	296.3	176.5	497.2	489.2	7.94	62.586		
1,900.0	1,868.5	1,690.1	1,642.8	5.3	6.3	-135.96	322.0	184.8	566.9	558.3	8.52	66.530		
2,000.0	1,955.3	1,753.6	1,701.1	6.1	6.7	-136.37	346.1	192.7	640.5	631.4	9.17	69.813		
2,100.0	2,039.0	1,812.6	1,755.2	7.1	7.2	-136.28	368.5	199.9	717.9	708.0	9.93	72.313		
2,166.2	2,092.4	1,848.9	1,788.5	7.8	7.4	-135.93	382.3	204.4	771.1	760.6	10.50	73.432		
2,200.0	2,119.3	1,867.0	1,805.0	8.1	7.6	-136.82	389.1	206.6	798.6	787.9	10.72	74.501		
2,300.0	2,198.8	1,920.3	1,853.9	9.3	8.0	-139.17	409.4	213.2	880.5	869.1	11.37	77.437		
2,400.0	2,278.3	1,973.6	1,902.8	10.4	8.4	-141.17	429.6	219.8	962.9	950.8	12.02	80.074		
2,500.0	2,357.9	2,026.9	1,951.7	11.6	8.8	-142.88	449.8	226.3	1,045.6	1,032.9	12.68	82.460		
2,600.0	2,437.4	2,080.2	2,000.6	12.8	9.2	-144.36	470.1	232.9	1,128.6	1,115.2	13.34	84.625		
2,700.0	2,516.9	2,133.6	2,049.5	13.9	9.6	-145.66	490.3	239.5	1,211.8	1,197.8	13.99	86.591		
2,800.0	2,596.5	2,186.9	2,098.4	15.1	10.0	-146.80	510.5	246.1	1,295.2	1,280.5	14.65	88.388		
2,900.0	2,676.0	2,240.2	2,147.3	16.3	10.4	-147.81	530.8	252.6	1,378.7	1,363.4	15.32	90.025		
3,000.0	2,755.5	2,293.5	2,196.2	17.5	10.8	-148.71	551.0	259.2	1,462.4	1,446.4	15.98	91.529		
3,100.0	2,835.1	2,346.8	2,245.1	18.7	11.2	-149.52	571.2	265.8	1,546.2	1,529.5	16.64	92.903		
3,200.0	2,914.6	2,400.1	2,293.9	19.9	11.6	-150.24	591.4	272.3	1,630.0	1,612.7	17.31	94.174		
3,300.0	2,994.1	2,453.5	2,342.8	21.1	12.0	-150.90	611.7	278.9	1,713.9	1,696.0	17.98	95.338		
3,400.0	3,073.7	2,506.8	2,391.7	22.3	12.4	-151.50	631.9	285.5	1,797.9	1,779.3	18.65	96.418		
3,500.0	3,153.2	2,560.1	2,440.6	23.5	12.8	-152.05	652.1	292.0	1,882.0	1,862.7	19.32	97.413		
3,600.0	3,232.7	2,613.4	2,489.5	24.8	13.2	-152.55	672.4	298.6	1,966.1	1,946.1	19.99	98.339		
3,700.0	3,312.2	2,666.7	2,538.4	26.0	13.6	-153.01	692.6	305.2	2,050.2	2,029.5	20.67	99.196		
3,800.0	3,391.8	2,720.0	2,587.3	27.2	14.0	-153.44	712.8	311.7	2,134.4	2,113.0	21.34	99.996		
3,900.0	3,471.3	2,773.4	2,636.2	28.4	14.4	-153.84	733.1	318.3	2,218.6	2,196.6	22.02	100.740		
3,963.3	3,521.6	2,807.1	2,667.1	29.2	14.7	-154.07	745.9	322.5	2,271.9	2,249.4	22.45	101.186		
4,000.0	3,551.1	2,827.0	2,685.4	29.6	14.8	-155.04	753.4	324.9	2,302.6	2,280.0	22.59	101.943		
4,100.0	3,633.7	2,884.5	2,738.1	30.4	15.3	-157.28	775.2	332.0	2,384.2	2,361.1	23.05	103.436		
4,200.0	3,719.6	2,946.8	2,795.2	31.2	15.7	-159.06	798.9	339.7	2,462.3	2,438.7	23.65	104.137		
4,300.0	3,808.5	3,013.4	2,856.3	32.0	16.2	-160.47	824.2	347.9	2,536.8	2,512.5	24.30	104.377		
4,400.0	3,900.0	3,084.3	2,921.3	32.6	16.8	-161.59	851.0	356.6	2,607.4	2,582.4	24.98	104.373		
4,500.0	3,993.7	3,159.1	2,989.9	33.2	17.4	-162.48	879.4	365.8	2,673.7	2,648.1	25.64	104.262		
4,600.0	4,089.5	3,237.5	3,061.8	33.7	18.0	-163.18	909.2	375.5	2,735.6	2,709.3	26.27	104.131		
4,700.0	4,186.8	3,319.3	3,136.8	34.1	18.6	-163.72	940.2	385.6	2,792.7	2,765.9	26.84	104.036		
4,800.0	4,285.3	3,404.2	3,214.6	34.4	19.2	-164.13	972.4	396.0	2,845.0	2,817.7	27.35	104.014		
4,900.0	4,384.7	3,491.8	3,294.9	34.6	19.9	-164.42	1,005.7	406.8	2,892.2	2,864.4	27.79	104.087		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 43A-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,484.6	3,581.8	3,377.5	34.7	20.6	-164.60	1,039.8	417.9	2,934.2	2,906.1	28.14	104.272		
5,029.4	4,514.0	3,608.7	3,402.1	34.7	20.8	-2.47	1,050.0	421.2	2,945.6	2,917.3	28.23	104.349		
5,100.0	4,584.6	4,833.3	4,584.6	34.8	25.6	-0.74	1,293.9	500.4	2,969.3	2,937.7	31.58	94.013		
5,200.0	4,684.6	4,933.3	4,684.6	34.8	25.7	-0.74	1,293.9	500.4	2,969.3	2,937.4	31.84	93.268		
5,300.0	4,784.6	5,033.3	4,784.6	34.9	25.7	-0.74	1,293.9	500.4	2,969.3	2,937.2	32.09	92.523		
5,400.0	4,884.6	5,133.3	4,884.6	34.9	25.8	-0.74	1,293.9	500.4	2,969.3	2,936.9	32.35	91.779		
5,500.0	4,984.6	5,233.3	4,984.6	35.0	25.9	-0.74	1,293.9	500.4	2,969.3	2,936.6	32.62	91.034		
5,600.0	5,084.6	5,333.3	5,084.6	35.0	26.0	-0.74	1,293.9	500.4	2,969.3	2,936.4	32.89	90.291		
5,700.0	5,184.6	5,433.3	5,184.6	35.1	26.1	-0.74	1,293.9	500.4	2,969.3	2,936.1	33.16	89.549		
5,800.0	5,284.6	5,533.3	5,284.6	35.2	26.2	-0.74	1,293.9	500.4	2,969.3	2,935.8	33.43	88.809		
5,900.0	5,384.6	5,633.3	5,384.6	35.2	26.3	-0.74	1,293.9	500.4	2,969.3	2,935.6	33.71	88.072		
6,000.0	5,484.6	5,733.3	5,484.6	35.3	26.4	-0.74	1,293.9	500.4	2,969.3	2,935.3	34.00	87.338		
6,100.0	5,584.6	5,833.3	5,584.6	35.4	26.5	-0.74	1,293.9	500.4	2,969.3	2,935.0	34.28	86.607		
6,200.0	5,684.6	5,933.3	5,684.6	35.4	26.6	-0.74	1,293.9	500.4	2,969.3	2,934.7	34.57	85.879		
6,300.0	5,784.6	6,033.3	5,784.6	35.5	26.7	-0.74	1,293.9	500.4	2,969.3	2,934.4	34.87	85.156		
6,400.0	5,884.6	6,133.3	5,884.6	35.6	26.8	-0.74	1,293.9	500.4	2,969.3	2,934.1	35.17	84.437		
6,500.0	5,984.6	6,233.3	5,984.6	35.6	26.9	-0.74	1,293.9	500.4	2,969.3	2,933.8	35.47	83.722		
6,600.0	6,084.6	6,333.3	6,084.6	35.7	27.0	-0.74	1,293.9	500.4	2,969.3	2,933.5	35.77	83.012		
6,700.0	6,184.6	6,433.3	6,184.6	35.8	27.1	-0.74	1,293.9	500.4	2,969.3	2,933.2	36.08	82.307		
6,800.0	6,284.6	6,533.3	6,284.6	35.9	27.2	-0.74	1,293.9	500.4	2,969.3	2,932.9	36.38	81.608		
6,900.0	6,384.6	6,633.3	6,384.6	35.9	27.3	-0.74	1,293.9	500.4	2,969.3	2,932.6	36.70	80.914		
7,000.0	6,484.6	6,733.3	6,484.6	36.0	27.4	-0.74	1,293.9	500.4	2,969.3	2,932.3	37.01	80.225		
7,100.0	6,584.6	6,833.3	6,584.6	36.1	27.5	-0.74	1,293.9	500.4	2,969.3	2,931.9	37.33	79.543		
7,200.0	6,684.6	6,933.3	6,684.6	36.2	27.6	-0.74	1,293.9	500.4	2,969.3	2,931.6	37.65	78.866		
7,300.0	6,784.6	7,033.3	6,784.6	36.2	27.7	-0.74	1,293.9	500.4	2,969.3	2,931.3	37.97	78.195		
7,400.0	6,884.6	7,133.3	6,884.6	36.3	27.8	-0.74	1,293.9	500.4	2,969.3	2,931.0	38.30	77.531		
7,500.0	6,984.6	7,233.3	6,984.6	36.4	28.0	-0.74	1,293.9	500.4	2,969.3	2,930.6	38.63	76.873		
7,600.0	7,084.6	7,333.3	7,084.6	36.5	28.1	-0.74	1,293.9	500.4	2,969.3	2,930.3	38.96	76.221		
7,662.3	7,146.9	7,395.6	7,146.9	36.6	28.1	-0.74	1,293.9	500.4	2,969.3	2,930.1	39.16	75.818		
7,700.0	7,184.6	7,421.7	7,173.0	36.6	28.2	-0.74	1,293.9	500.4	2,969.3	2,930.0	39.27	75.616		
7,800.0	7,284.6	7,421.7	7,173.0	36.7	28.2	-0.74	1,293.9	500.4	2,971.4	2,931.9	39.42	75.370		
7,813.4	7,298.0	7,421.7	7,173.0	36.7	28.2	-0.74	1,293.9	500.4	2,971.9	2,932.5	39.44	75.343		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 43B-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	48.9	87.2	100.0					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	48.9	87.2	100.0	99.8	0.19	525.745		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	48.9	87.2	100.0	99.3	0.64	156.283		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	48.9	87.2	100.0	98.9	1.09	91.783		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	48.9	87.2	100.0	98.4	1.54	64.969		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	48.9	87.2	100.0	98.0	1.99	50.280		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	48.9	87.2	100.0	97.5	2.44	41.009		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	48.9	87.2	100.0	97.1	2.89	34.624 CC, ES		
800.0	800.0	795.9	795.8	1.7	1.7	59.94	51.0	88.2	102.0	98.7	3.33	30.669		
900.0	900.0	891.3	890.9	1.9	1.9	57.74	57.6	91.2	108.2	104.5	3.77	28.716		
1,000.0	1,000.0	985.7	984.6	2.1	2.1	54.61	68.3	96.1	118.9	114.6	4.22	28.147 SF		
1,100.0	1,100.0	1,078.7	1,076.3	2.3	2.4	51.10	82.9	102.8	134.2	129.5	4.69	28.586		
1,200.0	1,199.9	1,169.4	1,164.7	2.5	2.7	-114.75	101.1	111.1	155.5	150.4	5.13	30.328		
1,300.0	1,299.5	1,256.3	1,248.5	2.7	3.0	-119.06	122.1	120.6	184.8	179.2	5.55	33.299		
1,400.0	1,398.3	1,342.5	1,330.6	2.9	3.4	-123.30	145.9	131.5	222.1	216.1	5.98	37.145		
1,500.0	1,496.0	1,430.6	1,414.3	3.2	3.9	-127.16	170.7	142.8	264.9	258.4	6.42	41.238		
1,600.0	1,592.3	1,515.8	1,495.4	3.6	4.3	-130.35	194.8	153.8	312.6	305.7	6.88	45.459		
1,700.0	1,686.7	1,598.0	1,573.5	4.0	4.8	-132.93	218.0	164.4	365.2	357.8	7.36	49.604		
1,800.0	1,778.9	1,676.8	1,648.4	4.6	5.2	-134.97	240.2	174.6	422.6	414.7	7.88	53.618		
1,900.0	1,868.5	1,751.9	1,719.8	5.3	5.7	-136.51	261.4	184.2	484.6	476.2	8.44	57.423		
2,000.0	1,955.3	1,823.1	1,787.5	6.1	6.1	-137.60	281.5	193.4	551.1	542.1	9.05	60.912		
2,100.0	2,039.0	1,890.0	1,851.1	7.1	6.5	-138.23	300.4	202.0	621.8	612.1	9.72	63.976		
2,166.2	2,092.4	1,931.8	1,890.9	7.8	6.7	-138.41	312.2	207.4	670.8	660.6	10.21	65.708		
2,200.0	2,119.3	1,952.7	1,910.7	8.1	6.8	-139.32	318.1	210.1	696.3	685.9	10.43	66.731		
2,300.0	2,198.8	2,014.4	1,969.4	9.3	7.2	-141.70	335.5	218.0	772.2	761.1	11.11	69.531		
2,400.0	2,278.3	2,076.2	2,028.1	10.4	7.6	-143.68	352.9	226.0	848.5	836.7	11.78	72.022		
2,500.0	2,357.9	2,137.9	2,086.7	11.6	7.9	-145.36	370.3	233.9	925.3	912.8	12.46	74.254		
2,600.0	2,437.4	2,199.6	2,145.4	12.8	8.3	-146.80	387.7	241.9	1,002.3	989.2	13.14	76.266		
2,700.0	2,516.9	2,261.3	2,204.1	13.9	8.7	-148.04	405.1	249.8	1,079.6	1,065.8	13.83	78.073		
2,800.0	2,596.5	2,323.0	2,262.8	15.1	9.0	-149.13	422.5	257.8	1,157.1	1,142.6	14.52	79.713		
2,900.0	2,676.0	2,384.7	2,321.4	16.3	9.4	-150.08	439.9	265.7	1,234.7	1,219.5	15.21	81.202		
3,000.0	2,755.5	2,446.5	2,380.1	17.5	9.8	-150.93	457.4	273.7	1,312.5	1,296.6	15.90	82.556		
3,100.0	2,835.1	2,508.2	2,438.8	18.7	10.2	-151.68	474.8	281.6	1,390.4	1,373.8	16.59	83.795		
3,200.0	2,914.6	2,569.9	2,497.5	19.9	10.5	-152.36	492.2	289.6	1,468.3	1,451.0	17.29	84.927		
3,300.0	2,994.1	2,631.6	2,556.1	21.1	10.9	-152.97	509.6	297.5	1,546.3	1,528.3	17.99	85.968		
3,400.0	3,073.7	2,693.3	2,614.8	22.3	11.3	-153.52	527.0	305.5	1,624.4	1,605.7	18.69	86.927		
3,500.0	3,153.2	2,755.0	2,673.5	23.5	11.7	-154.03	544.4	313.4	1,702.6	1,683.2	19.39	87.809		
3,600.0	3,232.7	2,816.8	2,732.2	24.8	12.0	-154.49	561.8	321.4	1,780.8	1,760.7	20.09	88.627		
3,700.0	3,312.2	2,878.5	2,790.8	26.0	12.4	-154.91	579.2	329.3	1,859.0	1,838.2	20.80	89.385		
3,800.0	3,391.8	2,940.2	2,849.5	27.2	12.8	-155.30	596.7	337.3	1,937.2	1,915.7	21.50	90.088		
3,900.0	3,471.3	3,001.9	2,908.2	28.4	13.2	-155.66	614.1	345.2	2,015.5	1,993.3	22.21	90.743		
3,963.3	3,521.6	3,041.0	2,945.3	29.2	13.4	-155.87	625.1	350.2	2,065.1	2,042.4	22.66	91.134		
4,000.0	3,551.1	3,063.9	2,967.1	29.6	13.5	-156.62	631.6	353.2	2,093.6	2,070.7	22.90	91.445		
4,100.0	3,633.7	3,129.6	3,029.5	30.4	13.9	-158.38	650.1	361.7	2,168.9	2,145.3	23.56	92.064		
4,200.0	3,719.6	3,199.5	3,096.0	31.2	14.4	-159.78	669.8	370.7	2,240.2	2,216.0	24.28	92.282		
4,300.0	3,808.5	3,273.5	3,166.4	32.0	14.8	-160.89	690.7	380.2	2,307.5	2,282.5	25.01	92.269		
4,400.0	3,900.0	3,351.2	3,240.3	32.6	15.3	-161.78	712.6	390.2	2,370.3	2,344.6	25.73	92.141		
4,500.0	3,993.7	3,432.5	3,317.5	33.2	15.8	-162.47	735.5	400.7	2,428.6	2,402.2	26.41	91.972		
4,600.0	4,089.5	3,516.9	3,397.7	33.7	16.3	-163.00	759.3	411.5	2,482.0	2,455.0	27.03	91.811		
4,700.0	4,186.8	3,604.1	3,480.7	34.1	16.8	-163.40	784.0	422.8	2,530.4	2,502.9	27.60	91.692		
4,800.0	4,285.3	3,693.9	3,566.0	34.4	17.4	-163.67	809.3	434.3	2,573.7	2,545.6	28.09	91.637		
4,900.0	4,384.7	3,785.9	3,653.5	34.6	17.9	-163.84	835.2	446.2	2,611.6	2,583.1	28.49	91.600		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 43B-11-06-92 - Wellbore #1 - Design #1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,484.6	4,634.4	4,484.6	34.7	20.7	-162.90	964.0	505.0	2,639.1	2,608.5	30.63	86.168	
5,029.4	4,514.0	4,663.9	4,514.0	34.7	20.8	-0.73	964.0	505.0	2,639.3	2,608.7	30.65	86.113	
5,100.0	4,584.6	4,734.4	4,584.6	34.8	20.8	-0.73	964.0	505.0	2,639.3	2,608.5	30.83	85.602	
5,200.0	4,684.6	4,834.4	4,684.6	34.8	20.9	-0.73	964.0	505.0	2,639.3	2,608.2	31.10	84.874	
5,300.0	4,784.6	4,934.4	4,784.6	34.9	21.0	-0.73	964.0	505.0	2,639.3	2,608.0	31.37	84.148	
5,400.0	4,884.6	5,034.4	4,884.6	34.9	21.1	-0.73	964.0	505.0	2,639.3	2,607.7	31.64	83.424	
5,500.0	4,984.6	5,134.4	4,984.6	35.0	21.3	-0.73	964.0	505.0	2,639.3	2,607.4	31.91	82.702	
5,600.0	5,084.6	5,234.4	5,084.6	35.0	21.4	-0.73	964.0	505.0	2,639.3	2,607.1	32.19	81.983	
5,700.0	5,184.6	5,334.4	5,184.6	35.1	21.5	-0.73	964.0	505.0	2,639.3	2,606.9	32.48	81.266	
5,800.0	5,284.6	5,434.4	5,284.6	35.2	21.6	-0.73	964.0	505.0	2,639.3	2,606.6	32.77	80.553	
5,900.0	5,384.6	5,534.4	5,384.6	35.2	21.7	-0.73	964.0	505.0	2,639.3	2,606.3	33.06	79.844	
6,000.0	5,484.6	5,634.4	5,484.6	35.3	21.8	-0.73	964.0	505.0	2,639.3	2,606.0	33.35	79.140	
6,100.0	5,584.6	5,734.4	5,584.6	35.4	21.9	-0.73	964.0	505.0	2,639.3	2,605.7	33.65	78.439	
6,200.0	5,684.6	5,834.4	5,684.6	35.4	22.1	-0.73	964.0	505.0	2,639.3	2,605.4	33.95	77.744	
6,300.0	5,784.6	5,934.4	5,784.6	35.5	22.2	-0.73	964.0	505.0	2,639.3	2,605.1	34.25	77.054	
6,400.0	5,884.6	6,034.4	5,884.6	35.6	22.3	-0.73	964.0	505.0	2,639.3	2,604.8	34.56	76.369	
6,500.0	5,984.6	6,134.4	5,984.6	35.6	22.4	-0.73	964.0	505.0	2,639.3	2,604.5	34.87	75.689	
6,600.0	6,084.6	6,234.4	6,084.6	35.7	22.5	-0.73	964.0	505.0	2,639.3	2,604.2	35.18	75.015	
6,700.0	6,184.6	6,334.4	6,184.6	35.8	22.7	-0.73	964.0	505.0	2,639.3	2,603.8	35.50	74.347	
6,800.0	6,284.6	6,434.4	6,284.6	35.9	22.8	-0.73	964.0	505.0	2,639.3	2,603.5	35.82	73.685	
6,900.0	6,384.6	6,534.4	6,384.6	35.9	22.9	-0.73	964.0	505.0	2,639.3	2,603.2	36.14	73.030	
7,000.0	6,484.6	6,634.4	6,484.6	36.0	23.1	-0.73	964.0	505.0	2,639.3	2,602.9	36.46	72.380	
7,100.0	6,584.6	6,734.4	6,584.6	36.1	23.2	-0.73	964.0	505.0	2,639.3	2,602.5	36.79	71.738	
7,200.0	6,684.6	6,834.4	6,684.6	36.2	23.3	-0.73	964.0	505.0	2,639.3	2,602.2	37.12	71.101	
7,300.0	6,784.6	6,934.4	6,784.6	36.2	23.5	-0.73	964.0	505.0	2,639.3	2,601.9	37.45	70.471	
7,400.0	6,884.6	7,034.4	6,884.6	36.3	23.6	-0.73	964.0	505.0	2,639.3	2,601.6	37.79	69.848	
7,500.0	6,984.6	7,134.4	6,984.6	36.4	23.7	-0.73	964.0	505.0	2,639.3	2,601.2	38.12	69.232	
7,600.0	7,084.6	7,234.4	7,084.6	36.5	23.9	-0.73	964.0	505.0	2,639.3	2,600.9	38.46	68.622	
7,663.1	7,147.7	7,297.6	7,147.7	36.6	24.0	-0.73	964.0	505.0	2,639.3	2,600.7	38.68	68.240	
7,700.0	7,184.6	7,324.9	7,175.0	36.6	24.0	-0.73	964.0	505.0	2,639.4	2,600.6	38.79	68.051	
7,800.0	7,284.6	7,324.9	7,175.0	36.7	24.0	-0.73	964.0	505.0	2,641.6	2,602.7	38.94	67.836	
7,813.4	7,298.0	7,324.9	7,175.0	36.7	24.0	-0.73	964.0	505.0	2,642.2	2,603.2	38.96	67.815	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 43C-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	42.8	76.3	87.5					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	42.8	76.3	87.5	87.3	0.19	460.025		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	42.8	76.3	87.5	86.8	0.64	136.747		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	42.8	76.3	87.5	86.4	1.09	80.310		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	42.8	76.3	87.5	85.9	1.54	56.848		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	42.8	76.3	87.5	85.5	1.99	43.995		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	42.8	76.3	87.5	85.0	2.44	35.883		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	42.8	76.3	87.5	84.6	2.89	30.296		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	42.8	76.3	87.5	84.1	3.34	26.215		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	42.8	76.3	87.5	83.7	3.79	23.102 CC, ES		
1,000.0	1,000.0	995.9	995.9	2.1	2.1	60.10	44.7	77.7	89.8	85.5	4.22	21.251		
1,100.0	1,100.0	1,091.4	1,091.0	2.3	2.3	58.38	50.5	82.0	96.7	92.0	4.66	20.733 SF		
1,200.0	1,199.9	1,185.5	1,184.5	2.5	2.6	-107.21	59.9	88.9	109.2	104.1	5.09	21.472		
1,300.0	1,299.5	1,277.2	1,274.7	2.7	2.8	-112.49	72.7	98.3	129.1	123.6	5.49	23.490		
1,400.0	1,398.3	1,366.4	1,361.8	2.9	3.1	-118.02	88.4	109.8	157.2	151.3	5.93	26.525		
1,500.0	1,496.0	1,458.5	1,451.4	3.2	3.4	-123.26	105.7	122.5	191.5	185.1	6.38	30.029		
1,600.0	1,592.3	1,548.4	1,538.7	3.6	3.8	-127.68	122.7	134.8	230.8	224.0	6.85	33.705		
1,700.0	1,686.7	1,635.6	1,623.6	4.0	4.1	-131.35	139.1	146.9	275.2	267.9	7.34	37.472		
1,800.0	1,778.9	1,720.0	1,705.6	4.6	4.5	-134.34	155.0	158.5	324.7	316.8	7.88	41.206		
1,900.0	1,868.5	1,801.1	1,784.5	5.3	4.8	-136.73	170.2	169.7	379.1	370.7	8.44	44.929		
2,000.0	1,955.3	1,878.7	1,860.0	6.1	5.2	-138.58	184.8	180.4	438.5	429.4	9.03	48.531		
2,100.0	2,039.0	1,952.5	1,931.8	7.1	5.5	-139.95	198.7	190.6	502.4	492.8	9.67	51.969		
2,166.2	2,092.4	1,999.1	1,977.1	7.8	5.7	-140.61	207.5	197.0	547.2	537.1	10.11	54.121		
2,200.0	2,119.3	2,022.5	1,999.8	8.1	5.8	-141.58	211.9	200.2	570.6	560.3	10.34	55.174		
2,300.0	2,198.8	2,091.5	2,066.9	9.3	6.1	-144.05	224.9	209.7	640.3	629.3	11.03	58.059		
2,400.0	2,278.3	2,160.6	2,134.0	10.4	6.4	-146.07	237.9	219.2	710.5	698.8	11.72	60.617		
2,500.0	2,357.9	2,229.6	2,201.2	11.6	6.8	-147.74	250.9	228.8	781.1	768.7	12.42	62.902		
2,600.0	2,437.4	2,298.6	2,268.3	12.8	7.1	-149.14	263.9	238.3	852.0	838.9	13.12	64.947		
2,700.0	2,516.9	2,367.7	2,335.4	13.9	7.4	-150.34	276.9	247.8	923.1	909.3	13.82	66.779		
2,800.0	2,596.5	2,436.7	2,402.5	15.1	7.7	-151.37	289.9	257.3	994.4	979.9	14.53	68.431		
2,900.0	2,676.0	2,505.7	2,469.7	16.3	8.0	-152.27	302.9	266.8	1,065.9	1,050.6	15.24	69.925		
3,000.0	2,755.5	2,574.8	2,536.8	17.5	8.4	-153.05	315.8	276.4	1,137.4	1,121.5	15.96	71.278		
3,100.0	2,835.1	2,643.8	2,603.9	18.7	8.7	-153.75	328.8	285.9	1,209.1	1,192.4	16.68	72.509		
3,200.0	2,914.6	2,712.8	2,671.1	19.9	9.0	-154.37	341.8	295.4	1,280.8	1,263.4	17.39	73.634		
3,300.0	2,994.1	2,781.9	2,738.2	21.1	9.3	-154.92	354.8	304.9	1,352.6	1,334.5	18.12	74.663		
3,400.0	3,073.7	2,850.9	2,805.3	22.3	9.7	-155.42	367.8	314.4	1,424.5	1,405.6	18.84	75.607		
3,500.0	3,153.2	2,919.9	2,872.4	23.5	10.0	-155.87	380.8	323.9	1,496.4	1,476.8	19.57	76.477		
3,600.0	3,232.7	2,988.9	2,939.6	24.8	10.3	-156.28	393.8	333.5	1,568.3	1,548.0	20.29	77.280		
3,700.0	3,312.2	3,058.0	3,006.7	26.0	10.6	-156.66	406.8	343.0	1,640.3	1,619.3	21.02	78.022		
3,800.0	3,391.8	3,127.0	3,073.8	27.2	11.0	-157.00	419.8	352.5	1,712.3	1,690.6	21.75	78.710		
3,900.0	3,471.3	3,196.0	3,140.9	28.4	11.3	-157.32	432.8	362.0	1,784.3	1,761.9	22.49	79.350		
3,963.3	3,521.6	3,239.7	3,183.4	29.2	11.5	-157.51	441.0	368.0	1,829.9	1,807.0	22.95	79.731		
4,000.0	3,551.1	3,265.4	3,208.3	29.6	11.6	-158.10	445.8	371.6	1,856.1	1,832.9	23.23	79.894		
4,100.0	3,633.7	3,338.0	3,279.0	30.4	12.0	-159.48	459.5	381.6	1,924.7	1,900.7	23.99	80.234		
4,200.0	3,719.6	3,414.5	3,353.4	31.2	12.4	-160.58	473.9	392.1	1,989.0	1,964.3	24.76	80.332		
4,300.0	3,808.5	3,494.6	3,431.3	32.0	12.7	-161.45	489.0	403.2	2,048.8	2,023.3	25.52	80.282		
4,400.0	3,900.0	3,578.1	3,512.4	32.6	13.1	-162.12	504.7	414.7	2,103.9	2,077.6	26.25	80.153		
4,500.0	3,993.7	3,664.5	3,596.5	33.2	13.6	-162.63	521.0	426.6	2,154.0	2,127.1	26.93	79.990		
4,600.0	4,089.5	3,753.7	3,683.2	33.7	14.0	-163.00	537.7	438.9	2,199.0	2,171.4	27.55	79.826		
4,700.0	4,186.8	3,845.1	3,772.1	34.1	14.4	-163.24	555.0	451.5	2,238.7	2,210.6	28.10	79.681		
4,800.0	4,285.3	3,938.6	3,863.0	34.4	14.9	-163.37	572.6	464.4	2,273.0	2,244.5	28.57	79.570		
4,900.0	4,384.7	4,033.8	3,955.6	34.6	15.3	-163.39	590.5	477.5	2,301.9	2,272.9	28.95	79.502		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,484.6	4,567.1	4,484.6	34.7	16.6	-162.89	634.1	509.5	2,309.2	2,279.1	30.08	76.779		
5,029.4	4,514.0	4,596.5	4,514.0	34.7	16.6	-0.72	634.1	509.5	2,309.4	2,279.3	30.08	76.765		
5,100.0	4,584.6	4,667.1	4,584.6	34.8	16.7	-0.72	634.1	509.5	2,309.4	2,279.2	30.27	76.283		
5,200.0	4,684.6	4,767.1	4,684.6	34.8	16.8	-0.72	634.1	509.5	2,309.4	2,278.9	30.55	75.599		
5,300.0	4,784.6	4,867.1	4,784.6	34.9	17.0	-0.72	634.1	509.5	2,309.4	2,278.6	30.83	74.917		
5,400.0	4,884.6	4,967.1	4,884.6	34.9	17.1	-0.72	634.1	509.5	2,309.4	2,278.3	31.11	74.238		
5,500.0	4,984.6	5,067.1	4,984.6	35.0	17.2	-0.72	634.1	509.5	2,309.4	2,278.0	31.39	73.563		
5,600.0	5,084.6	5,167.1	5,084.6	35.0	17.4	-0.72	634.1	509.5	2,309.4	2,277.7	31.68	72.891		
5,700.0	5,184.6	5,267.1	5,184.6	35.1	17.5	-0.72	634.1	509.5	2,309.4	2,277.4	31.98	72.224		
5,800.0	5,284.6	5,367.1	5,284.6	35.2	17.7	-0.72	634.1	509.5	2,309.4	2,277.2	32.27	71.561		
5,900.0	5,384.6	5,467.1	5,384.6	35.2	17.8	-0.72	634.1	509.5	2,309.4	2,276.9	32.57	70.902		
6,000.0	5,484.6	5,567.1	5,484.6	35.3	18.0	-0.72	634.1	509.5	2,309.4	2,276.6	32.87	70.249		
6,100.0	5,584.6	5,667.1	5,584.6	35.4	18.1	-0.72	634.1	509.5	2,309.4	2,276.2	33.18	69.601		
6,200.0	5,684.6	5,767.1	5,684.6	35.4	18.2	-0.72	634.1	509.5	2,309.4	2,275.9	33.49	68.958		
6,300.0	5,784.6	5,867.1	5,784.6	35.5	18.4	-0.72	634.1	509.5	2,309.4	2,275.6	33.80	68.321		
6,400.0	5,884.6	5,967.1	5,884.6	35.6	18.5	-0.72	634.1	509.5	2,309.4	2,275.3	34.12	67.689		
6,500.0	5,984.6	6,067.1	5,984.6	35.6	18.7	-0.72	634.1	509.5	2,309.4	2,275.0	34.44	67.064		
6,600.0	6,084.6	6,167.1	6,084.6	35.7	18.9	-0.72	634.1	509.5	2,309.4	2,274.7	34.76	66.445		
6,700.0	6,184.6	6,267.1	6,184.6	35.8	19.0	-0.72	634.1	509.5	2,309.4	2,274.3	35.08	65.832		
6,800.0	6,284.6	6,367.1	6,284.6	35.9	19.2	-0.72	634.1	509.5	2,309.4	2,274.0	35.41	65.225		
6,900.0	6,384.6	6,467.1	6,384.6	35.9	19.3	-0.72	634.1	509.5	2,309.4	2,273.7	35.74	64.625		
7,000.0	6,484.6	6,567.1	6,484.6	36.0	19.5	-0.72	634.1	509.5	2,309.4	2,273.4	36.07	64.031		
7,100.0	6,584.6	6,667.1	6,584.6	36.1	19.6	-0.72	634.1	509.5	2,309.4	2,273.0	36.40	63.444		
7,200.0	6,684.6	6,767.1	6,684.6	36.2	19.8	-0.72	634.1	509.5	2,309.4	2,272.7	36.74	62.863		
7,300.0	6,784.6	6,867.1	6,784.6	36.2	20.0	-0.72	634.1	509.5	2,309.4	2,272.3	37.08	62.289		
7,400.0	6,884.6	6,967.1	6,884.6	36.3	20.1	-0.72	634.1	509.5	2,309.4	2,272.0	37.42	61.721		
7,500.0	6,984.6	7,067.1	6,984.6	36.4	20.3	-0.72	634.1	509.5	2,309.4	2,271.7	37.76	61.161		
7,600.0	7,084.6	7,167.1	7,084.6	36.5	20.5	-0.72	634.1	509.5	2,309.4	2,271.3	38.11	60.607		
7,700.0	7,184.6	7,267.1	7,184.6	36.6	20.6	-0.72	634.1	509.5	2,309.4	2,271.0	38.45	60.060		
7,800.0	7,284.6	7,273.5	7,191.0	36.7	20.6	-0.72	634.1	509.5	2,311.3	2,272.7	38.62	59.847		
7,813.4	7,298.0	7,273.5	7,191.0	36.7	20.6	-0.72	634.1	509.5	2,311.9	2,273.3	38.64	59.829		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference				Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	36.6	65.4	75.0					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	36.6	65.4	75.0	74.8	0.19	394.317		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	36.6	65.4	75.0	74.3	0.64	117.215		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	36.6	65.4	75.0	73.9	1.09	68.839		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	36.6	65.4	75.0	73.4	1.54	48.728		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	36.6	65.4	75.0	73.0	1.99	37.711		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	36.6	65.4	75.0	72.5	2.44	30.757		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	36.6	65.4	75.0	72.1	2.89	25.969		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	36.6	65.4	75.0	71.6	3.34	22.470		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	36.6	65.4	75.0	71.2	3.79	19.802		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	60.74	36.6	65.4	75.0	70.7	4.24	17.701		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	60.74	36.6	65.4	75.0	70.3	4.69	16.003 CC, ES		
1,200.0	1,199.9	1,196.0	1,196.0	2.5	2.6	-103.48	37.9	67.5	78.2	73.1	5.09	15.347 SF		
1,300.0	1,299.5	1,291.1	1,290.7	2.7	2.8	-108.64	41.5	73.6	88.2	82.7	5.49	16.084		
1,400.0	1,398.3	1,384.1	1,383.0	2.9	3.0	-114.79	47.4	83.5	106.2	100.3	5.91	17.981		
1,500.0	1,496.0	1,476.9	1,474.6	3.2	3.2	-120.55	55.4	96.8	132.3	125.9	6.37	20.757		
1,600.0	1,592.3	1,570.7	1,566.9	3.6	3.5	-125.82	63.6	110.7	163.5	156.6	6.86	23.826		
1,700.0	1,686.7	1,662.4	1,657.2	4.0	3.8	-130.36	71.8	124.3	199.7	192.3	7.38	27.044		
1,800.0	1,778.9	1,751.7	1,745.2	4.6	4.1	-134.17	79.7	137.5	240.9	233.0	7.93	30.386		
1,900.0	1,868.5	1,838.3	1,830.5	5.3	4.3	-137.31	87.3	150.3	287.4	278.9	8.51	33.792		
2,000.0	1,955.3	1,921.9	1,912.9	6.1	4.6	-139.83	94.7	162.7	339.0	329.9	9.10	37.245		
2,100.0	2,039.0	2,002.1	1,991.9	7.1	4.9	-141.83	101.8	174.6	395.5	385.8	9.72	40.698		
2,166.2	2,092.4	2,053.2	2,042.2	7.8	5.1	-142.89	106.3	182.2	435.6	425.4	10.14	42.947		
2,200.0	2,119.3	2,078.9	2,067.6	8.1	5.2	-143.90	108.6	186.0	456.6	446.3	10.37	44.018		
2,300.0	2,198.8	2,154.9	2,142.4	9.3	5.4	-146.43	115.3	197.3	519.3	508.3	11.07	46.927		
2,400.0	2,278.3	2,230.9	2,217.3	10.4	5.7	-148.43	122.0	208.5	582.6	570.8	11.77	49.498		
2,500.0	2,357.9	2,306.9	2,292.1	11.6	6.0	-150.05	128.7	219.8	646.1	633.6	12.48	51.777		
2,600.0	2,437.4	2,382.9	2,366.9	12.8	6.3	-151.39	135.4	231.0	709.9	696.7	13.20	53.800		
2,700.0	2,516.9	2,458.9	2,441.8	13.9	6.5	-152.51	142.2	242.3	774.0	760.0	13.92	55.604		
2,800.0	2,596.5	2,534.9	2,516.6	15.1	6.8	-153.47	148.9	253.6	838.1	823.5	14.65	57.221		
2,900.0	2,676.0	2,610.8	2,591.5	16.3	7.1	-154.29	155.6	264.8	902.4	887.1	15.38	58.676		
3,000.0	2,755.5	2,686.8	2,666.3	17.5	7.4	-155.00	162.3	276.1	966.8	950.7	16.12	59.988		
3,100.0	2,835.1	2,762.8	2,741.2	18.7	7.7	-155.62	169.0	287.3	1,031.3	1,014.4	16.86	61.176		
3,200.0	2,914.6	2,838.8	2,816.0	19.9	8.0	-156.17	175.7	298.6	1,095.8	1,078.2	17.60	62.257		
3,300.0	2,994.1	2,914.8	2,890.9	21.1	8.2	-156.67	182.5	309.8	1,160.4	1,142.1	18.35	63.243		
3,400.0	3,073.7	2,990.8	2,965.7	22.3	8.5	-157.10	189.2	321.1	1,225.0	1,205.9	19.10	64.145		
3,500.0	3,153.2	3,066.8	3,040.6	23.5	8.8	-157.50	195.9	332.4	1,289.7	1,269.8	19.85	64.972		
3,600.0	3,232.7	3,142.7	3,115.4	24.8	9.1	-157.86	202.6	343.6	1,354.4	1,333.8	20.60	65.734		
3,700.0	3,312.2	3,218.7	3,190.3	26.0	9.4	-158.18	209.3	354.9	1,419.1	1,397.8	21.36	66.438		
3,800.0	3,391.8	3,294.7	3,265.1	27.2	9.7	-158.48	216.0	366.1	1,483.9	1,461.8	22.12	67.089		
3,900.0	3,471.3	3,370.7	3,340.0	28.4	10.0	-158.76	222.8	377.4	1,548.6	1,525.8	22.88	67.693		
3,963.3	3,521.6	3,418.8	3,387.3	29.2	10.2	-158.92	227.0	384.5	1,589.6	1,566.3	23.36	68.052		
4,000.0	3,551.1	3,447.0	3,415.1	29.6	10.3	-159.38	229.5	388.7	1,613.1	1,589.5	23.67	68.162		
4,100.0	3,633.7	3,526.1	3,493.1	30.4	10.6	-160.46	236.5	400.4	1,674.1	1,649.6	24.48	68.391		
4,200.0	3,719.6	3,608.8	3,574.5	31.2	10.9	-161.29	243.8	412.7	1,730.4	1,705.1	25.29	68.431		
4,300.0	3,808.5	3,694.5	3,658.9	32.0	11.2	-161.94	251.4	425.4	1,781.8	1,755.7	26.07	68.346		
4,400.0	3,900.0	3,783.1	3,746.2	32.6	11.6	-162.41	259.2	438.5	1,828.1	1,801.3	26.81	68.182		
4,500.0	3,993.7	3,874.1	3,835.8	33.2	11.9	-162.73	267.2	452.0	1,869.2	1,841.7	27.50	67.968		
4,600.0	4,089.5	3,967.3	3,927.6	33.7	12.3	-162.93	275.5	465.8	1,905.0	1,876.9	28.13	67.728		
4,700.0	4,186.8	4,062.3	4,021.1	34.1	12.6	-163.01	283.9	479.9	1,935.3	1,906.6	28.68	67.474		
4,800.0	4,285.3	4,192.5	4,149.6	34.4	13.1	-162.89	294.8	498.2	1,959.7	1,930.4	29.26	66.975		
4,900.0	4,384.7	4,396.8	4,353.1	34.6	13.5	-162.80	303.7	513.2	1,974.4	1,944.7	29.71	66.446		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,484.6	4,528.3	4,484.6	34.7	13.7	-162.88	304.2	514.0	1,979.3	1,949.5	29.80	66.427		
5,029.4	4,514.0	4,557.7	4,514.0	34.7	13.8	-0.71	304.2	514.0	1,979.5	1,949.7	29.79	66.440		
5,100.0	4,584.6	4,628.3	4,584.6	34.8	13.9	-0.71	304.2	514.0	1,979.5	1,949.5	29.99	66.013		
5,200.0	4,684.6	4,728.3	4,684.6	34.8	14.0	-0.71	304.2	514.0	1,979.5	1,949.2	30.26	65.407		
5,300.0	4,784.6	4,828.3	4,784.6	34.9	14.2	-0.71	304.2	514.0	1,979.5	1,949.0	30.55	64.804		
5,400.0	4,884.6	4,928.3	4,884.6	34.9	14.4	-0.71	304.2	514.0	1,979.5	1,948.7	30.83	64.204		
5,500.0	4,984.6	5,028.3	4,984.6	35.0	14.5	-0.71	304.2	514.0	1,979.5	1,948.4	31.12	63.608		
5,600.0	5,084.6	5,128.3	5,084.6	35.0	14.7	-0.71	304.2	514.0	1,979.5	1,948.1	31.41	63.015		
5,700.0	5,184.6	5,228.3	5,184.6	35.1	14.9	-0.71	304.2	514.0	1,979.5	1,947.8	31.71	62.426		
5,800.0	5,284.6	5,328.3	5,284.6	35.2	15.0	-0.71	304.2	514.0	1,979.5	1,947.5	32.01	61.842		
5,900.0	5,384.6	5,428.3	5,384.6	35.2	15.2	-0.71	304.2	514.0	1,979.5	1,947.2	32.31	61.262		
6,000.0	5,484.6	5,528.3	5,484.6	35.3	15.4	-0.71	304.2	514.0	1,979.5	1,946.9	32.62	60.687		
6,100.0	5,584.6	5,628.3	5,584.6	35.4	15.5	-0.71	304.2	514.0	1,979.5	1,946.6	32.93	60.117		
6,200.0	5,684.6	5,728.3	5,684.6	35.4	15.7	-0.71	304.2	514.0	1,979.5	1,946.3	33.24	59.552		
6,300.0	5,784.6	5,828.3	5,784.6	35.5	15.9	-0.71	304.2	514.0	1,979.5	1,945.9	33.56	58.992		
6,400.0	5,884.6	5,928.3	5,884.6	35.6	16.1	-0.71	304.2	514.0	1,979.5	1,945.6	33.87	58.437		
6,500.0	5,984.6	6,028.3	5,984.6	35.6	16.2	-0.71	304.2	514.0	1,979.5	1,945.3	34.20	57.889		
6,600.0	6,084.6	6,128.3	6,084.6	35.7	16.4	-0.71	304.2	514.0	1,979.5	1,945.0	34.52	57.345		
6,700.0	6,184.6	6,228.3	6,184.6	35.8	16.6	-0.71	304.2	514.0	1,979.5	1,944.7	34.85	56.808		
6,800.0	6,284.6	6,328.3	6,284.6	35.9	16.8	-0.71	304.2	514.0	1,979.5	1,944.3	35.17	56.276		
6,900.0	6,384.6	6,428.3	6,384.6	35.9	17.0	-0.71	304.2	514.0	1,979.5	1,944.0	35.51	55.751		
7,000.0	6,484.6	6,528.3	6,484.6	36.0	17.1	-0.71	304.2	514.0	1,979.5	1,943.7	35.84	55.231		
7,100.0	6,584.6	6,628.3	6,584.6	36.1	17.3	-0.71	304.2	514.0	1,979.5	1,943.3	36.18	54.717		
7,200.0	6,684.6	6,728.3	6,684.6	36.2	17.5	-0.71	304.2	514.0	1,979.5	1,943.0	36.52	54.209		
7,300.0	6,784.6	6,828.3	6,784.6	36.2	17.7	-0.71	304.2	514.0	1,979.5	1,942.6	36.86	53.708		
7,400.0	6,884.6	6,928.3	6,884.6	36.3	17.9	-0.71	304.2	514.0	1,979.5	1,942.3	37.20	53.212		
7,500.0	6,984.6	7,028.3	6,984.6	36.4	18.1	-0.71	304.2	514.0	1,979.5	1,942.0	37.55	52.722		
7,600.0	7,084.6	7,128.3	7,084.6	36.5	18.3	-0.71	304.2	514.0	1,979.5	1,941.6	37.89	52.239		
7,700.0	7,184.6	7,228.3	7,184.6	36.6	18.4	-0.71	304.2	514.0	1,979.5	1,941.3	38.24	51.761		
7,800.0	7,284.6	7,241.7	7,198.0	36.7	18.5	-0.71	304.2	514.0	1,981.4	1,943.0	38.43	51.565		
7,813.4	7,298.0	7,241.7	7,198.0	36.7	18.5	-0.71	304.2	514.0	1,982.0	1,943.6	38.45	51.553		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 44A-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	30.5	54.5	62.5					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	30.5	54.5	62.5	62.3	0.19	328.587		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	30.5	54.5	62.5	61.8	0.64	97.676		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	30.5	54.5	62.5	61.4	1.09	57.364		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	30.5	54.5	62.5	60.9	1.54	40.605		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	30.5	54.5	62.5	60.5	1.99	31.425		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	30.5	54.5	62.5	60.0	2.44	25.630		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	30.5	54.5	62.5	59.6	2.89	21.640		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	30.5	54.5	62.5	59.1	3.34	18.725		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	30.5	54.5	62.5	58.7	3.79	16.502		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	60.74	30.5	54.5	62.5	58.2	4.24	14.750		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	60.74	30.5	54.5	62.5	57.8	4.69	13.335 CC, ES		
1,200.0	1,199.9	1,197.3	1,197.3	2.5	2.5	-102.61	30.2	57.0	65.2	60.1	5.09	12.809 SF		
1,300.0	1,299.5	1,294.2	1,293.9	2.7	2.7	-105.61	29.3	64.3	73.3	67.9	5.47	13.410		
1,400.0	1,398.3	1,391.0	1,389.9	2.9	3.0	-109.30	27.9	76.5	87.3	81.4	5.89	14.809		
1,500.0	1,496.0	1,488.0	1,485.7	3.2	3.2	-113.79	26.1	91.1	105.6	99.2	6.38	16.562		
1,600.0	1,592.3	1,584.8	1,581.5	3.6	3.5	-119.14	24.3	105.7	127.4	120.5	6.92	18.418		
1,700.0	1,686.7	1,680.2	1,675.8	4.0	3.8	-124.52	22.6	120.1	153.5	146.0	7.50	20.452		
1,800.0	1,778.9	1,773.8	1,768.3	4.6	4.0	-129.47	20.9	134.2	184.5	176.3	8.12	22.714		
1,900.0	1,868.5	1,865.3	1,858.6	5.3	4.3	-133.80	19.2	147.9	220.7	212.0	8.76	25.213		
2,000.0	1,955.3	1,954.2	1,946.6	6.1	4.6	-137.46	17.6	161.4	262.4	253.0	9.40	27.930		
2,100.0	2,039.0	2,040.3	2,031.7	7.1	4.9	-140.48	16.0	174.3	309.5	299.4	10.04	30.829		
2,166.2	2,092.4	2,095.6	2,086.3	7.8	5.1	-142.15	15.0	182.7	343.5	333.1	10.47	32.824		
2,200.0	2,119.3	2,123.5	2,113.9	8.1	5.2	-143.35	14.5	186.9	361.6	350.9	10.70	33.785		
2,300.0	2,198.8	2,206.0	2,195.4	9.3	5.4	-146.28	13.0	199.3	415.5	404.1	11.41	36.424		
2,400.0	2,278.3	2,288.4	2,276.9	10.4	5.7	-148.57	11.5	211.7	470.1	457.9	12.12	38.776		
2,500.0	2,357.9	2,370.9	2,358.4	11.6	6.0	-150.38	10.0	224.1	525.0	512.2	12.85	40.871		
2,600.0	2,437.4	2,453.4	2,439.9	12.8	6.3	-151.86	8.5	236.6	580.3	566.8	13.58	42.742		
2,700.0	2,516.9	2,535.8	2,521.4	13.9	6.6	-153.09	7.0	249.0	635.8	621.5	14.32	44.415		
2,800.0	2,596.5	2,618.3	2,602.9	15.1	6.8	-154.12	5.5	261.4	691.5	676.5	15.06	45.920		
2,900.0	2,676.0	2,700.7	2,684.4	16.3	7.1	-155.00	4.0	273.9	747.3	731.5	15.81	47.274		
3,000.0	2,755.5	2,783.2	2,765.9	17.5	7.4	-155.76	2.5	286.3	803.3	786.7	16.56	48.499		
3,100.0	2,835.1	2,865.7	2,847.4	18.7	7.7	-156.42	1.0	298.7	859.3	842.0	17.32	49.610		
3,200.0	2,914.6	2,948.1	2,928.9	19.9	8.0	-157.00	-0.5	311.1	915.4	897.3	18.08	50.622		
3,300.0	2,994.1	3,030.6	3,010.4	21.1	8.3	-157.52	-2.0	323.6	971.5	952.6	18.85	51.546		
3,400.0	3,073.7	3,113.0	3,091.9	22.3	8.6	-157.97	-3.5	336.0	1,027.7	1,008.1	19.61	52.394		
3,500.0	3,153.2	3,195.5	3,173.4	23.5	8.9	-158.39	-5.1	348.4	1,083.9	1,063.5	20.38	53.172		
3,600.0	3,232.7	3,277.9	3,255.0	24.8	9.1	-158.76	-6.6	360.8	1,140.2	1,119.0	21.16	53.890		
3,700.0	3,312.2	3,360.4	3,336.5	26.0	9.4	-159.09	-8.1	373.3	1,196.4	1,174.5	21.93	54.553		
3,800.0	3,391.8	3,442.9	3,418.0	27.2	9.7	-159.40	-9.6	385.7	1,252.8	1,230.0	22.71	55.168		
3,900.0	3,471.3	3,525.3	3,499.5	28.4	10.0	-159.68	-11.1	398.1	1,309.1	1,285.6	23.49	55.739		
3,963.3	3,521.6	3,577.5	3,551.0	29.2	10.2	-159.84	-12.0	406.0	1,344.7	1,320.8	23.98	56.079		
4,000.0	3,551.1	3,608.0	3,581.2	29.6	10.3	-160.22	-12.6	410.6	1,365.1	1,340.8	24.30	56.180		
4,100.0	3,633.7	3,693.2	3,665.4	30.4	10.6	-161.08	-14.1	423.4	1,417.3	1,392.2	25.14	56.375		
4,200.0	3,719.6	3,781.4	3,752.6	31.2	10.9	-161.73	-15.7	436.7	1,464.5	1,438.5	25.97	56.391		
4,300.0	3,808.5	3,872.1	3,842.3	32.0	11.3	-162.20	-17.4	450.4	1,506.4	1,479.7	26.77	56.273		
4,400.0	3,900.0	3,965.1	3,934.2	32.6	11.6	-162.51	-19.1	464.4	1,543.1	1,515.5	27.53	56.056		
4,500.0	3,993.7	4,060.0	4,028.0	33.2	11.9	-162.68	-20.8	478.7	1,574.2	1,546.0	28.23	55.763		
4,600.0	4,089.5	4,156.5	4,123.3	33.7	12.3	-162.72	-22.6	493.2	1,599.8	1,570.9	28.87	55.409		
4,700.0	4,186.8	4,246.4	4,212.3	34.1	12.5	-162.71	-24.1	505.6	1,619.9	1,590.6	29.34	55.211		
4,800.0	4,285.3	4,335.0	4,300.6	34.4	12.7	-162.74	-25.1	513.8	1,634.9	1,605.3	29.63	55.181		
4,900.0	4,384.7	4,424.4	4,389.8	34.6	12.9	-162.79	-25.6	518.0	1,644.8	1,615.0	29.76	55.269		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,484.6	4,519.1	4,484.6	34.7	13.0	-162.87	-25.7	518.5	1,649.3	1,619.6	29.75	55.433		
5,029.4	4,514.0	4,548.6	4,514.0	34.7	13.1	-0.70	-25.7	518.5	1,649.6	1,619.8	29.74	55.467		
5,100.0	4,584.6	4,619.1	4,584.6	34.8	13.2	-0.70	-25.7	518.5	1,649.6	1,619.7	29.93	55.119		
5,200.0	4,684.6	4,719.1	4,684.6	34.8	13.4	-0.70	-25.7	518.5	1,649.6	1,619.4	30.20	54.623		
5,300.0	4,784.6	4,819.1	4,784.6	34.9	13.5	-0.70	-25.7	518.5	1,649.6	1,619.1	30.48	54.129		
5,400.0	4,884.6	4,919.1	4,884.6	34.9	13.7	-0.70	-25.7	518.5	1,649.6	1,618.8	30.75	53.637		
5,500.0	4,984.6	5,019.1	4,984.6	35.0	13.9	-0.70	-25.7	518.5	1,649.6	1,618.5	31.04	53.147		
5,600.0	5,084.6	5,119.1	5,084.6	35.0	14.0	-0.70	-25.7	518.5	1,649.6	1,618.3	31.33	52.660		
5,700.0	5,184.6	5,219.1	5,184.6	35.1	14.2	-0.70	-25.7	518.5	1,649.6	1,618.0	31.62	52.176		
5,800.0	5,284.6	5,319.1	5,284.6	35.2	14.4	-0.70	-25.7	518.5	1,649.6	1,617.7	31.91	51.694		
5,900.0	5,384.6	5,419.1	5,384.6	35.2	14.5	-0.70	-25.7	518.5	1,649.6	1,617.4	32.21	51.216		
6,000.0	5,484.6	5,519.1	5,484.6	35.3	14.7	-0.70	-25.7	518.5	1,649.6	1,617.1	32.51	50.742		
6,100.0	5,584.6	5,619.1	5,584.6	35.4	14.9	-0.70	-25.7	518.5	1,649.6	1,616.8	32.81	50.271		
6,200.0	5,684.6	5,719.1	5,684.6	35.4	15.1	-0.70	-25.7	518.5	1,649.6	1,616.5	33.12	49.804		
6,300.0	5,784.6	5,819.1	5,784.6	35.5	15.2	-0.70	-25.7	518.5	1,649.6	1,616.2	33.43	49.341		
6,400.0	5,884.6	5,919.1	5,884.6	35.6	15.4	-0.70	-25.7	518.5	1,649.6	1,615.8	33.75	48.882		
6,500.0	5,984.6	6,019.1	5,984.6	35.6	15.6	-0.70	-25.7	518.5	1,649.6	1,615.5	34.06	48.428		
6,600.0	6,084.6	6,119.1	6,084.6	35.7	15.8	-0.70	-25.7	518.5	1,649.6	1,615.2	34.38	47.978		
6,700.0	6,184.6	6,219.1	6,184.6	35.8	16.0	-0.70	-25.7	518.5	1,649.6	1,614.9	34.70	47.532		
6,800.0	6,284.6	6,319.1	6,284.6	35.9	16.1	-0.70	-25.7	518.5	1,649.6	1,614.6	35.03	47.091		
6,900.0	6,384.6	6,419.1	6,384.6	35.9	16.3	-0.70	-25.7	518.5	1,649.6	1,614.2	35.36	46.655		
7,000.0	6,484.6	6,519.1	6,484.6	36.0	16.5	-0.70	-25.7	518.5	1,649.6	1,613.9	35.69	46.223		
7,100.0	6,584.6	6,619.1	6,584.6	36.1	16.7	-0.70	-25.7	518.5	1,649.6	1,613.6	36.02	45.796		
7,200.0	6,684.6	6,719.1	6,684.6	36.2	16.9	-0.70	-25.7	518.5	1,649.6	1,613.2	36.36	45.374		
7,300.0	6,784.6	6,819.1	6,784.6	36.2	17.1	-0.70	-25.7	518.5	1,649.6	1,612.9	36.69	44.956		
7,400.0	6,884.6	6,919.1	6,884.6	36.3	17.3	-0.70	-25.7	518.5	1,649.6	1,612.6	37.03	44.544		
7,500.0	6,984.6	7,019.1	6,984.6	36.4	17.4	-0.70	-25.7	518.5	1,649.6	1,612.2	37.37	44.136		
7,600.0	7,084.6	7,119.1	7,084.6	36.5	17.6	-0.70	-25.7	518.5	1,649.6	1,611.9	37.72	43.733		
7,700.0	7,184.6	7,219.1	7,184.6	36.6	17.8	-0.70	-25.7	518.5	1,649.6	1,611.5	38.07	43.335		
7,703.2	7,187.7	7,222.3	7,187.7	36.6	17.8	-0.70	-25.7	518.5	1,649.6	1,611.5	38.08	43.323		
7,800.0	7,284.6	7,253.6	7,219.0	36.7	17.9	-0.70	-25.7	518.5	1,650.9	1,612.6	38.29	43.118		
7,813.4	7,298.0	7,253.6	7,219.0	36.7	17.9	-0.70	-25.7	518.5	1,651.5	1,613.2	38.31	43.110		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	60.74	24.4	43.6	50.0					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	24.4	43.6	50.0	49.8	0.19	262.867		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	24.4	43.6	50.0	49.3	0.64	78.140		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	24.4	43.6	50.0	48.9	1.09	45.890		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	24.4	43.6	50.0	48.4	1.54	32.484		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	24.4	43.6	50.0	48.0	1.99	25.140		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	24.4	43.6	50.0	47.5	2.44	20.504		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	24.4	43.6	50.0	47.1	2.89	17.312		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	24.4	43.6	50.0	46.6	3.34	14.979		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	24.4	43.6	50.0	46.2	3.79	13.201		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	60.74	24.4	43.6	50.0	45.7	4.24	11.800		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	60.74	24.4	43.6	50.0	45.3	4.69	10.668 CC, ES		
1,200.0	1,199.9	1,199.0	1,199.0	2.5	2.5	-102.03	22.8	45.6	51.6	46.5	5.08	10.149 SF		
1,300.0	1,299.5	1,297.9	1,297.5	2.7	2.7	-103.62	18.1	51.6	56.4	50.9	5.45	10.342		
1,400.0	1,398.3	1,396.5	1,395.3	2.9	2.9	-105.71	10.2	61.6	64.5	58.6	5.87	10.973		
1,500.0	1,496.0	1,494.9	1,492.1	3.2	3.2	-107.84	-0.8	75.5	75.9	69.5	6.39	11.879		
1,600.0	1,592.3	1,593.7	1,588.8	3.6	3.5	-111.55	-13.2	91.1	90.0	83.0	7.00	12.855		
1,700.0	1,686.7	1,691.7	1,684.8	4.0	3.8	-117.01	-25.5	106.6	107.1	99.4	7.69	13.927		
1,800.0	1,778.9	1,788.4	1,779.6	4.6	4.2	-123.01	-37.6	121.9	128.2	119.8	8.42	15.236		
1,900.0	1,868.5	1,883.7	1,872.9	5.3	4.5	-128.79	-49.5	136.9	154.3	145.1	9.14	16.873		
2,000.0	1,955.3	1,977.0	1,964.3	6.1	4.9	-133.94	-61.2	151.7	185.8	175.9	9.85	18.864		
2,100.0	2,039.0	2,068.1	2,053.5	7.1	5.2	-138.31	-72.6	166.1	222.9	212.3	10.52	21.180		
2,166.2	2,092.4	2,127.0	2,111.2	7.8	5.5	-140.79	-80.0	175.4	250.5	239.6	10.95	22.870		
2,200.0	2,119.3	2,156.8	2,140.4	8.1	5.6	-142.25	-83.7	180.1	265.4	254.2	11.19	23.717		
2,300.0	2,198.8	2,244.8	2,226.6	9.3	6.0	-145.78	-94.8	194.0	310.0	298.1	11.89	26.059		
2,400.0	2,278.3	2,332.9	2,312.9	10.4	6.3	-148.43	-105.8	207.9	355.3	342.7	12.62	28.162		
2,500.0	2,357.9	2,421.0	2,399.1	11.6	6.7	-150.49	-116.8	221.9	401.1	387.7	13.35	30.041		
2,600.0	2,437.4	2,509.0	2,485.4	12.8	7.1	-152.14	-127.9	235.8	447.2	433.1	14.10	31.719		
2,700.0	2,516.9	2,597.1	2,571.6	13.9	7.4	-153.48	-138.9	249.7	493.6	478.7	14.86	33.221		
2,800.0	2,596.5	2,685.1	2,657.9	15.1	7.8	-154.59	-149.9	263.6	540.1	524.5	15.62	34.569		
2,900.0	2,676.0	2,773.2	2,744.1	16.3	8.2	-155.52	-161.0	277.5	586.8	570.4	16.40	35.783		
3,000.0	2,755.5	2,861.3	2,830.4	17.5	8.6	-156.32	-172.0	291.5	633.6	616.4	17.18	36.879		
3,100.0	2,835.1	2,949.3	2,916.6	18.7	8.9	-157.01	-183.0	305.4	680.4	662.5	17.97	37.873		
3,200.0	2,914.6	3,037.4	3,002.9	19.9	9.3	-157.62	-194.1	319.3	727.4	708.6	18.76	38.777		
3,300.0	2,994.1	3,125.4	3,089.1	21.1	9.7	-158.14	-205.1	333.2	774.4	754.8	19.55	39.603		
3,400.0	3,073.7	3,213.5	3,175.4	22.3	10.1	-158.61	-216.1	347.1	821.4	801.0	20.35	40.359		
3,500.0	3,153.2	3,301.5	3,261.6	23.5	10.5	-159.03	-227.2	361.0	868.5	847.3	21.15	41.054		
3,600.0	3,232.7	3,389.6	3,347.9	24.8	10.9	-159.41	-238.2	375.0	915.6	893.6	21.96	41.693		
3,700.0	3,312.2	3,477.7	3,434.1	26.0	11.3	-159.75	-249.2	388.9	962.7	939.9	22.77	42.284		
3,800.0	3,391.8	3,565.7	3,520.4	27.2	11.6	-160.05	-260.3	402.8	1,009.9	986.3	23.58	42.831		
3,900.0	3,471.3	3,653.8	3,606.6	28.4	12.0	-160.33	-271.3	416.7	1,057.0	1,032.7	24.39	43.339		
3,963.3	3,521.6	3,709.5	3,661.2	29.2	12.3	-160.50	-278.3	425.5	1,086.9	1,062.0	24.90	43.642		
4,000.0	3,551.1	3,742.0	3,693.0	29.6	12.4	-160.80	-282.3	430.7	1,103.9	1,078.7	25.24	43.736		
4,100.0	3,633.7	3,832.4	3,781.6	30.4	12.8	-161.48	-293.7	445.0	1,146.6	1,120.5	26.12	43.892		
4,200.0	3,719.6	3,925.1	3,872.4	31.2	13.2	-161.95	-305.3	459.6	1,184.1	1,157.1	27.00	43.859		
4,300.0	3,808.5	4,019.8	3,965.1	32.0	13.7	-162.24	-317.1	474.6	1,216.0	1,188.2	27.84	43.675		
4,400.0	3,900.0	4,116.2	4,059.5	32.6	14.1	-162.38	-329.2	489.8	1,242.5	1,213.8	28.65	43.365		
4,500.0	3,993.7	4,189.6	4,131.6	33.2	14.4	-162.47	-337.9	500.7	1,264.0	1,234.8	29.26	43.199		
4,600.0	4,089.5	4,258.7	4,199.9	33.7	14.6	-162.56	-344.5	509.1	1,282.1	1,252.4	29.70	43.172		
4,700.0	4,186.8	4,328.1	4,268.7	34.1	14.7	-162.64	-349.6	515.5	1,296.7	1,266.7	30.01	43.215		
4,800.0	4,285.3	4,400.0	4,340.4	34.4	14.9	-162.71	-353.2	520.1	1,307.9	1,277.7	30.19	43.318		
4,900.0	4,384.7	4,467.1	4,407.5	34.6	15.0	-162.78	-355.1	522.5	1,315.4	1,285.2	30.23	43.520		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 44B-11-06-92 - Wellbore #1 - Design #1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,484.6	4,544.2	4,484.6	34.7	15.1	-162.85	-355.5	523.0	1,319.4	1,289.3	30.16	43.751	
5,029.4	4,514.0	4,573.7	4,514.0	34.7	15.1	-0.68	-355.5	523.0	1,319.7	1,289.5	30.13	43.801	
5,100.0	4,584.6	4,644.2	4,584.6	34.8	15.2	-0.68	-355.5	523.0	1,319.7	1,289.4	30.31	43.541	
5,200.0	4,684.6	4,744.2	4,684.6	34.8	15.4	-0.68	-355.5	523.0	1,319.7	1,289.1	30.57	43.172	
5,300.0	4,784.6	4,844.2	4,784.6	34.9	15.5	-0.68	-355.5	523.0	1,319.7	1,288.8	30.83	42.803	
5,400.0	4,884.6	4,944.2	4,884.6	34.9	15.6	-0.68	-355.5	523.0	1,319.7	1,288.6	31.10	42.434	
5,500.0	4,984.6	5,044.2	4,984.6	35.0	15.8	-0.68	-355.5	523.0	1,319.7	1,288.3	31.37	42.066	
5,600.0	5,084.6	5,144.2	5,084.6	35.0	15.9	-0.68	-355.5	523.0	1,319.7	1,288.0	31.65	41.699	
5,700.0	5,184.6	5,244.2	5,184.6	35.1	16.0	-0.68	-355.5	523.0	1,319.7	1,287.7	31.93	41.334	
5,800.0	5,284.6	5,344.2	5,284.6	35.2	16.2	-0.68	-355.5	523.0	1,319.7	1,287.5	32.21	40.970	
5,900.0	5,384.6	5,444.2	5,384.6	35.2	16.3	-0.68	-355.5	523.0	1,319.7	1,287.2	32.50	40.608	
6,000.0	5,484.6	5,544.2	5,484.6	35.3	16.5	-0.68	-355.5	523.0	1,319.7	1,286.9	32.79	40.248	
6,100.0	5,584.6	5,644.2	5,584.6	35.4	16.6	-0.68	-355.5	523.0	1,319.7	1,286.6	33.08	39.890	
6,200.0	5,684.6	5,744.2	5,684.6	35.4	16.8	-0.68	-355.5	523.0	1,319.7	1,286.3	33.38	39.534	
6,300.0	5,784.6	5,844.2	5,784.6	35.5	16.9	-0.68	-355.5	523.0	1,319.7	1,286.0	33.68	39.180	
6,400.0	5,884.6	5,944.2	5,884.6	35.6	17.1	-0.68	-355.5	523.0	1,319.7	1,285.7	33.99	38.830	
6,500.0	5,984.6	6,044.2	5,984.6	35.6	17.2	-0.68	-355.5	523.0	1,319.7	1,285.4	34.29	38.482	
6,600.0	6,084.6	6,144.2	6,084.6	35.7	17.4	-0.68	-355.5	523.0	1,319.7	1,285.1	34.60	38.137	
6,700.0	6,184.6	6,244.2	6,184.6	35.8	17.6	-0.68	-355.5	523.0	1,319.7	1,284.7	34.92	37.794	
6,800.0	6,284.6	6,344.2	6,284.6	35.9	17.7	-0.68	-355.5	523.0	1,319.7	1,284.4	35.23	37.455	
6,900.0	6,384.6	6,444.2	6,384.6	35.9	17.9	-0.68	-355.5	523.0	1,319.7	1,284.1	35.55	37.119	
7,000.0	6,484.6	6,544.2	6,484.6	36.0	18.0	-0.68	-355.5	523.0	1,319.7	1,283.8	35.87	36.786	
7,100.0	6,584.6	6,644.2	6,584.6	36.1	18.2	-0.68	-355.5	523.0	1,319.7	1,283.5	36.20	36.456	
7,200.0	6,684.6	6,744.2	6,684.6	36.2	18.4	-0.68	-355.5	523.0	1,319.7	1,283.1	36.53	36.130	
7,300.0	6,784.6	6,844.2	6,784.6	36.2	18.5	-0.68	-355.5	523.0	1,319.7	1,282.8	36.86	35.807	
7,400.0	6,884.6	6,944.2	6,884.6	36.3	18.7	-0.68	-355.5	523.0	1,319.7	1,282.5	37.19	35.487	
7,500.0	6,984.6	7,044.2	6,984.6	36.4	18.9	-0.68	-355.5	523.0	1,319.7	1,282.1	37.52	35.171	
7,600.0	7,084.6	7,144.2	7,084.6	36.5	19.0	-0.68	-355.5	523.0	1,319.7	1,281.8	37.86	34.858	
7,700.0	7,184.6	7,244.2	7,184.6	36.6	19.2	-0.68	-355.5	523.0	1,319.7	1,281.5	38.20	34.548	
7,743.9	7,228.5	7,288.1	7,228.5	36.6	19.3	-0.68	-355.5	523.0	1,319.7	1,281.3	38.35	34.414	
7,800.0	7,284.6	7,303.7	7,244.0	36.7	19.3	-0.68	-355.5	523.0	1,320.3	1,281.8	38.46	34.326	
7,813.4	7,298.0	7,303.7	7,244.0	36.7	19.3	-0.68	-355.5	523.0	1,320.8	1,282.3	38.48	34.320	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 44C-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	18.3	32.7	37.5					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	18.3	32.7	37.5	37.3	0.19	197.158		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	18.3	32.7	37.5	36.9	0.64	58.607		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	18.3	32.7	37.5	36.4	1.09	34.419		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	18.3	32.7	37.5	36.0	1.54	24.364		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	18.3	32.7	37.5	35.5	1.99	18.856		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	18.3	32.7	37.5	35.1	2.44	15.379		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	18.3	32.7	37.5	34.6	2.89	12.984		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	18.3	32.7	37.5	34.2	3.34	11.235		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	18.3	32.7	37.5	33.7	3.79	9.901		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	60.74	18.3	32.7	37.5	33.3	4.24	8.850		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	60.74	18.3	32.7	37.5	32.8	4.69	8.001 CC, ES		
1,200.0	1,199.9	1,199.8	1,199.8	2.5	2.5	-101.99	16.2	34.2	38.4	33.3	5.08	7.551		
1,300.0	1,299.5	1,299.6	1,299.2	2.7	2.7	-103.52	9.8	38.7	41.0	35.6	5.44	7.531 SF		
1,400.0	1,398.3	1,399.4	1,398.2	2.9	2.9	-105.65	-0.8	46.2	45.5	39.6	5.86	7.751		
1,500.0	1,496.0	1,499.2	1,496.3	3.2	3.2	-107.99	-15.7	56.6	51.8	45.4	6.38	8.118		
1,600.0	1,592.3	1,598.9	1,593.3	3.6	3.5	-110.23	-34.7	70.0	59.9	52.9	7.02	8.543		
1,700.0	1,686.7	1,698.5	1,688.9	4.0	3.9	-112.43	-57.6	86.1	70.0	62.2	7.81	8.964		
1,800.0	1,778.9	1,797.5	1,783.5	4.6	4.4	-116.95	-81.2	102.7	82.6	73.9	8.70	9.502		
1,900.0	1,868.5	1,895.6	1,877.3	5.3	4.8	-123.10	-104.7	119.2	98.9	89.3	9.58	10.326		
2,000.0	1,955.3	1,992.5	1,970.0	6.1	5.3	-129.54	-127.9	135.5	119.9	109.5	10.39	11.538		
2,100.0	2,039.0	2,087.7	2,061.1	7.1	5.8	-135.46	-150.6	151.5	146.3	135.2	11.11	13.166		
2,166.2	2,092.4	2,149.7	2,120.3	7.8	6.2	-138.92	-165.5	161.9	167.0	155.4	11.54	14.463		
2,200.0	2,119.3	2,181.2	2,150.4	8.1	6.4	-140.74	-173.0	167.2	178.3	166.5	11.77	15.143		
2,300.0	2,198.8	2,274.2	2,239.3	9.3	6.9	-145.00	-195.2	182.9	212.4	200.0	12.47	17.035		
2,400.0	2,278.3	2,367.1	2,328.3	10.4	7.4	-148.08	-217.5	198.5	247.3	234.1	13.20	18.742		
2,500.0	2,357.9	2,460.1	2,417.2	11.6	7.9	-150.41	-239.7	214.1	282.7	268.8	13.95	20.268		
2,600.0	2,437.4	2,553.1	2,506.1	12.8	8.5	-152.22	-261.9	229.8	318.5	303.7	14.72	21.628		
2,700.0	2,516.9	2,646.1	2,595.0	13.9	9.0	-153.67	-284.2	245.4	354.4	338.9	15.52	22.842		
2,800.0	2,596.5	2,739.0	2,683.9	15.1	9.6	-154.85	-306.4	261.0	390.5	374.2	16.32	23.928		
2,900.0	2,676.0	2,832.0	2,772.8	16.3	10.1	-155.84	-328.6	276.7	426.7	409.6	17.14	24.903		
3,000.0	2,755.5	2,925.0	2,861.7	17.5	10.7	-156.67	-350.9	292.3	463.0	445.1	17.96	25.781		
3,100.0	2,835.1	3,018.0	2,950.7	18.7	11.2	-157.37	-373.1	307.9	499.4	480.6	18.79	26.574		
3,200.0	2,914.6	3,111.0	3,039.6	19.9	11.8	-157.99	-395.3	323.6	535.9	516.2	19.63	27.295		
3,300.0	2,994.1	3,203.9	3,128.5	21.1	12.3	-158.52	-417.6	339.2	572.4	551.9	20.48	27.951		
3,400.0	3,073.7	3,296.9	3,217.4	22.3	12.9	-158.99	-439.8	354.8	608.9	587.6	21.33	28.550		
3,500.0	3,153.2	3,389.9	3,306.3	23.5	13.5	-159.41	-462.0	370.5	645.5	623.3	22.18	29.099		
3,600.0	3,232.7	3,482.9	3,395.2	24.8	14.0	-159.79	-484.3	386.1	682.1	659.0	23.04	29.604		
3,700.0	3,312.2	3,575.8	3,484.2	26.0	14.6	-160.12	-506.5	401.8	718.7	694.8	23.90	30.070		
3,800.0	3,391.8	3,668.8	3,573.1	27.2	15.1	-160.42	-528.8	417.4	755.3	730.5	24.76	30.500		
3,900.0	3,471.3	3,761.8	3,662.0	28.4	15.7	-160.70	-551.0	433.0	792.0	766.3	25.63	30.900		
3,963.3	3,521.6	3,820.6	3,718.2	29.2	16.1	-160.86	-565.1	442.9	815.2	789.0	26.18	31.138		
4,000.0	3,551.1	3,854.9	3,751.0	29.6	16.3	-161.10	-573.3	448.7	828.3	801.7	26.54	31.212		
4,100.0	3,633.7	3,949.7	3,841.6	30.4	16.8	-161.59	-595.9	464.6	860.2	832.7	27.49	31.293		
4,200.0	3,719.6	4,038.6	3,926.6	31.2	17.4	-161.87	-617.2	479.6	886.7	858.3	28.41	31.213		
4,300.0	3,808.5	4,114.2	3,999.4	32.0	17.8	-162.06	-634.1	491.5	909.1	880.0	29.17	31.171		
4,400.0	3,900.0	4,184.3	4,067.5	32.6	18.0	-162.23	-647.7	501.0	928.9	899.1	29.77	31.199		
4,500.0	3,993.7	4,254.4	4,136.2	33.2	18.3	-162.38	-659.2	509.1	946.0	915.7	30.26	31.259		
4,600.0	4,089.5	4,324.5	4,205.4	33.7	18.5	-162.50	-668.6	515.7	960.2	929.6	30.63	31.349		
4,700.0	4,186.8	4,400.0	4,280.2	34.1	18.7	-162.61	-676.4	521.2	971.8	940.9	30.89	31.460		
4,800.0	4,285.3	4,464.7	4,344.7	34.4	18.8	-162.70	-681.2	524.6	980.5	949.5	30.99	31.638		
4,900.0	4,384.7	4,534.8	4,414.6	34.6	18.9	-162.76	-684.4	526.8	986.4	955.4	30.99	31.834		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 44C-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,484.6	4,605.2	4,485.0	34.7	19.0	-162.81	-685.4	527.6	989.5	958.6	30.86	32.060		
5,029.4	4,514.0	4,634.2	4,514.0	34.7	19.0	-0.64	-685.4	527.6	989.7	958.9	30.82	32.116		
5,100.0	4,584.6	4,704.7	4,584.6	34.8	19.1	-0.64	-685.4	527.6	989.7	958.8	30.99	31.937		
5,200.0	4,684.6	4,804.7	4,684.6	34.8	19.2	-0.64	-685.4	527.6	989.7	958.5	31.24	31.683		
5,300.0	4,784.6	4,904.7	4,784.6	34.9	19.3	-0.64	-685.4	527.6	989.7	958.3	31.49	31.429		
5,400.0	4,884.6	5,004.7	4,884.6	34.9	19.4	-0.64	-685.4	527.6	989.7	958.0	31.75	31.175		
5,500.0	4,984.6	5,104.7	4,984.6	35.0	19.5	-0.64	-685.4	527.6	989.7	957.7	32.01	30.920		
5,600.0	5,084.6	5,204.7	5,084.6	35.0	19.6	-0.64	-685.4	527.6	989.7	957.5	32.27	30.666		
5,700.0	5,184.6	5,304.7	5,184.6	35.1	19.7	-0.64	-685.4	527.6	989.7	957.2	32.54	30.412		
5,800.0	5,284.6	5,404.7	5,284.6	35.2	19.9	-0.64	-685.4	527.6	989.7	956.9	32.82	30.159		
5,900.0	5,384.6	5,504.7	5,384.6	35.2	20.0	-0.64	-685.4	527.6	989.7	956.7	33.09	29.907		
6,000.0	5,484.6	5,604.7	5,484.6	35.3	20.1	-0.64	-685.4	527.6	989.7	956.4	33.38	29.655		
6,100.0	5,584.6	5,704.7	5,584.6	35.4	20.2	-0.64	-685.4	527.6	989.7	956.1	33.66	29.404		
6,200.0	5,684.6	5,804.7	5,684.6	35.4	20.3	-0.64	-685.4	527.6	989.7	955.8	33.95	29.155		
6,300.0	5,784.6	5,904.7	5,784.6	35.5	20.5	-0.64	-685.4	527.6	989.7	955.5	34.24	28.907		
6,400.0	5,884.6	6,004.7	5,884.6	35.6	20.6	-0.64	-685.4	527.6	989.7	955.2	34.53	28.660		
6,500.0	5,984.6	6,104.7	5,984.6	35.6	20.7	-0.64	-685.4	527.6	989.7	954.9	34.83	28.415		
6,600.0	6,084.6	6,204.7	6,084.6	35.7	20.8	-0.64	-685.4	527.6	989.7	954.6	35.13	28.171		
6,700.0	6,184.6	6,304.7	6,184.6	35.8	21.0	-0.64	-685.4	527.6	989.7	954.3	35.44	27.929		
6,800.0	6,284.6	6,404.7	6,284.6	35.9	21.1	-0.64	-685.4	527.6	989.7	954.0	35.74	27.689		
6,900.0	6,384.6	6,504.7	6,384.6	35.9	21.2	-0.64	-685.4	527.6	989.7	953.7	36.06	27.451		
7,000.0	6,484.6	6,604.7	6,484.6	36.0	21.4	-0.64	-685.4	527.6	989.7	953.4	36.37	27.214		
7,100.0	6,584.6	6,704.7	6,584.6	36.1	21.5	-0.64	-685.4	527.6	989.7	953.1	36.68	26.980		
7,200.0	6,684.6	6,804.7	6,684.6	36.2	21.6	-0.64	-685.4	527.6	989.7	952.7	37.00	26.748		
7,300.0	6,784.6	6,904.7	6,784.6	36.2	21.8	-0.64	-685.4	527.6	989.7	952.4	37.32	26.517		
7,400.0	6,884.6	7,004.7	6,884.6	36.3	21.9	-0.64	-685.4	527.6	989.7	952.1	37.65	26.289		
7,500.0	6,984.6	7,104.7	6,984.6	36.4	22.0	-0.64	-685.4	527.6	989.7	951.8	37.98	26.063		
7,600.0	7,084.6	7,204.7	7,084.6	36.5	22.2	-0.64	-685.4	527.6	989.7	951.4	38.30	25.839		
7,700.0	7,184.6	7,304.7	7,184.6	36.6	22.3	-0.64	-685.4	527.6	989.7	951.1	38.64	25.618		
7,760.5	7,245.1	7,365.3	7,245.1	36.6	22.4	-0.64	-685.4	527.6	989.7	950.9	38.84	25.484		
7,800.0	7,284.6	7,389.2	7,269.0	36.7	22.5	-0.64	-685.4	527.6	989.9	950.9	38.94	25.419		
7,813.4	7,298.0	7,389.2	7,269.0	36.7	22.5	-0.64	-685.4	527.6	990.2	951.2	38.96	25.413		

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 44D-11-06-92 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	60.74	12.2	21.8	25.0					
100.0	100.0	100.0	100.0	0.1	0.1	60.74	12.2	21.8	25.0	24.8	0.19	131.439		
200.0	200.0	200.0	200.0	0.3	0.3	60.74	12.2	21.8	25.0	24.4	0.64	39.071		
300.0	300.0	300.0	300.0	0.5	0.5	60.74	12.2	21.8	25.0	23.9	1.09	22.946		
400.0	400.0	400.0	400.0	0.8	0.8	60.74	12.2	21.8	25.0	23.5	1.54	16.243		
500.0	500.0	500.0	500.0	1.0	1.0	60.74	12.2	21.8	25.0	23.0	1.99	12.570		
600.0	600.0	600.0	600.0	1.2	1.2	60.74	12.2	21.8	25.0	22.6	2.44	10.252		
700.0	700.0	700.0	700.0	1.4	1.4	60.74	12.2	21.8	25.0	22.1	2.89	8.656		
800.0	800.0	800.0	800.0	1.7	1.7	60.74	12.2	21.8	25.0	21.7	3.34	7.490		
900.0	900.0	900.0	900.0	1.9	1.9	60.74	12.2	21.8	25.0	21.2	3.79	6.601		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	60.74	12.2	21.8	25.0	20.8	4.24	5.900		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	60.74	12.2	21.8	25.0	20.3	4.69	5.334 CC, ES		
1,200.0	1,199.9	1,200.1	1,200.0	2.5	2.5	-102.27	9.9	23.0	25.5	20.4	5.08	5.015		
1,300.0	1,299.5	1,300.2	1,299.8	2.7	2.7	-104.58	2.8	26.5	26.9	21.5	5.44	4.950 SF		
1,400.0	1,398.3	1,400.3	1,399.1	2.9	2.9	-107.91	-8.9	32.3	29.5	23.6	5.86	5.029		
1,500.0	1,496.0	1,500.6	1,497.6	3.2	3.2	-111.68	-25.3	40.4	33.1	26.8	6.36	5.210		
1,600.0	1,592.3	1,600.9	1,595.2	3.6	3.5	-115.42	-46.3	50.9	38.0	31.0	6.97	5.450		
1,700.0	1,686.7	1,701.4	1,691.5	4.0	3.9	-118.81	-71.9	63.6	44.1	36.3	7.71	5.715		
1,800.0	1,778.9	1,802.0	1,786.3	4.6	4.4	-121.74	-102.1	78.6	51.4	42.8	8.59	5.978		
1,900.0	1,868.5	1,902.8	1,879.4	5.3	5.0	-124.20	-136.7	95.7	59.9	50.3	9.62	6.223		
2,000.0	1,955.3	2,002.0	1,970.1	6.1	5.7	-128.29	-172.6	113.6	71.1	60.4	10.65	6.677		
2,100.0	2,039.0	2,100.4	2,060.1	7.1	6.4	-134.10	-208.2	131.3	86.7	75.2	11.49	7.544		
2,166.2	2,092.4	2,164.9	2,119.1	7.8	6.9	-138.10	-231.6	142.9	99.9	87.9	11.95	8.360		
2,200.0	2,119.3	2,197.7	2,149.1	8.1	7.1	-140.13	-243.5	148.8	107.3	95.1	12.18	8.810		
2,300.0	2,198.8	2,294.7	2,237.8	9.3	7.8	-144.76	-278.6	166.2	129.9	117.0	12.91	10.061		
2,400.0	2,278.3	2,391.6	2,326.5	10.4	8.6	-148.02	-313.7	183.6	153.0	139.3	13.68	11.183		
2,500.0	2,357.9	2,488.6	2,415.2	11.6	9.3	-150.42	-348.8	201.1	176.5	162.0	14.49	12.178		
2,600.0	2,437.4	2,585.6	2,503.9	12.8	10.1	-152.26	-383.9	218.5	200.2	184.8	15.33	13.057		
2,700.0	2,516.9	2,682.6	2,592.6	13.9	10.9	-153.71	-419.0	236.0	224.0	207.8	16.19	13.837		
2,800.0	2,596.5	2,779.5	2,681.3	15.1	11.6	-154.88	-454.1	253.4	248.0	230.9	17.07	14.529		
2,900.0	2,676.0	2,876.5	2,770.0	16.3	12.4	-155.84	-489.3	270.8	272.0	254.0	17.96	15.146		
3,000.0	2,755.5	2,973.5	2,858.6	17.5	13.2	-156.65	-524.4	288.3	296.1	277.2	18.86	15.698		
3,100.0	2,835.1	3,070.5	2,947.3	18.7	14.0	-157.33	-559.5	305.7	320.2	300.5	19.77	16.195		
3,200.0	2,914.6	3,167.4	3,036.0	19.9	14.8	-157.92	-594.6	323.2	344.4	323.7	20.69	16.643		
3,300.0	2,994.1	3,264.4	3,124.7	21.1	15.6	-158.44	-629.7	340.6	368.6	347.0	21.62	17.050		
3,400.0	3,073.7	3,361.4	3,213.4	22.3	16.3	-158.89	-664.8	358.0	392.9	370.3	22.55	17.420		
3,500.0	3,153.2	3,458.4	3,302.1	23.5	17.1	-159.28	-700.0	375.5	417.1	393.6	23.49	17.757		
3,600.0	3,232.7	3,555.3	3,390.8	24.8	17.9	-159.64	-735.1	392.9	441.4	417.0	24.43	18.067		
3,700.0	3,312.2	3,652.3	3,479.5	26.0	18.7	-159.95	-770.2	410.3	465.7	440.3	25.38	18.351		
3,800.0	3,391.8	3,749.3	3,568.2	27.2	19.5	-160.24	-805.3	427.8	490.0	463.7	26.32	18.614		
3,900.0	3,471.3	3,846.3	3,656.9	28.4	20.3	-160.50	-840.4	445.2	514.3	487.0	27.28	18.856		
3,963.3	3,521.6	3,907.6	3,713.0	29.2	20.8	-160.65	-862.6	456.3	529.7	501.8	27.88	19.000		
4,000.0	3,551.1	3,939.8	3,742.5	29.6	21.1	-160.81	-874.3	462.0	538.3	510.1	28.25	19.057		
4,100.0	3,633.7	4,017.4	3,814.3	30.4	21.6	-161.20	-900.6	475.1	560.2	531.0	29.12	19.239		
4,200.0	3,719.6	4,100.0	3,892.0	31.2	22.0	-161.53	-925.7	487.6	579.9	550.1	29.89	19.404		
4,300.0	3,808.5	4,171.9	3,960.5	32.0	22.4	-161.81	-945.1	497.2	597.5	567.0	30.52	19.579		
4,400.0	3,900.0	4,248.8	4,034.7	32.6	22.7	-162.04	-963.3	506.3	613.0	581.9	31.06	19.738		
4,500.0	3,993.7	4,325.5	4,109.4	33.2	23.0	-162.24	-978.8	513.9	626.3	594.8	31.48	19.895		
4,600.0	4,089.5	4,400.0	4,182.6	33.7	23.2	-162.40	-991.2	520.1	637.4	605.6	31.78	20.056		
4,700.0	4,186.8	4,478.6	4,260.3	34.1	23.4	-162.53	-1,001.6	525.2	646.3	614.3	31.96	20.221		
4,800.0	4,285.3	4,555.0	4,336.3	34.4	23.6	-162.63	-1,008.9	528.9	653.0	621.0	32.02	20.395		
4,900.0	4,384.7	4,631.3	4,412.4	34.6	23.7	-162.70	-1,013.4	531.1	657.4	625.5	31.95	20.575		

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

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Valley Farms L - 44D-11-06-92 - Wellbore #1 - Design #1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,484.6	4,707.6	4,488.7	34.7	23.8	-162.74	-1,015.3	532.1	659.6	627.9	31.77	20.761	
5,029.4	4,514.0	4,732.9	4,514.0	34.7	23.9	-0.57	-1,015.3	532.1	659.8	628.1	31.70	20.814	
5,100.0	4,584.6	4,803.5	4,584.6	34.8	23.9	-0.57	-1,015.3	532.1	659.8	628.0	31.87	20.706	
5,200.0	4,684.6	4,903.5	4,684.6	34.8	24.0	-0.57	-1,015.3	532.1	659.8	627.7	32.11	20.552	
5,300.0	4,784.6	5,003.5	4,784.6	34.9	24.1	-0.57	-1,015.3	532.1	659.8	627.5	32.35	20.398	
5,400.0	4,884.6	5,103.5	4,884.6	34.9	24.2	-0.57	-1,015.3	532.1	659.8	627.2	32.60	20.243	
5,500.0	4,984.6	5,203.5	4,984.6	35.0	24.2	-0.57	-1,015.3	532.1	659.8	627.0	32.85	20.088	
5,600.0	5,084.6	5,303.5	5,084.6	35.0	24.3	-0.57	-1,015.3	532.1	659.8	626.7	33.10	19.932	
5,700.0	5,184.6	5,403.5	5,184.6	35.1	24.4	-0.57	-1,015.3	532.1	659.8	626.5	33.36	19.777	
5,800.0	5,284.6	5,503.5	5,284.6	35.2	24.5	-0.57	-1,015.3	532.1	659.8	626.2	33.63	19.622	
5,900.0	5,384.6	5,603.5	5,384.6	35.2	24.6	-0.57	-1,015.3	532.1	659.8	625.9	33.90	19.467	
6,000.0	5,484.6	5,703.5	5,484.6	35.3	24.7	-0.57	-1,015.3	532.1	659.8	625.7	34.17	19.312	
6,100.0	5,584.6	5,803.5	5,584.6	35.4	24.8	-0.57	-1,015.3	532.1	659.8	625.4	34.44	19.158	
6,200.0	5,684.6	5,903.5	5,684.6	35.4	24.9	-0.57	-1,015.3	532.1	659.8	625.1	34.72	19.004	
6,300.0	5,784.6	6,003.5	5,784.6	35.5	25.0	-0.57	-1,015.3	532.1	659.8	624.8	35.00	18.850	
6,400.0	5,884.6	6,103.5	5,884.6	35.6	25.1	-0.57	-1,015.3	532.1	659.8	624.5	35.29	18.697	
6,500.0	5,984.6	6,203.5	5,984.6	35.6	25.2	-0.57	-1,015.3	532.1	659.8	624.2	35.58	18.545	
6,600.0	6,084.6	6,303.5	6,084.6	35.7	25.3	-0.57	-1,015.3	532.1	659.8	624.0	35.87	18.394	
6,700.0	6,184.6	6,403.5	6,184.6	35.8	25.4	-0.57	-1,015.3	532.1	659.8	623.7	36.17	18.244	
6,800.0	6,284.6	6,503.5	6,284.6	35.9	25.5	-0.57	-1,015.3	532.1	659.8	623.4	36.47	18.094	
6,900.0	6,384.6	6,603.5	6,384.6	35.9	25.6	-0.57	-1,015.3	532.1	659.8	623.1	36.77	17.945	
7,000.0	6,484.6	6,703.5	6,484.6	36.0	25.7	-0.57	-1,015.3	532.1	659.8	622.8	37.07	17.798	
7,100.0	6,584.6	6,803.5	6,584.6	36.1	25.8	-0.57	-1,015.3	532.1	659.8	622.4	37.38	17.651	
7,200.0	6,684.6	6,903.5	6,684.6	36.2	25.9	-0.57	-1,015.3	532.1	659.8	622.1	37.69	17.506	
7,300.0	6,784.6	7,003.5	6,784.6	36.2	26.1	-0.57	-1,015.3	532.1	659.8	621.8	38.01	17.361	
7,400.0	6,884.6	7,103.5	6,884.6	36.3	26.2	-0.57	-1,015.3	532.1	659.8	621.5	38.32	17.218	
7,500.0	6,984.6	7,203.5	6,984.6	36.4	26.3	-0.57	-1,015.3	532.1	659.8	621.2	38.64	17.076	
7,600.0	7,084.6	7,303.5	7,084.6	36.5	26.4	-0.57	-1,015.3	532.1	659.8	620.9	38.96	16.935	
7,700.0	7,184.6	7,403.5	7,184.6	36.6	26.5	-0.57	-1,015.3	532.1	659.8	620.5	39.29	16.796	
7,800.0	7,284.6	7,503.5	7,284.6	36.7	26.7	-0.57	-1,015.3	532.1	659.8	620.2	39.61	16.657	
7,813.4	7,298.0	7,504.9	7,286.0	36.7	26.7	-0.57	-1,015.3	532.1	659.9	620.3	39.64	16.650	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 41B-14-06-92 @ 5564.4usft (PAD Est)

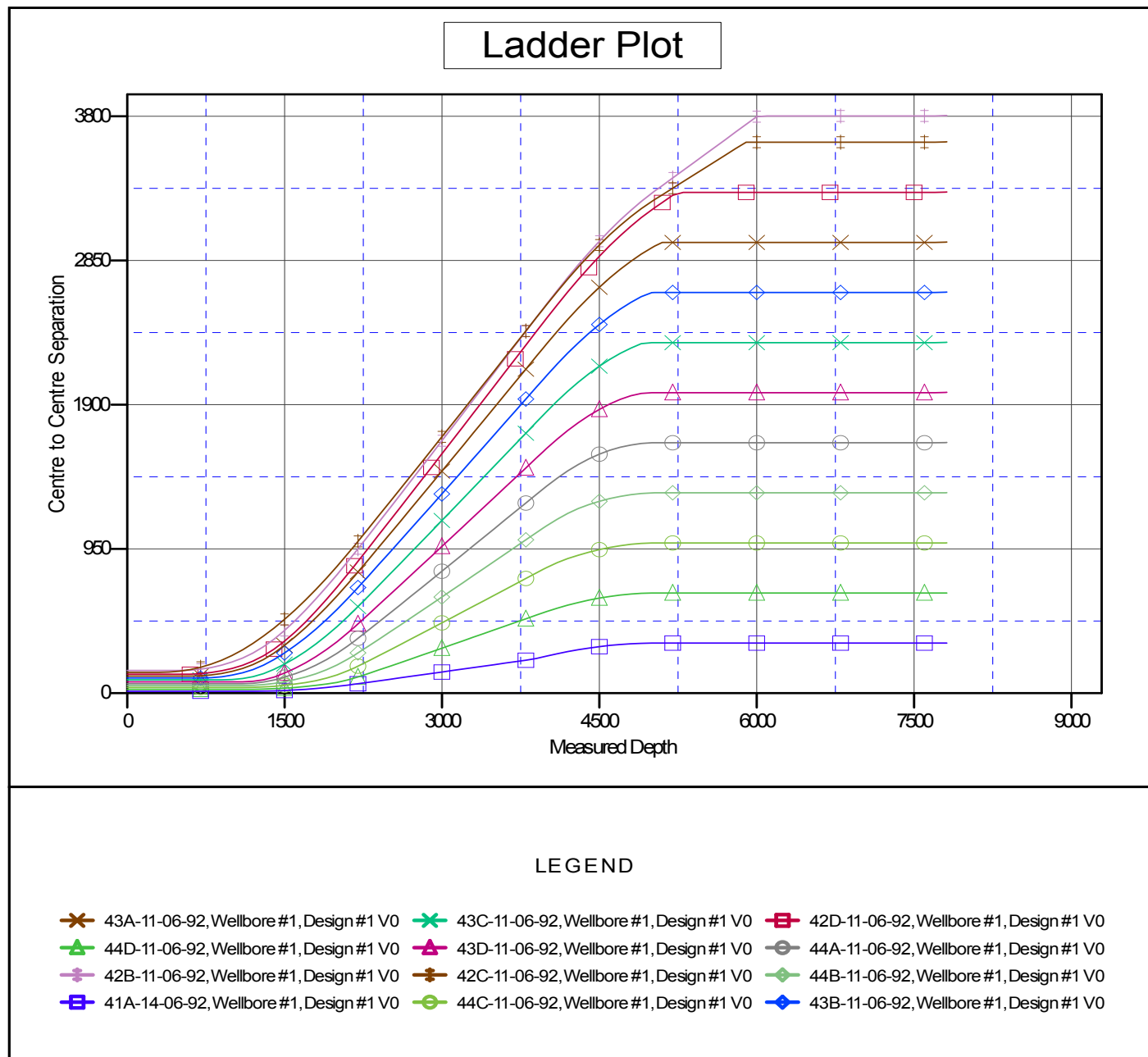
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: 41B-14-06-92

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: -1.34°

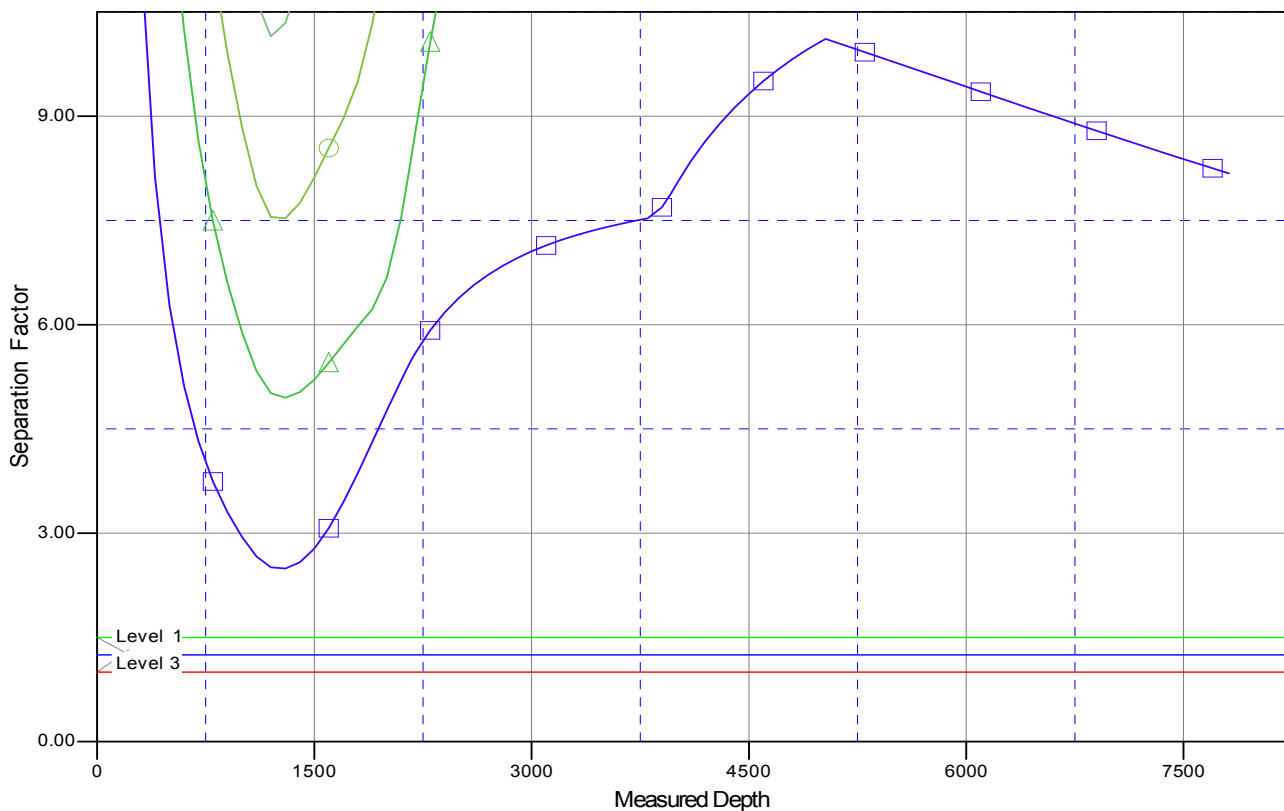


Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well 41B-14-06-92
Project:	Rockies Region	TVD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Reference Site:	Valley Farms L	MD Reference:	41B-14-06-92 @ 5564.4usft (PAD Est KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	41B-14-06-92	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	MasterDB
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 41B-14-06-92 @ 5564.4usft (PAD Est)
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: 41B-14-06-92
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.34°

Separation Factor Plot



LEGEND

- 43A-11-06-92, Wellbore #1, Design #1 V0
- 43C-11-06-92, Wellbore #1, Design #1 V0
- 42D-11-06-92, Wellbore #1, Design #1 V0
- 44D-11-06-92, Wellbore #1, Design #1 V0
- 43D-11-06-92, Wellbore #1, Design #1 V0
- 44A-11-06-92, Wellbore #1, Design #1 V0
- 42B-11-06-92, Wellbore #1, Design #1 V0
- 42C-11-06-92, Wellbore #1, Design #1 V0
- 44B-11-06-92, Wellbore #1, Design #1 V0
- 41A-14-06-92, Wellbore #1, Design #1 V0
- 44C-11-06-92, Wellbore #1, Design #1 V0
- 43B-11-06-92, Wellbore #1, Design #1 V0