

VERDAD RESOURCES

**WATTENBERG FIELD
8N-60W-14 SCHNEIDER 1414 PAD
SCHNEIDER 1414-01H**

**Plan C
Design #1**

Anticollision Summary Report

09 March, 2021

HP

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well SCHNEIDER 1414-01H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 20' @ 4963.00usft (RIG)
Reference Site:	8N-60W-14 SCHNEIDER 1414 PAD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	SCHNEIDER 1414-01H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan C	Database:	EDM 5000.16 Single User Db
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 centre distance of 1,500.00usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.45 Sigma	Casing Method:	Added to Error Values

Survey Tool Program	Date	3/9/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,700.00	Design #1 (Plan C)	ISCWSA MWD	Fixed:v2:standard declination	
1,700.00	11,290.33	Design #1 (Plan C)	ISCWSA MWD	Fixed:v2:standard declination	

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						
8N-60W-11 SONIC STAR 1101 PAD						
SONIC STAR 1101-01H - Plan B - Design #2						Out of range
SONIC STAR 1101-03H - Plan B - Design #2						Out of range
SONIC STAR 1101-05H - Plan B - Design #2						Out of range
SONIC STAR 1101-07H - Plan B - Design #2						Out of range
SONIC STAR 1101-09H - Plan B - Design #2						Out of range
SONIC STAR 1101-11H - Plan B - Design #2						Out of range
SONIC STAR 1101-13H - Plan B - Design #2						Out of range
SONIC STAR 1101-16H - Plan B - Design #2						Out of range
8N-60W-12 Offsets						
COLORADO NATIONAL BANK #1 - Shell P&A Well - No						Out of range
8N-60W-14 Offsets						
BOOMSLANG FED 8-60 14A-13-18-1 - Bison Planned W						Out of range
BOOMSLANG FED 8-60 14A-13-18-2 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14A-13-18-3 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14A-13-18-4 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14A-13-18-5 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14A-13-18-6 - Bison Planned W						Out of range
BOOMSLANG FED 8-60 14B-13-18-1 - Bison Planned W						Out of range
BOOMSLANG FED 8-60 14B-13-18-2 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14B-13-18-3 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14B-13-18-4 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14B-13-18-5 - Bison PR Well - A						Out of range
BOOMSLANG FED 8-60 14B-13-18-6 - Bison Planned W						Out of range
HNIZDIL 1-14 - Gemini D/A Well - No Surveys	10,851.45	6,067.00	1,028.74	708.80	3.215	CC
HNIZDIL 1-14 - Gemini D/A Well - No Surveys	10,900.00	6,067.00	1,029.89	708.13	3.201	ES
HNIZDIL 1-14 - Gemini D/A Well - No Surveys	11,000.00	6,067.00	1,039.41	714.65	3.201	SF
SCHNEIDER 1-14-8-60 - Verdad PR Well - Actual Precis	0.00	0.00	35.55			
SCHNEIDER 2-14-8-60 - Verdad PR Well - Actual Precis	260.00	259.00	20.53	8.42	1.695	CC
SCHNEIDER 2-14-8-60 - Verdad PR Well - Actual Precis	400.00	398.94	23.46	6.58	1.390	Level 3, ES, SF

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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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Offset Well - Wellbore - Design						
8N-60W-14 SCHNEIDER 1414 PAD						
SCHNEIDER 1414-02H - Plan C - Design #1	200.74	200.74	16.01	8.44	2.115	CC, ES
SCHNEIDER 1414-02H - Plan C - Design #1	260.00	259.90	16.07	8.45	2.110	SF
SCHNEIDER 1414-03H - Plan C - Design #1	200.00	200.00	32.01	24.44	4.230	CC, ES, SF
SCHNEIDER 1414-04H - Plan C - Design #1	200.00	200.00	48.02	40.45	6.345	CC, ES, SF
8N-60W-22 Offsets Incomplete						
HALE 8-60 22-23-1 - Bison Plan - Now PR - No COGCC	11,290.33	14,245.35	715.96	445.66	2.649	CC, ES, SF
8N-60W-26 Offsets Incomplete						
EWS 1B - Expedition Water Solutions Planned Well - Pla						Out of range
9N-60W-35 Offsets Incomplete						
PINTAIL FED 2-11-1HN - Mallard Planned Well - Planned						Out of range
PINTAIL FED 2-11-2HN - Mallard Planned Well - Planned	6,092.88	16,688.64	1,374.38	1,111.40	5.226	CC
PINTAIL FED 2-11-2HN - Mallard Planned Well - Planned	6,100.00	16,688.64	1,374.40	1,111.29	5.224	ES
PINTAIL FED 2-11-2HN - Mallard Planned Well - Planned	6,150.00	16,688.64	1,375.88	1,112.16	5.217	SF
PINTAIL FED 2-11-3HC - Mallard Planned Well - Planned	6,197.03	16,896.88	964.69	726.85	4.056	CC
PINTAIL FED 2-11-3HC - Mallard Planned Well - Planned	6,200.00	16,896.88	964.70	726.83	4.056	ES, SF
PINTAIL FED 2-11-4HN - Mallard Planned Well - Planned	6,129.37	16,704.43	744.91	501.57	3.061	CC, ES
PINTAIL FED 2-11-4HN - Mallard Planned Well - Planned	6,150.00	16,704.43	745.31	501.76	3.060	SF
PINTAIL FED 2-11-5HN - Mallard Planned Well - Planned	6,100.00	16,810.49	368.28	262.29	3.475	SF
PINTAIL FED 2-11-5HN - Mallard Planned Well - Planned	6,150.00	16,810.49	358.85	256.54	3.508	ES
PINTAIL FED 2-11-5HN - Mallard Planned Well - Planned	6,169.07	16,810.49	358.06	257.52	3.562	CC
PINTAIL FED 2-11-6HN - Mallard Planned Well - Planned	6,202.18	17,006.97	778.02	527.28	3.103	CC, ES, SF
PINTAIL FED 2-11-7HN - Mallard Planned Well - Planned	6,229.20	17,255.29	1,401.28	1,132.29	5.209	CC
PINTAIL FED 2-11-7HN - Mallard Planned Well - Planned	6,250.00	17,255.29	1,401.57	1,132.22	5.203	ES
PINTAIL FED 2-11-7HN - Mallard Planned Well - Planned	6,300.00	17,255.29	1,404.67	1,134.60	5.201	SF
PINTAIL FED 2-11-8HN - Mallard Planned Well - Planned						Out of range
PINTAIL FED 2-11-9HN - Mallard Planned Well - Planned						Out of range
PINTAIL FED 3-15-9HN - Mallard Planned Well - Planned						Out of range
Shull 1-35-9-60 - Carrizo PR Well - Actual Precision Surv						Out of range
Shull 2-35-9-60 - Verdad PR Well - Actual Precision Surv						Out of range
Shull 3-35-9-60 - Verdad PR Well - Actual Precision Surv						Out of range

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Reference Depths are relative to RKB = 20' @ 4963.00usft (RIG)

Offset Depths are relative to Offset Datum

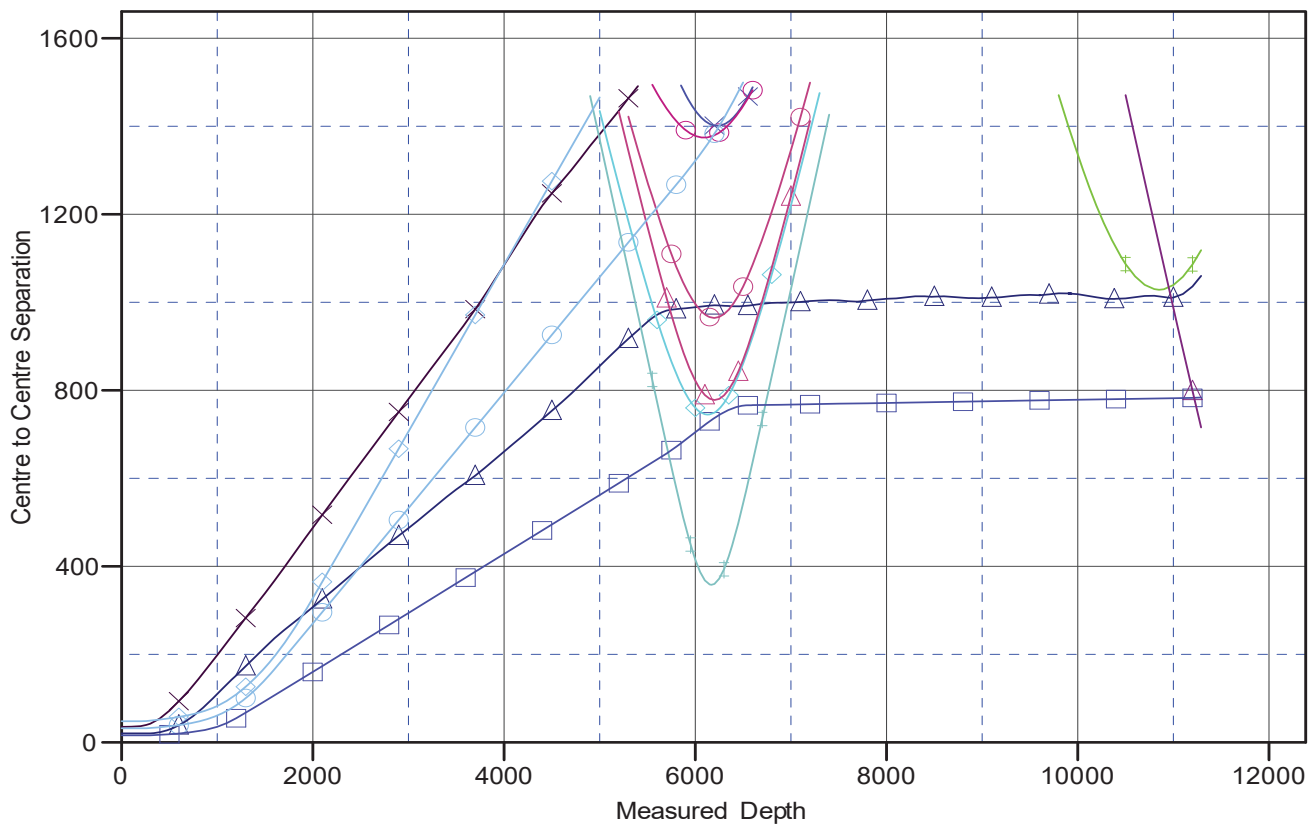
Central Meridian is -105.500000

Coordinates are relative to: SCHNEIDER 1414-01H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.93°

Ladder Plot



LEGEND

SCHNEIDER 1-14-8-60, Verdad PR Well, Actual Precision Surveys (Grid to True) V0	PINTAIL FED 2-11-6HN, Mallard Planned Well, Planned MWD Surveys V0	SCHNEIDER 1414-03H, Plan C, Design #1 V0
SCHNEIDER 2-14-8-60, Verdad PR Well, Actual Precision Surveys (Grid to True) V0	PINTAIL FED 2-11-2HN, Mallard Planned Well, Planned MWD Surveys V0	SCHNEIDER 1414-04H, Plan C, Design #1 V0
HNZDIL 1-14, Gemini D/A Well, No Surveys V0	PINTAIL FED 2-11-9HN, Mallard Planned Well, Planned MWD Surveys V0	HALE 8-6022-23-1, Bison Plan - New PR - No COGCC Actual Surveys, Planned MWD Surveys V0
PINTAIL FED 2-11-7HN, Mallard Planned Well, Planned MWD Surveys V0	PINTAIL FED 2-11-3HC, Mallard Planned Well, Planned MWD Surveys V0	
PINTAIL FED 2-11-4HN, Mallard Planned Well, Planned MWD Surveys V0	SCHNEIDER 1414-02H, Plan C, Design #1 V0	

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Offset Depths are relative to Offset Datum

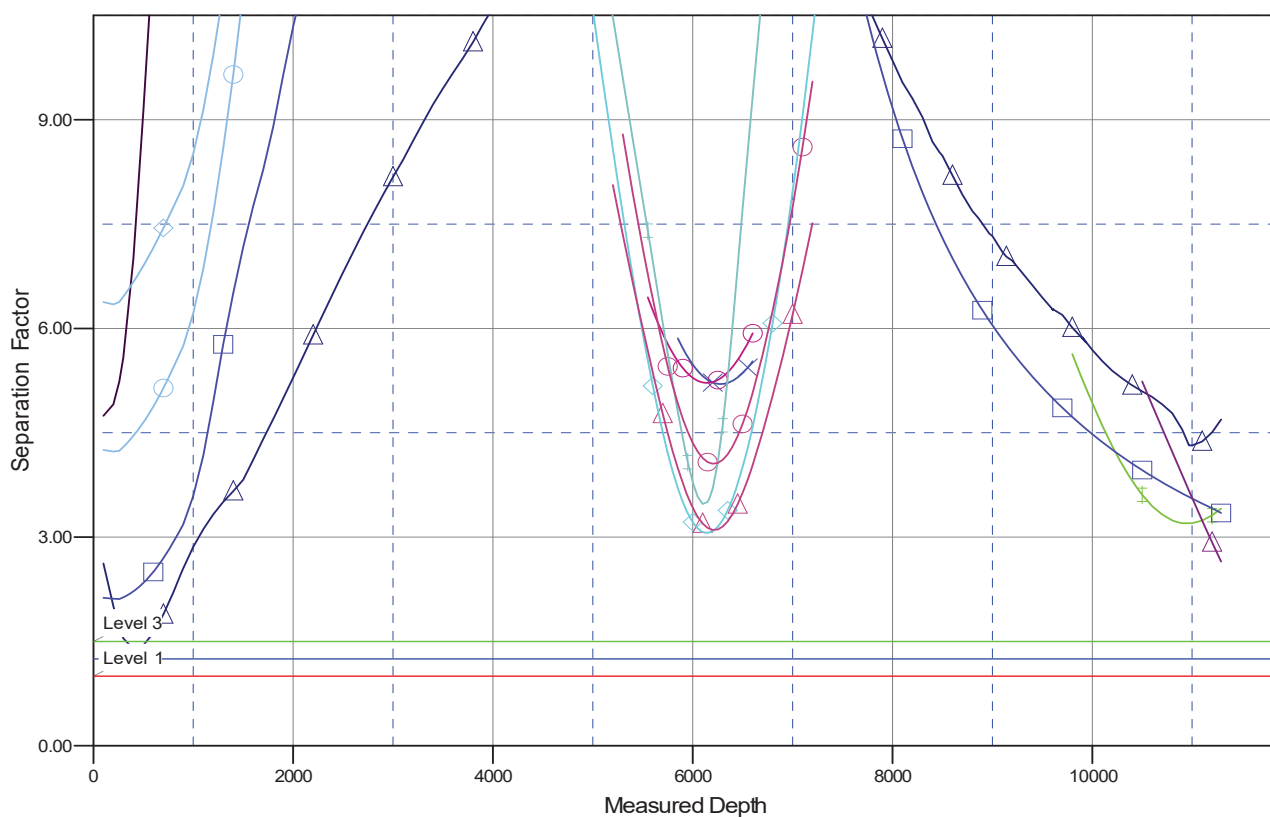
Central Meridian is -105.500000

Coordinates are relative to: SCHNEIDER 1414-01H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.93°

Separation Factor Plot



LEGEND

<ul style="list-style-type: none"> SCHNEIDER 1-14-8-60, Verdad PRWell, Actual Precision Surveys (Grid to True) V0 SCHNEIDER 2-14-8-60, Verdad PRWell, Actual Precision Surveys (Grid to True) V0 HNZDL 144, Gemini D/A Well, No Surveys V0 PINTAIL FED 2-11-7RH, Mallard Planned Well, Planned MWD Surveys V0 PINTAIL FED 2-11-4RH, Mallard Planned Well, Planned MWD Surveys V0 	<ul style="list-style-type: none"> PINTAIL FED 2-11-6RH, Mallard Planned Well, Planned MWD Surveys V0 PINTAIL FED 2-11-2RH, Mallard Planned Well, Planned MWD Surveys V0 PINTAIL FED 2-11-9RH, Mallard Planned Well, Planned MWD Surveys V0 PINTAIL FED 2-11-3RH, Mallard Planned Well, Planned MWD Surveys V0 SCHNEIDER 1414-02H, Plan C, Design #1 V0 	<ul style="list-style-type: none"> SCHNEIDER 1414-03H, Plan C, Design #1 V0 SCHNEIDER 1414-04H, Plan C, Design #1 V0 HALE 8-60-22-23-1, Bison Plan - New PR - No COGCC Actual Surveys, Planned MWD Surveys V0
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