

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**9N-60W-25 PEGGY 2501 PAD**

**PEGGY 2501-10H**

**Plan B**

**Design #1**

## **Anticollision Summary Report**

**08 October, 2021**

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well PEGGY 2501-10H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 16' @ 4910.00usft (RIG)
<b>Reference Site:</b>	9N-60W-25 PEGGY 2501 PAD	<b>MD Reference:</b>	RKB = 16' @ 4910.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PEGGY 2501-10H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	3.28 usft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Plan B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Design #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 1,500.00usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.45 Sigma	<b>Casing Method:</b>	Added to Error Values

<b>Survey Tool Program</b>	<b>Date</b>	10/8/2021		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	1,590.00	Design #1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination
1,590.00	14,302.08	Design #1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
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	14,302.08	14,602.03	860.92	483.54	2.281	CC, ES, SF
SONIC STAR 1101-07H - Plan B - Design #2	14,302.08	15,037.39	295.90	19.32	1.070	Level 2, CC, ES, SF
SONIC STAR 1101-09H - Plan B - Design #2	14,302.08	15,183.77	469.99	86.93	1.227	Level 2, CC, ES, SF
SONIC STAR 1101-11H - Plan B - Design #2	14,284.62	15,571.19	1,129.81	746.99	2.951	CC, ES, SF
SONIC STAR 1101-13H - Plan B - Design #2						Out of range
SONIC STAR 1101-16H - Plan B - Design #2						Out of range
9N-60W-25 Offsets						
Shull 1-25-9-60 - Verdad Original Well - Actual Precision						Out of range
Shull 1-25-9-60 - Verdad PR Sidetrack Well - Actual Prec						Out of range
Shull 2-25-9-60 - Verdad PR Well - Actual Precision Surv	6,149.53	6,002.00	976.99	945.26	30.788	CC
Shull 2-25-9-60 - Verdad PR Well - Actual Precision Surv	6,150.00	6,002.00	976.99	945.25	30.783	ES
Shull 2-25-9-60 - Verdad PR Well - Actual Precision Surv	6,791.31	5,917.00	1,143.03	1,100.14	26.654	SF
Shull 3-25-9-60 - Verdad PR Well - Actual Precision Surv	6,011.72	6,059.71	359.58	327.79	11.312	CC, ES
Shull 3-25-9-60 - Verdad PR Well - Actual Precision Surv	6,050.00	6,063.18	361.65	329.38	11.207	SF
Shull 4-25-9-60 - Verdad Original Wellbore - Actual Preci	4,100.00	4,129.00	659.87	589.94	9.437	SF
Shull 4-25-9-60 - Verdad Original Wellbore - Actual Preci	4,124.67	4,129.00	659.41	589.85	9.480	CC, ES
Shull 4-25-9-60 - Verdad PR Sidetrack Well - Actual Prec	6,032.37	6,171.61	53.10	18.11	1.517	CC, ES, SF
Shull 5-25-9-60 - Verdad PR Well - Actual Titan Surveys	159.52	153.52	1,273.59	1,266.05	168.866	CC, ES
Shull 5-25-9-60 - Verdad PR Well - Actual Titan Surveys	6,250.00	5,567.00	1,498.66	1,466.35	46.387	SF
Shull 6-25-9-60 - Verdad PR Well - Actual Titan Surveys	6,168.19	5,804.95	1,257.15	1,225.25	39.410	CC
Shull 6-25-9-60 - Verdad PR Well - Actual Titan Surveys	6,200.00	5,809.11	1,257.39	1,225.12	38.960	ES
Shull 6-25-9-60 - Verdad PR Well - Actual Titan Surveys	7,000.00	5,761.58	1,442.81	1,394.50	29.870	SF
Shull 7-25-9-60 - Verdad PR Well - Actual Titan Surveys	6,057.42	5,976.79	656.86	626.04	21.313	CC, ES
Shull 7-25-9-60 - Verdad PR Well - Actual Titan Surveys	6,250.00	5,958.35	683.89	650.87	20.710	SF
Shull 8-25-9-60 - Verdad PR Well - Actual Titan Surveys	5,991.02	6,015.14	53.01	21.07	1.660	CC, ES
Shull 8-25-9-60 - Verdad PR Well - Actual Titan Surveys	6,000.00	6,016.41	53.76	21.29	1.656	SF

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<b>Reference Site:</b>	9N-60W-25 PEGGY 2501 PAD	<b>MD Reference:</b>	RKB = 16' @ 4910.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	PEGGY 2501-10H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	3.28 usft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Plan B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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						
9N-60W-25 PEGGY 2501 PAD						
PEGGY 2501-01H - Verdad PR Well - Actual Baker Surve	0.00	8.00	84.27			
PEGGY 2501-01H - Verdad PR Well - Actual Baker Surve	100.00	107.98	84.28	76.75	11.187	ES
PEGGY 2501-01H - Verdad PR Well - Actual Baker Surve	300.00	306.65	85.12	77.44	11.085	SF
PEGGY 2501-02H - Verdad PR Well - Actual Baker Surve	131.52	139.52	64.10	56.55	8.496	CC, ES
PEGGY 2501-02H - Verdad PR Well - Actual Baker Surve	400.00	407.07	64.97	57.17	8.330	SF
PEGGY 2501-04H - Plan B - Design #1	483.00	483.00	48.01	40.09	6.056	CC, ES
PEGGY 2501-04H - Plan B - Design #1	500.00	500.00	48.06	40.11	6.039	SF
PEGGY 2501-06H - Plan B - Design #1	483.00	483.00	31.99	24.06	4.035	CC, ES
PEGGY 2501-06H - Plan B - Design #1	14,302.08	14,215.69	1,247.40	859.76	3.218	SF
PEGGY 2501-08H - Plan B - Design #1	483.00	482.00	16.00	8.07	2.018	CC, ES
PEGGY 2501-08H - Plan B - Design #1	14,302.08	14,231.29	623.91	235.79	1.608	SF
PEGGY 2501-12H - Plan B - Design #1	402.88	402.88	16.00	8.20	2.053	CC, ES
PEGGY 2501-12H - Plan B - Design #1	14,302.08	14,389.99	625.47	235.36	1.603	SF
PEGGY 2501-14H - Plan B - Design #1	313.89	312.89	31.99	24.32	4.170	CC
PEGGY 2501-14H - Plan B - Design #1	400.00	398.92	32.00	24.21	4.110	ES
PEGGY 2501-14H - Plan B - Design #1	14,302.08	14,554.66	1,251.06	860.23	3.201	SF
PEGGY 2501-16H - Plan B - Design #1	200.00	198.00	47.99	40.42	6.340	CC, ES, SF
9N-60W-36 Offsets						
STATE-HUSKY #1 - Bennett D/A Well - No Surveys	6,913.07	6,176.00	77.14	-167.73	0.315	Level 1, CC, ES, SF

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<b>Reference Well:</b>	PEGGY 2501-10H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	3.28 usft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Plan B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB = 16' @ 4910.00usft (RIG)

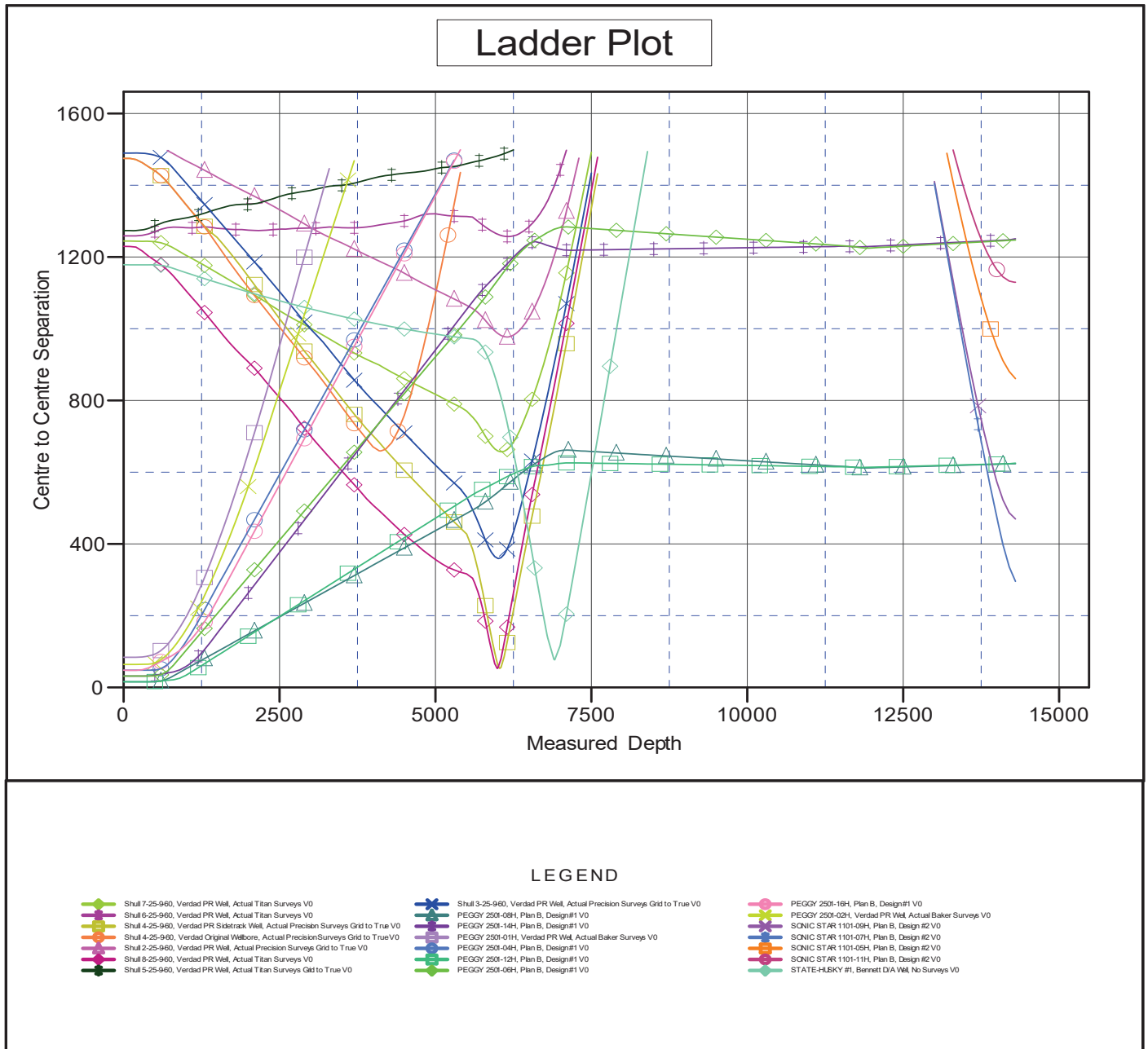
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: PEGGY 2501-10H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.94°



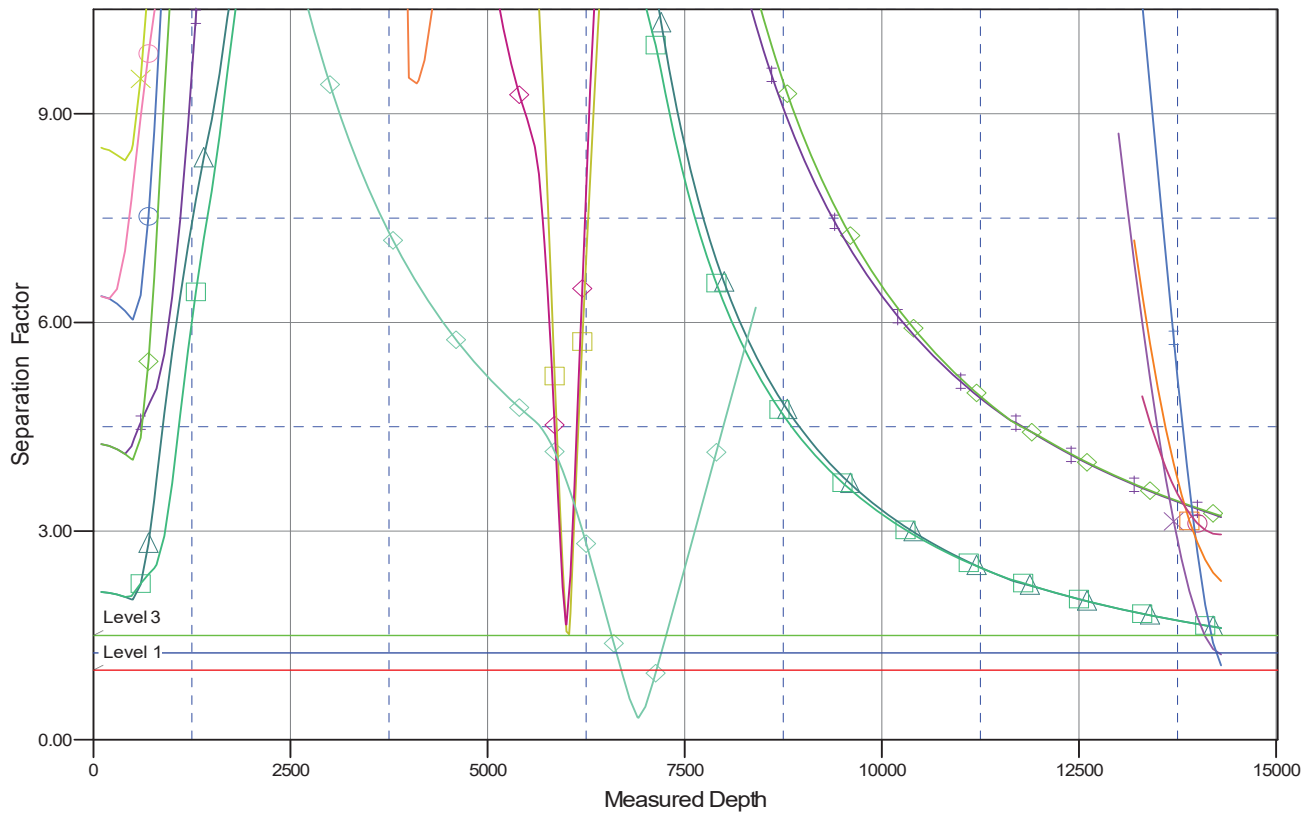
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<b>Reference Wellbore</b>	Plan B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB = 16' @ 4910.00usft (RIG)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000

Coordinates are relative to: PEGGY 2501-10H  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.94°

### Separation Factor Plot



#### LEGEND

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| <ul style="list-style-type: none"> <li>Shul 7-25-960, Verdad PR Well, Actual T1an Surveys V0</li> <li>Shul 6-25-960, Verdad PR Well, Actual T1an Surveys V0</li> <li>Shul 4-25-960, Verdad PR Sidetrack Well, Actual Precision Surveys Grid to True V0</li> <li>Shul 4-25-960, Verdad Original Wellbore, Actual Precision Surveys Grid to True V0</li> <li>Shul 2-25-960, Verdad PR Well, Actual Precision Surveys Grid to True V0</li> <li>Shul 5-25-960, Verdad PR Well, Actual T1an Surveys V0</li> <li>Shul 5-25-960, Verdad PR Well, Actual T1an Surveys Grid to True V0</li> </ul> | <ul style="list-style-type: none"> <li>Shul 3-25-960, Verdad PR Well, Actual Precision Surveys Grid to True V0</li> <li>PEGGY 2501-08H, Plan B, Design#1 V0</li> <li>PEGGY 2501-14H, Plan B, Design#1 V0</li> <li>PEGGY 2501-01H, Verdad PR Well, Actual Baker Surveys V0</li> <li>PEGGY 2501-04H, Plan B, Design#1 V0</li> <li>PEGGY 2501-12H, Plan B, Design#1 V0</li> <li>PEGGY 2501-09H, Plan B, Design#1 V0</li> </ul> | <ul style="list-style-type: none"> <li>PEGGY 2501-16H, Plan B, Design#1 V0</li> <li>PEGGY 2501-02H, Verdad PR Well, Actual Baker Surveys V0</li> <li>SONIC STAR 1101-09H, Plan B, Design #2 V0</li> <li>SONIC STAR 1101-07H, Plan B, Design #2 V0</li> <li>SONIC STAR 1101-09H, Plan B, Design #2 V0</li> <li>SONIC STAR 1101-11H, Plan B, Design #2 V0</li> <li>STATE-HUSKY #1, Bennett D/A Well, No Surveys V0</li> </ul> |
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