

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
2N-64W-28 GEORGENE PAD  
GEORGENE 2833-02H**

**Wellbore #1  
Design #3**

## **Anticollision Summary Report**

**17 September, 2020**

# HP

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well GEORGENE 2833-02H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 24' @ 5042.00usft (RIG)
<b>Reference Site:</b>	2N-64W-28 GEORGENE PAD	<b>MD Reference:</b>	RKB = 24' @ 5042.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GEORGENE 2833-02H	<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>	Wellbore #1	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #3	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	<b>Date</b>	9/17/2020
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>
0.00	1,700.00	Design #3 (Wellbore #1)
1,700.00	12,294.60	Design #3 (Wellbore #1)
		<b>Tool Name</b>
		ISCWSA MWD
		ISCWSA MWD
		<b>Description</b>
		Fixed:v2:standard declination
		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						
1N-64W-05 Offsets						
BROOKMAN #1 - Bill Barrett PR Well - No Surveys						Out of range
Grinde #01-64-05-3340B - Highpoint Planned Well - Plan						Out of range
Grinde #01-64-05-4841B - Highpoint Planned Well - Plan						Out of range
Grinde #01-64-05-4841C - Highpoint Planned Well - Plan						Out of range
Grinde #01-64-05-6457CB - Highpoint Planned Well - Me						Out of range
GRINDE 01-64-05 0108C - Highpoint Planned Well - Drill	12,294.60	16,437.38	941.80	602.56	2.776	CC, ES, SF
2N-64W-28 GEORGENE PAD						
GEORGENE 2828-01H - Wellbore #1 - Design #2	200.00	198.00	90.00	82.44	11.895	CC, ES
GEORGENE 2828-01H - Wellbore #1 - Design #2	7,000.00	8,104.09	366.89	314.22	6.965	SF
GEORGENE 2828-02H - Wellbore #1 - Design #2	300.00	298.00	75.00	67.34	9.801	CC, ES, SF
GEORGENE 2828-03H - Wellbore #1 - Design #2	400.00	398.00	60.00	52.22	7.712	CC, ES, SF
GEORGENE 2828-04H - Wellbore #1 - Design #2	500.00	499.00	44.99	37.03	5.658	CC, ES, SF
GEORGENE 2833-01H - Wellbore #1 - Design #3	650.00	650.00	15.02	6.74	1.814	CC
GEORGENE 2833-01H - Wellbore #1 - Design #3	700.00	700.00	15.07	6.67	1.794	ES, SF
GEORGENE 2833-03H - Wellbore #1 - Design #3	547.71	546.77	14.53	6.49	1.807	CC, ES, SF
GEORGENE 2833-04H - Wellbore #1 - Design #3	452.63	451.96	27.89	20.02	3.543	CC, ES, SF

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<b>Reference Well:</b>	GEORGENE 2833-02H	<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>	Wellbore #1	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #3	<b>Offset TVD Reference:</b>	Offset Datum

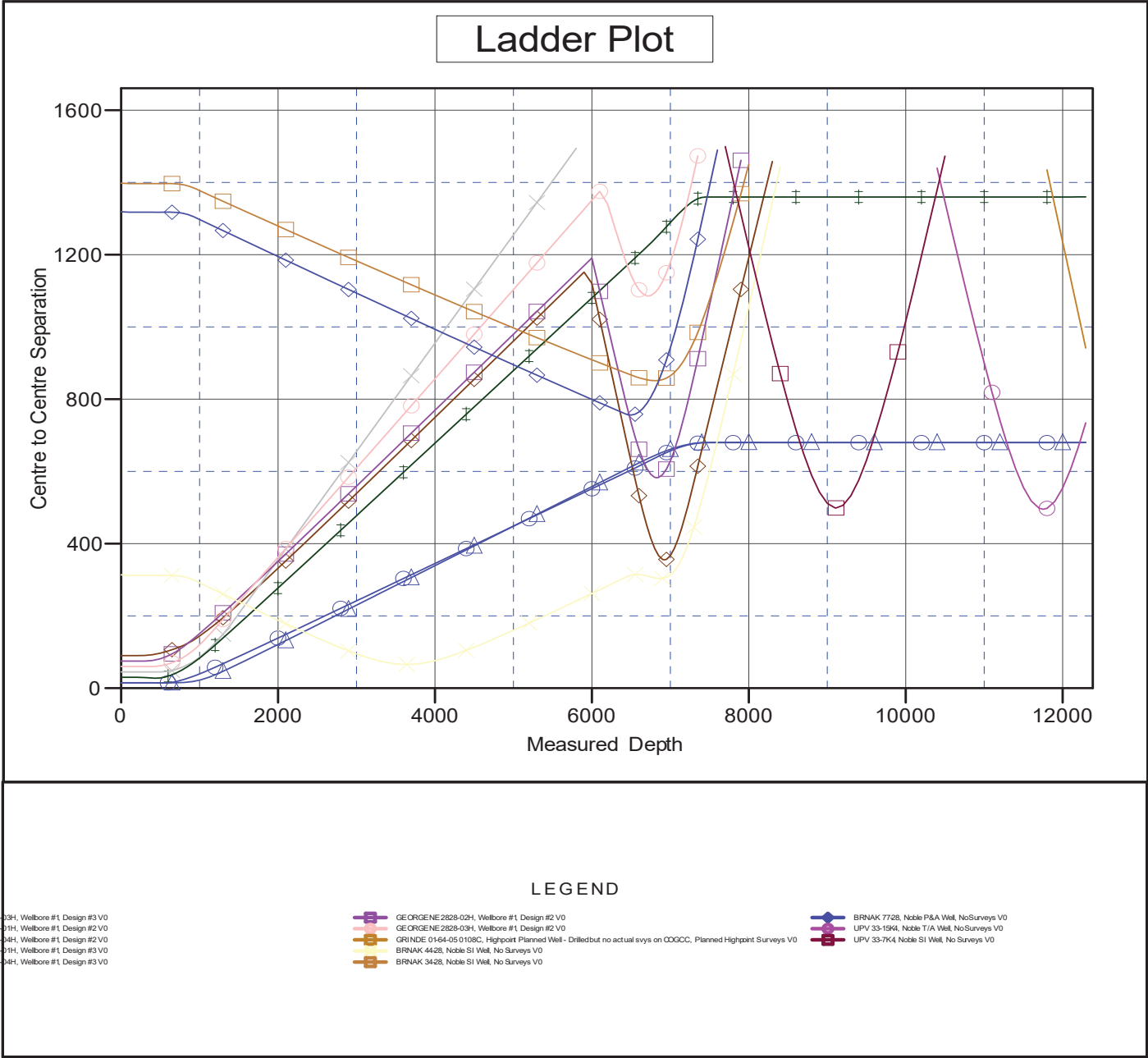
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
2N-64W-28 Offsets Incomplete						
BRNAK 34-28 - Noble SI Well - No Surveys	6,802.88	6,703.36	851.42	598.70	3.369	CC
BRNAK 34-28 - Noble SI Well - No Surveys	6,850.00	6,743.46	852.07	598.08	3.355	ES
BRNAK 34-28 - Noble SI Well - No Surveys	6,900.00	6,783.90	854.35	599.06	3.347	SF
BRNAK 44-28 - Noble SI Well - No Surveys	3,641.13	3,592.95	65.65	-70.72	0.481	Level 1, CC
BRNAK 44-28 - Noble SI Well - No Surveys	3,700.00	3,651.47	65.96	-72.63	0.476	Level 1, SF
BRNAK 44-28 - Noble SI Well - No Surveys	3,900.00	3,850.31	71.32	-74.57	0.489	Level 1, ES
BRNAK 77-28 - Noble P&A Well - No Surveys	6,494.39	6,401.74	756.20	514.00	3.122	CC
BRNAK 77-28 - Noble P&A Well - No Surveys	6,500.00	6,407.33	756.22	513.81	3.120	ES
BRNAK 77-28 - Noble P&A Well - No Surveys	6,550.00	6,457.02	758.53	514.21	3.105	SF
GREER 13-28 - Noble SI Well - No Surveys						Out of range
GREER 14-28 - Noble T/A Well - No Surveys						Out of range
GREER 23-28 - Noble SI Well - No Surveys						Out of range
GREER 24-28 - Noble T/A Well - No Surveys						Out of range
STONEBRAKER 32-28 - PDC P&A Well - No Surveys						Out of range
STONEBRAKER 42-28 - PDC P&A Well - No Surveys						Out of range
STONEBREAKER 28V-234 - PDC PR Well - Actual Ensig						Out of range
STONEBREAKER 28W-304 - PDC PR Well - Actual Ens						Out of range
2N-64W-33 Offsets						
JACKSON 33-1H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-2H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-3H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-4H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-5H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-6H - Verdad PR Well - Actual BHI Surveys						Out of range
JACKSON 33-7H - Verdad PR Well - Actual BHI Surveys						Out of range
JACKSON 33-S1H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-S2H - Verdad Planned Well - Surcon MWD						Out of range
UPV 33-13K4 - Noble SI Well - No Surveys						Out of range
UPV 33-15K4 - Noble T/A Well - No Surveys	11,752.03	7,064.00	495.51	136.96	1.382	Level 3, CC, ES, SF
UPV 33-7K4 - Noble SI Well - No Surveys	9,113.90	7,068.00	499.01	200.67	1.673	CC, ES, SF
2N-64W-34 Offsets Incomplete						
FRITZLER 12-34 - Noble PR Well - Actual VES Surveys						Out of range
Shufly State Y34-784 - Noble Planned Well - Planned Su						Out of range

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Reference Depths are relative to RKB = 24' @ 5042.00usft (RIG)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: GEORGENE 2833-02H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.61°



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