

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-10 TIGER 0916 PAD

TIGER 0916-05H

Wellbore #1

Design #1

Anticollision Summary Report

27 December, 2022

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well TIGER 0916-05H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 5129.00usft (RIG)
Reference Site:	1N-64W-10 TIGER 0916 PAD	MD Reference:	RKB = 24' @ 5129.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	TIGER 0916-05H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	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	12/27/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	2,470.88	Design #1 (Wellbore #1)	ISCWSA MWD	Fixed:v2:standard declination
2,470.88	18,382.44	Design #1 (Wellbore #1)	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						
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	7,649.83	15,356.74	1,299.01	931.76	3.537	CC
Grinde #01-64-05-4841B - Highpoint Planned Well - Plan	7,650.00	15,356.65	1,299.01	931.75	3.537	ES
Grinde #01-64-05-4841B - Highpoint Planned Well - Plan	7,700.00	15,330.97	1,301.69	932.30	3.524	SF
Grinde #01-64-05-4841C - Highpoint Planned Well - Plan						Out of range
GRINDE 01-64-05 0108C - HPR PR Well - Actual Atlas S						Out of range
GRINDE 01-64-05-4956C - HPR PR Well - Actual Atlas S	7,727.40	15,450.23	849.27	496.44	2.407	CC
GRINDE 01-64-05-4956C - HPR PR Well - Actual Atlas S	7,750.00	15,441.42	849.90	494.28	2.390	ES
GRINDE 01-64-05-4956C - HPR PR Well - Actual Atlas S	7,800.00	15,422.31	855.82	494.68	2.370	SF
GRINDE 01-64-05-6457B - HPR PR Well - Actual Atlas S	7,832.82	15,458.15	437.14	112.42	1.346	Level 3, CC
GRINDE 01-64-05-6457B - HPR PR Well - Actual Atlas S	7,900.00	15,429.56	444.69	98.70	1.285	Level 3, ES, SF
GRINDE 01-64-05-6457CB - HPR PR Well - Actual Atlas	8,081.53	15,545.46	83.11	-154.09	0.350	Level 1, CC
GRINDE 01-64-05-6457CB - HPR PR Well - Actual Atlas	8,100.00	15,539.38	85.15	-202.30	0.296	Level 1, SF
GRINDE 01-64-05-6457CB - HPR PR Well - Actual Atlas	8,150.00	15,524.03	108.08	-251.51	0.301	Level 1, ES
1N-64W-09 Offsets						
MCMILLAN #1 - Rock Oil D/A Well - No Surveys						Out of range
1N-64W-10 BRNAK EAST PAD						
BRNAK EAST 1015-01H - Plan A - Design #1						Out of range
BRNAK EAST 1015-02H - Plan A - Design #1						Out of range
BRNAK EAST 1015-03H - Wellbore #1 - Design #1						Out of range
BRNAK EAST 1015-04H - Plan A - Design #1						Out of range
BRNAK EAST 1015-05H - Plan A - Design #1						Out of range
BRNAK EAST 1015-06H - Plan A - Design #1						Out of range
BRNAK EAST 1015-07H - Plan A - Design #1						Out of range

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Reference Well:	TIGER 0916-05H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.16 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	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						
1N-64W-10 Offsets						
BRNAK #21-10 - Goodwin PR Well - No Surveys	300.75	291.75	763.16	749.86	57.342	CC
BRNAK #21-10 - Goodwin PR Well - No Surveys	400.00	390.98	764.69	747.98	45.743	ES
BRNAK #21-10 - Goodwin PR Well - No Surveys	2,500.00	2,319.78	1,470.61	1,379.10	16.070	SF
BRNAK #32-10 - Toltek D/A Well - No Surveys						Out of range
BRNAK 01-64-10-1H - VERDAD PR Well - Actual BKR S	1,431.47	1,397.71	18.70	5.15	1.380	Level 3, CC, ES, SF
BRNAK 01-64-10-2H - VERDAD PR Well - Actual BKR S	1,356.09	1,327.37	59.52	46.86	4.699	CC, ES
BRNAK 01-64-10-2H - VERDAD PR Well - Actual BKR S	1,400.00	1,370.13	60.36	47.01	4.520	SF
BRNAK 01-64-10-3H - VERDAD PR Well - Actual BKR S	1,092.54	1,070.51	53.80	43.62	5.283	CC
BRNAK 01-64-10-3H - VERDAD PR Well - Actual BKR S	1,100.00	1,077.80	53.82	43.57	5.252	ES
BRNAK 01-64-10-3H - VERDAD PR Well - Actual BKR S	1,200.00	1,175.78	57.38	46.14	5.105	SF
1N-64W-10 TIGER 0916 PAD						
TIGER 0916-01H - Wellbore #1 - Design #1	200.00	200.00	64.09	56.52	8.469	CC, ES
TIGER 0916-01H - Wellbore #1 - Design #1	2,100.00	2,048.75	127.03	103.94	5.502	SF
TIGER 0916-02H - Wellbore #1 - Design #1	200.00	200.00	48.14	40.57	6.361	CC, ES
TIGER 0916-02H - Wellbore #1 - Design #1	2,000.00	1,958.78	88.83	72.40	5.406	SF
TIGER 0916-03H - Wellbore #1 - Design #1	206.30	206.30	32.18	24.61	4.251	CC, ES
TIGER 0916-03H - Wellbore #1 - Design #1	18,383.02	19,072.20	1,295.54	814.24	2.692	SF
TIGER 0916-04H - Wellbore #1 - Design #1	205.86	205.86	15.95	8.38	2.107	CC, ES
TIGER 0916-04H - Wellbore #1 - Design #1	18,383.02	18,715.32	678.71	197.47	1.410	Level 3, SF
TIGER 0916-06H - Wellbore #1 - Design #1	300.75	300.75	15.95	8.30	2.084	CC, ES
TIGER 0916-06H - Wellbore #1 - Design #1	18,383.02	18,095.13	616.78	137.44	1.287	Level 3, SF
TIGER 0916-07H - Wellbore #1 - Design #1	300.75	300.75	31.90	24.25	4.168	CC, ES
TIGER 0916-07H - Wellbore #1 - Design #1	18,383.02	17,849.53	1,233.84	754.61	2.575	SF
TIGER 0916-08H - Wellbore #1 - Design #1	300.75	300.75	47.86	40.20	6.253	CC, ES, SF
1N-64W-16 Offsets						
EAST HUDSON B STATE #1-16 - Gusher Oil & Gas P/A						Out of range
STATE #1 - Karen Oil D/A Well - No Surveys	16,987.38	7,160.00	273.62	-186.02	0.595	Level 1, CC, ES, SF
STATE #14-16 - Kaiser-Francis Oil P/A Well - No Survey						Out of range
TURECEK STATE 16-1H - VERDAD PR Well - Actual M	18,032.36	11,530.00	677.76	328.90	1.943	CC, ES, SF

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Reference Wellbore	Wellbore #1	Database:	EDM 5000.16 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 24' @ 5129.00usft (RIG)

Offset Depths are relative to Offset Datum

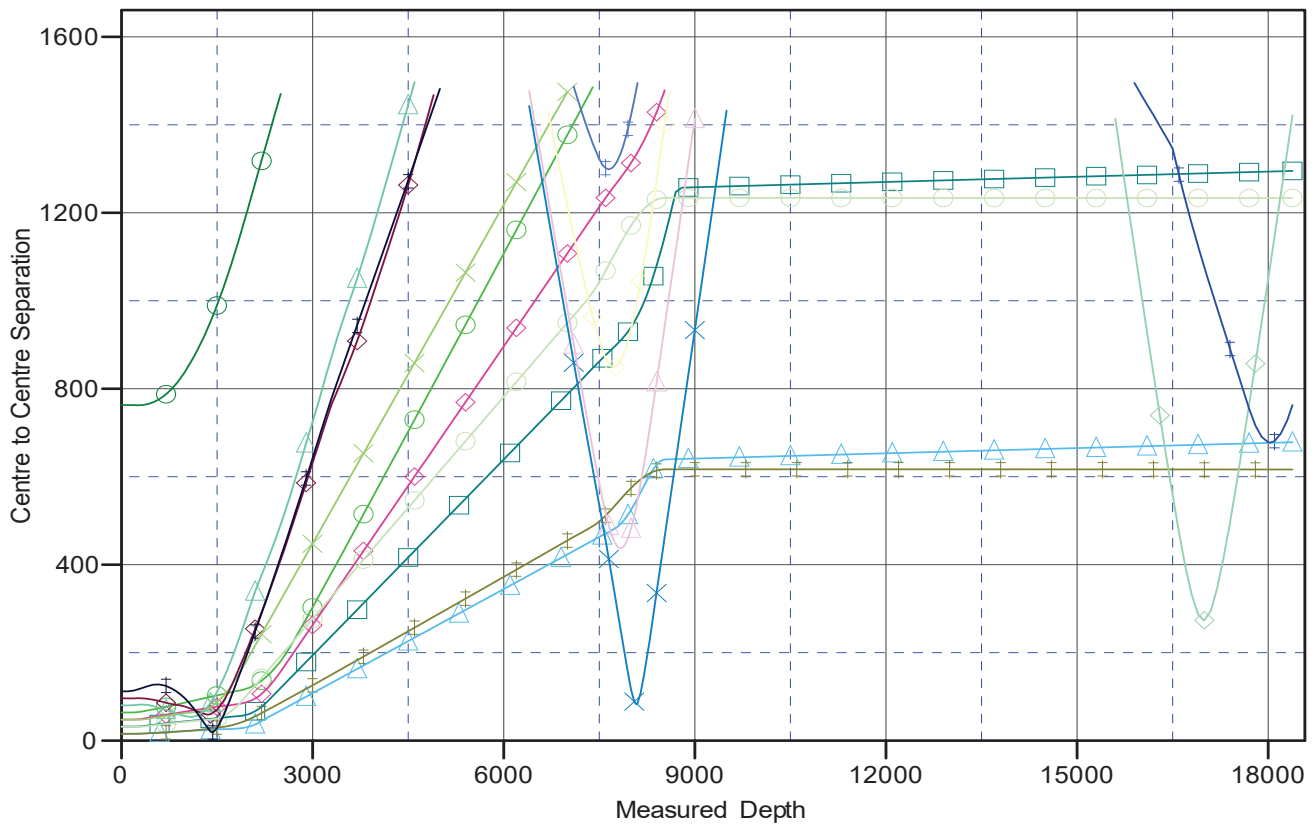
Central Meridian is -105.500000

Coordinates are relative to: TIGER 0916-05H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.62°

Ladder Plot



LEGEND

TIGER 091601H, Wellbore #1, Design #1 V0	TIGER 091605H, Wellbore #1, Design #1 V0	BRNAK 0164-10-2H, VERDAD PR Well, Actual BKR Surveys V0
TIGER 091603H, Wellbore #1, Design #1 V0	GRINDE 0164-05-6457C, HPR PR Well, Actual Atlas Surveys V0	BRNAK 0164-10-3H, VERDAD PR Well, Actual BKR Surveys V0
TIGER 091602H, Wellbore #1, Design #1 V0	GRINDE 0164-05-6456C, HPR PR Well, Actual Atlas Surveys V0	BRNAK 0164-10-1H, VERDAD PR Well, Actual BKR Surveys V0
TIGER 091608H, Wellbore #1, Design #1 V0	GRINDE 0164-05-6457B, HPR PR Well, Actual Atlas Surveys V0	STATE #1, Karen Old'A Well, No Surveys V0
TIGER 091604H, Wellbore #1, Design #1 V0	Grinde #01-04-05-4841B, Highpoint Planned Well, Planned Meriwether Surveys V0	TURECEK STATE 16-1H, VERDAD PR Well, Actual MS Directional Surveys V0
TIGER 091607H, Wellbore #1, Design #1 V0	BRNAK #21-10, Goodwin PR Well, No Surveys V0	

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Offset Depths are relative to Offset Datum

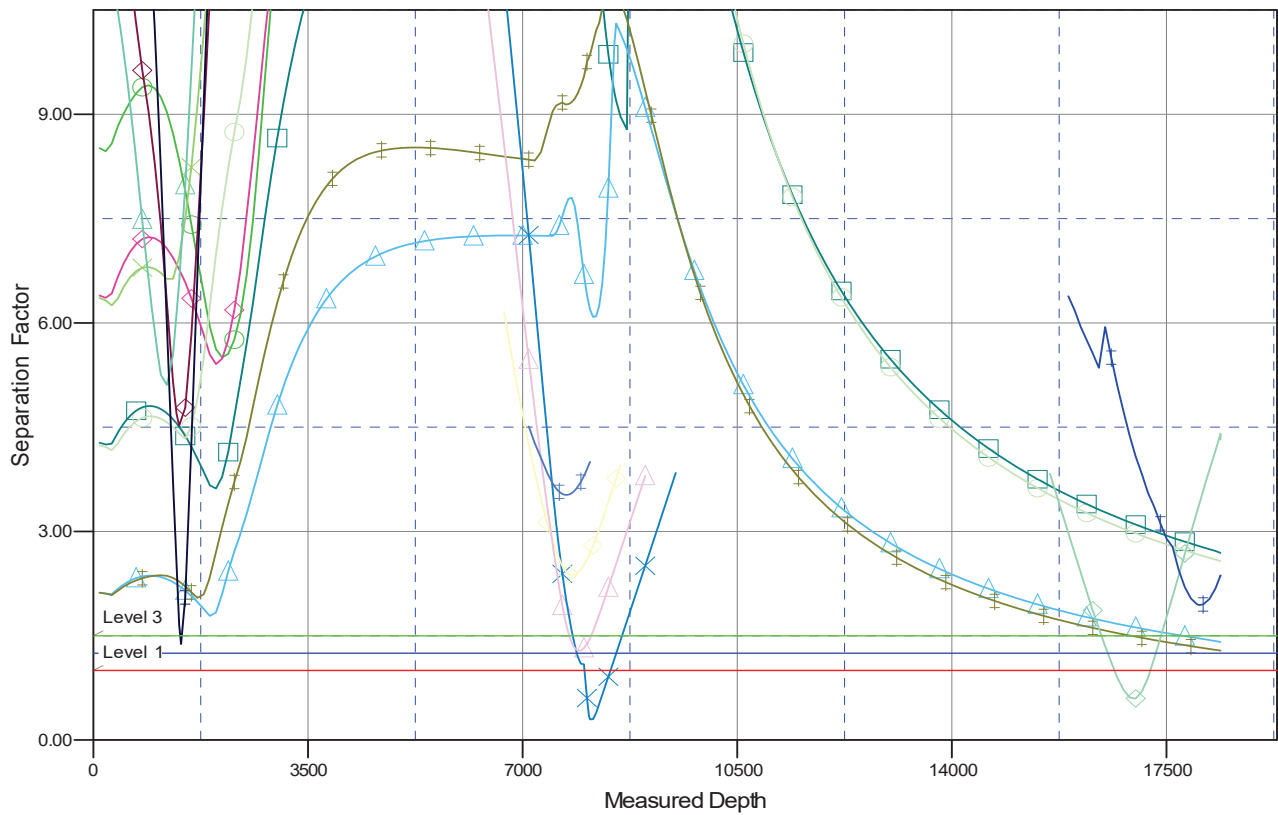
Central Meridian is -105.500000

Coordinates are relative to: TIGER 0916-05H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.62°

Separation Factor Plot



LEGEND

TIGER 091601H, Wellbore #1, Design #1 V0	TIGER 091606H, Wellbore #1, Design #1 V0	BRNAK 0164-10-24, VERDAD PR Well, Actual BKR Surveys V0
TIGER 091603H, Wellbore #1, Design #1 V0	GRINDE 0164-05-6457CB, HPR PR Well, Actual Atlas Surveys V0	BRNAK 0164-10-34, VERDAD PR Well, Actual BKR Surveys V0
TIGER 091602H, Wellbore #1, Design #1 V0	GRINDE 0164-05-6456C, HPR PR Well, Actual Atlas Surveys V0	BRNAK 0164-10-1H, VERDAD PR Well, Actual BKR Surveys V0
TIGER 091608H, Wellbore #1, Design #1 V0	GRINDE 0164-05-6457B, HPR PR Well, Actual Atlas Surveys V0	STATE #1, Karen Old'A Well, No Surveys V0
TIGER 091604H, Wellbore #1, Design #1 V0	Grinde #01-64-05-4841B, Highpoint Planned Well, Planned Meriwether Surveys V0	TURECEK STATE 16-1H, VERDAD PR Well, Actual MS Directional Surveys V0
TIGER 091607H, Wellbore #1, Design #1 V0	BRNAK #21-10, Goodwin PR Well, No Surveys V0	