

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 ONION 1907 PAD

ONION 1907-01H

Plan A

Design #1

Anticollision Summary Report

16 March, 2022

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well ONION 1907-01H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Reference Site:	1N-64W-19 ONION 1907 PAD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ONION 1907-01H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan A	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	3/16/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	2,156.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination	
2,156.00	20,131.03	Design #1 (Plan A)	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-06 Offsets Incomplete						
FLANIGAN 1A-6H - CPR PR Well - Actual Cathedral Sur						Out of range
FLANIGAN 1B-6H - CPR PR Well - Actual Cathedral Sur						Out of range
FLANIGAN 1C-6H - CPR SI Well - Actual Cathedral Surv						Out of range
FLANIGAN 1D-6H - CPR SI Well - Actual Cathedral Surv						Out of range
FLANIGAN 2A-6H - CPR SI Well - Actual Cathedral Surv	20,132.02	11,345.00	915.25	721.41	4.722	CC, ES, SF
FLANIGAN 2B-6H - CPR PR Well - Actual Cathedral Sur	20,132.02	11,495.00	1,348.38	993.62	3.801	CC, ES, SF
1N-64W-07 Offsets						
UPRR 52 PAN AM #1 - AMOCO DA Well - No Surveys						Out of range
1N-64W-19 BERG 1930 PAD						
BERG 1930-01H - Wellbore #1 - Design #1	200.00	200.00	202.47	194.90	26.756	CC, ES
BERG 1930-01H - Wellbore #1 - Design #1	300.00	298.96	203.26	195.61	26.570	SF
BERG 1930-02H - Wellbore #1 - Design #1	237.00	237.00	188.43	180.84	24.814	CC, ES
BERG 1930-02H - Wellbore #1 - Design #1	300.00	299.53	189.05	181.40	24.710	SF
BERG 1930-03H - Wellbore #1 - Design #1	237.00	237.00	174.74	167.14	23.010	CC, ES
BERG 1930-03H - Wellbore #1 - Design #1	300.00	299.99	175.31	167.66	22.910	SF
BERG 1930-04H - Wellbore #1 - Design #1	237.00	237.00	161.41	153.82	21.256	CC, ES
BERG 1930-04H - Wellbore #1 - Design #1	300.00	299.99	162.01	154.36	21.172	SF
BERG 1930-05H - Wellbore #1 - Design #1	237.00	237.00	148.67	141.08	19.578	CC, ES
BERG 1930-05H - Wellbore #1 - Design #1	300.00	299.99	149.29	141.64	19.509	SF
BERG 1930-06H - Wellbore #1 - Design #1	237.00	237.00	136.61	129.02	17.990	CC, ES
BERG 1930-06H - Wellbore #1 - Design #1	300.00	299.99	137.25	129.60	17.936	SF

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Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan A	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-19 GOURD 1930 PAD						
GOURD 1930-01H - Wellbore #1 - Design #1	2,593.26	2,604.01	81.99	62.73	4.256	CC, ES
GOURD 1930-01H - Wellbore #1 - Design #1	7,100.00	7,154.31	141.20	92.65	2.909	SF
GOURD 1930-02H - Wellbore #1 - Design #1	2,399.74	2,411.24	32.41	17.41	2.161	CC
GOURD 1930-02H - Wellbore #1 - Design #1	2,400.00	2,411.51	32.41	17.41	2.161	ES
GOURD 1930-02H - Wellbore #1 - Design #1	2,500.00	2,511.09	33.66	17.45	2.077	SF
GOURD 1930-03H - Wellbore #1 - Design #1	1,547.57	1,559.12	91.57	79.33	7.480	CC
GOURD 1930-03H - Wellbore #1 - Design #1	1,600.00	1,611.13	91.81	79.32	7.355	ES
GOURD 1930-03H - Wellbore #1 - Design #1	1,700.00	1,710.34	93.55	80.58	7.213	SF
GOURD 1930-04H - Wellbore #1 - Design #1	1,125.05	1,136.94	103.43	93.22	10.136	CC, ES
GOURD 1930-04H - Wellbore #1 - Design #1	1,300.00	1,309.17	107.90	96.87	9.786	SF
GOURD 1930-05H - Wellbore #1 - Design #1	871.07	882.10	89.70	80.54	9.787	CC, ES
GOURD 1930-05H - Wellbore #1 - Design #1	1,000.00	1,007.67	94.35	84.57	9.654	SF
GOURD 1930-06H - Wellbore #1 - Design #1	745.92	756.17	79.85	71.13	9.154	CC, ES
GOURD 1930-06H - Wellbore #1 - Design #1	800.00	808.16	81.22	72.24	9.047	SF
1N-64W-19 Offsets						
STEVENS #1 - KPK P/A Well - No Surveys						Out of range
WEIMER #1 - Petro-American Energy D/A Well - No Surv						Out of range
1N-64W-19 ONION 1907 PAD						
ONION 1907-02H - Plan A - Design #1	393.19	393.96	15.54	7.78	2.002	CC
ONION 1907-02H - Plan A - Design #1	20,132.02	20,067.62	516.07	-111.52	0.822	Level 1, ES, SF
ONION 1907-03H - Plan A - Design #1	237.00	237.00	32.01	24.41	4.215	CC, ES
ONION 1907-03H - Plan A - Design #1	20,132.02	20,052.15	1,032.15	405.47	1.647	SF
ONION 1907-04H - Plan A - Design #1	200.00	200.00	47.99	40.43	6.342	CC, ES
ONION 1907-04H - Plan A - Design #1	237.00	236.81	48.06	40.46	6.329	SF
ONION 1907-05H - Plan A - Design #1	237.00	237.00	63.98	56.39	8.426	CC, ES, SF
ONION 1907-06H - Plan A - Design #1	237.00	237.00	80.00	72.40	10.535	CC, ES, SF
ONION 1907-07H - Plan A - Design #1	237.00	237.00	95.99	88.39	12.640	CC, ES
ONION 1907-07H - Plan A - Design #1	300.00	299.99	96.62	88.97	12.627	SF
ONION 1907-08H - Plan A - Design #1	237.00	237.00	112.00	104.41	14.749	CC, ES
ONION 1907-08H - Plan A - Design #1	300.00	299.99	112.64	104.98	14.720	SF
ONION 1907-9H - Plan A - Design #1	237.00	237.00	127.99	120.40	16.855	CC, ES
ONION 1907-9H - Plan A - Design #1	300.00	299.99	128.62	120.97	16.809	SF
1N-65W-12 SAFI 1224 PAD						
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys	10,831.68	12,322.55	482.66	252.95	2.101	CC
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys	10,900.00	12,263.00	483.44	252.10	2.090	ES, SF
1N-65W-12 WUERTZ 1201 PAD						
WUERTZ 1201-18H - Plan B - Actual SLB Surface Surve						Out of range
WUERTZ 1201-18H - Plan B - Design #1	15,642.20	7,882.82	941.43	707.39	4.022	CC
WUERTZ 1201-18H - Plan B - Design #1	20,132.02	12,363.27	985.01	563.13	2.335	ES, SF

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Reference Well:	ONION 1907-01H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 24' @ 5035.00usft (RIG)

Offset Depths are relative to Offset Datum

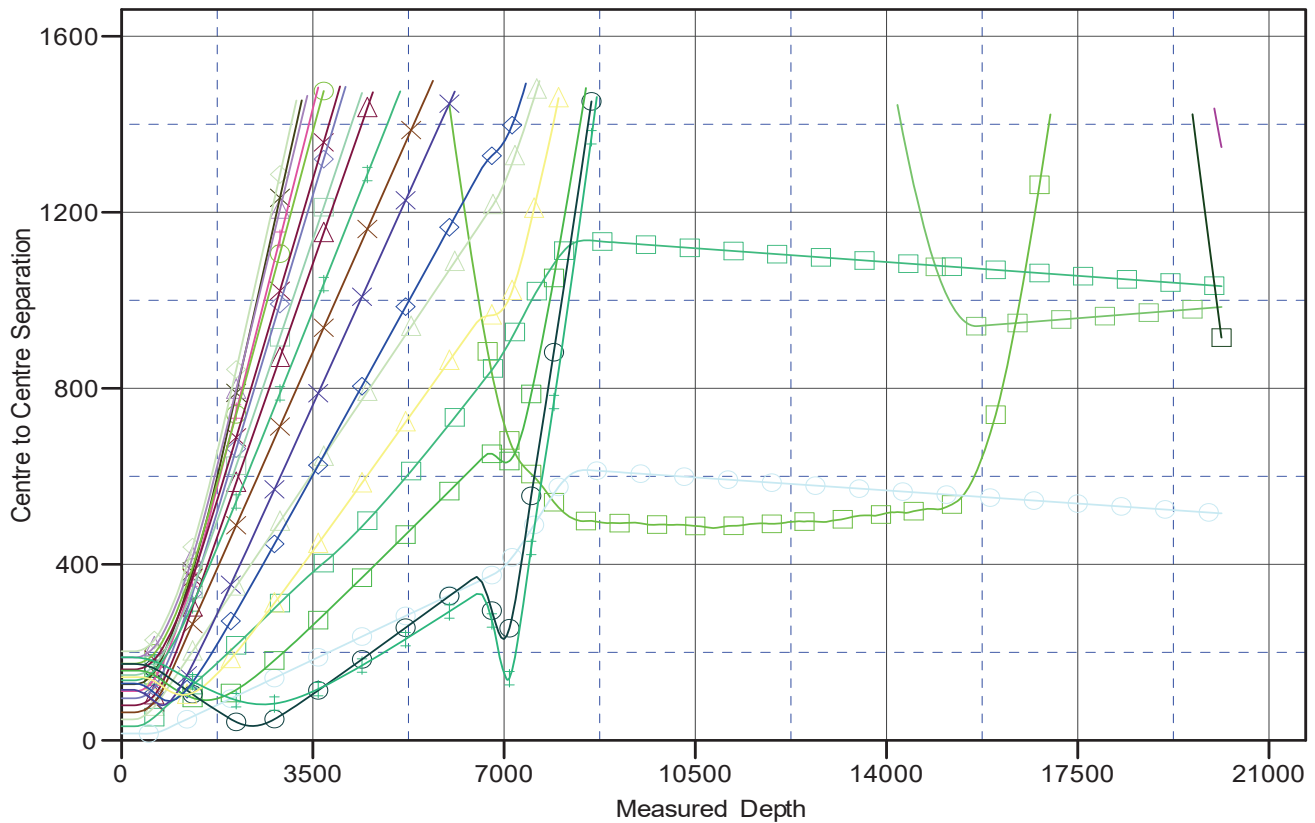
Central Meridian is -105.500000

Coordinates are relative to: ONION 1907-01H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Ladder Plot



LEGEND

WUERTZ 1201-18H, Plan B, Design #1 V0	ONION 1907-06H, Plan A, Design #1 V0	BERG 1930-06H, Wellbore #1, Design #1 V0
SAFI 1224-44H, Verdad PR Well, Actual SLB Surveys V0	ONION 1907-07H, Plan A, Design #1 V0	BERG 1930-09H, Wellbore #1, Design #1 V0
ONION 1907-04H, Plan A, Design #1 V0	FLANIGAN2B-6H, CPR SI Well, Actual Cathedral Surveys V0	GOURD 1930-03H, Wellbore #1, Design #1 V0
ONION 1907-04H, Plan A, Design #1 V0	FLANIGAN2B-6H, CPR PR Well, Actual Cathedral Surveys V0	GOURD 1930-02H, Wellbore #1, Design #1 V0
ONION 1907-08H, Plan A, Design #1 V0	BERG 1930-03H, Wellbore #1, Design #1 V0	GOURD 1930-05H, Wellbore #1, Design #1 V0
ONION 1907-03H, Plan A, Design #1 V0	BERG 1930-01H, Wellbore #1, Design #1 V0	GOURD 1930-06H, Wellbore #1, Design #1 V0
ONION 1907-05H, Plan A, Design #1 V0	BERG 1930-04H, Wellbore #1, Design #1 V0	GOURD 1930-04H, Wellbore #1, Design #1 V0
ONION 1907-02H, Plan A, Design #1 V0	BERG 1930-02H, Wellbore #1, Design #1 V0	GOURD 1930-01H, Wellbore #1, Design #1 V0

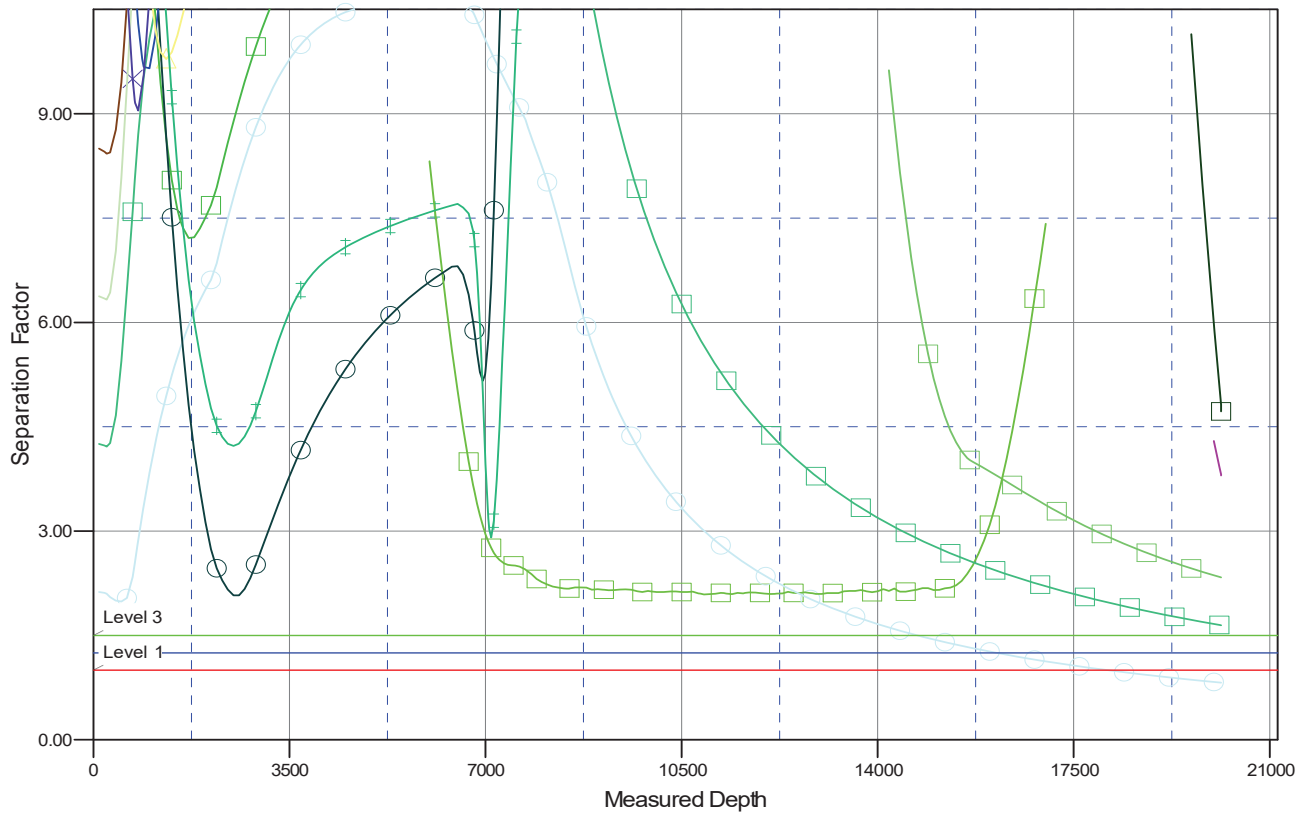
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Coordinates are relative to: ONION 1907-01H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.58°

Separation Factor Plot



LEGEND

WUERTZ 1201-18H, Plan B, Design #1 V0	ONION 190706H, Plan A, Design #1 V0	BERG 193006H, Wellbore #1, Design #1 V0
SAFI 1224-44H, Verdad PR Well, Actual SLB Surveys V0	ONION 190707H, Plan A, Design #1 V0	BERG 193005H, Wellbore #1, Design #1 V0
ONION 190704H, Plan A, Design #1 V0	FLANIGAN2A-6H, CPR SI Well, Actual Cathedral Surveys V0	GOURD 193003H, Wellbore #1, Design #1 V0
ONION 190704H, Plan A, Design #1 V0	FLANIGAN2B-6H, CPR PR Well, Actual Cathedral Surveys V0	GOURD 193002H, Wellbore #1, Design #1 V0
ONION 190708H, Plan A, Design #1 V0	BERG 193003H, Wellbore #1, Design #1 V0	GOURD 193005H, Wellbore #1, Design #1 V0
ONION 190703H, Plan A, Design #1 V0	BERG 193001H, Wellbore #1, Design #1 V0	GOURD 193006H, Wellbore #1, Design #1 V0
ONION 190705H, Plan A, Design #1 V0	BERG 193004H, Wellbore #1, Design #1 V0	GOURD 193004H, Wellbore #1, Design #1 V0
ONION 190702H, Plan A, Design #1 V0	BERG 193002H, Wellbore #1, Design #1 V0	GOURD 193001H, Wellbore #1, Design #1 V0