

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-12 RAMEN 1423 PAD

RAMEN 1423-05H

Plan B

Permit Rev-1

Anticollision Summary Report

17 August, 2023

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well RAMEN 1423-05H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 4995.00usft (RIG)
Reference Site:	1N-65W-12 RAMEN 1423 PAD	MD Reference:	RKB = 24' @ 4995.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	RAMEN 1423-05H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan B	Database:	EDM 5000.16 Single User Db
Reference Design:	Permit Rev-1	Offset TVD Reference:	Offset Datum

Reference	Permit Rev-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	8/17/2023			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	2,020.00	Permit Rev-1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	
2,020.00	19,512.13	Permit Rev-1 (Plan B)	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-65W-10 HDI KF PAD						
HDI KF 10-11H - Verdad PR Well - Actual Baker Surveys						Out of range
1N-65W-11 Offsets						
HUDSON 1-11 - KMG SI Well - No Surveys						Out of range
1N-65W-12 Offsets						
RINGSBY 1 - KPK P&A Well - No Surveys						Out of range
RINGSBY 2 - KPK SI Well - No Surveys						Out of range
WUERTZ 12-3 - KPK PR Well - No Surveys	4,575.30	3,716.15	387.93	198.36	2.046	CC
WUERTZ 12-3 - KPK PR Well - No Surveys	4,600.00	3,733.35	388.34	197.71	2.037	ES, SF
1N-65W-12 RAMEN 1423 PAD						
RAMEN 1423-01H - Plan B - Permit Rev-1	200.00	200.00	64.00	56.43	8.458	CC, ES
RAMEN 1423-01H - Plan B - Permit Rev-1	2,800.00	2,711.25	185.33	146.06	4.719	SF
RAMEN 1423-02H - Plan B - Permit Rev-1	200.00	200.00	48.00	40.43	6.343	CC, ES
RAMEN 1423-02H - Plan B - Permit Rev-1	2,800.00	2,731.79	148.87	109.52	3.784	SF
RAMEN 1423-03H - Plan B - Permit Rev-1	205.35	205.35	32.00	24.43	4.227	CC, ES
RAMEN 1423-03H - Plan B - Permit Rev-1	19,512.13	20,340.00	1,248.06	672.94	2.170	SF
RAMEN 1423-04H - Plan B - Permit Rev-1	205.59	205.59	16.00	8.43	2.113	CC, ES
RAMEN 1423-04H - Plan B - Permit Rev-1	19,512.13	19,915.61	624.03	49.02	1.085	Level 2, SF
RAMEN 1423-06H - Plan B - Permit Rev-1	300.85	300.85	16.00	8.35	2.090	CC, ES
RAMEN 1423-06H - Plan B - Permit Rev-1	19,512.13	19,132.88	624.03	49.40	1.086	Level 2, SF
RAMEN 1423-07H - Plan B - Permit Rev-1	300.85	300.85	32.00	24.35	4.181	CC, ES
RAMEN 1423-07H - Plan B - Permit Rev-1	19,512.13	18,790.91	1,248.06	673.40	2.172	SF
RAMEN 1423-08H - Plan A - Permit Rev-1	301.49	301.57	47.83	40.19	6.255	CC, ES
RAMEN 1423-08H - Plan A - Permit Rev-1	2,100.00	2,098.85	183.08	151.76	5.847	SF

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Reference Design:	Permit Rev-1	Offset TVD Reference:	Offset Datum

Summary						
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Offset Well - Wellbore - Design						
1N-65W-12 SAFI 1224 PAD						
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	395.28	393.18	62.22	54.43	7.989	CC
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	400.00	397.95	62.22	54.43	7.982	ES
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	900.00	905.84	68.61	59.46	7.502	SF
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys	527.11	529.25	64.81	56.70	7.995	CC, ES
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys	600.00	601.26	66.18	57.85	7.945	SF
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys	413.87	413.38	93.23	85.41	11.920	CC, ES
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys	500.00	499.17	94.55	86.56	11.841	SF
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys	311.68	308.08	111.28	103.60	14.493	CC, ES
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys	400.00	395.90	112.70	104.91	14.463	SF
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys	258.73	254.73	127.57	119.95	16.733	CC, ES
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys	300.85	295.81	127.75	120.08	16.666	SF
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	252.42	248.41	143.35	135.73	18.817	CC, ES
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	300.85	295.29	143.62	135.96	18.738	SF
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys	215.82	211.83	159.16	151.57	20.971	CC, ES
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys	300.85	293.42	159.95	152.29	20.872	SF
1N-65W-12 WUERTZ 1201 PAD						
WUERTZ 1201-11H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-14H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-16H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-18H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-2H - VERDAD PR Well - Actual SLB Sur	5,281.23	4,510.29	1,366.86	1,262.23	13.063	CC
WUERTZ 1201-2H - VERDAD PR Well - Actual SLB Sur	5,400.00	4,614.74	1,368.01	1,260.55	12.729	ES
WUERTZ 1201-2H - VERDAD PR Well - Actual SLB Sur	6,200.00	5,327.58	1,431.32	1,309.61	11.759	SF
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur	4,357.67	3,639.55	1,489.25	1,415.43	20.175	CC
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur	4,500.00	3,766.25	1,491.33	1,413.95	19.272	ES
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur	4,700.00	3,943.48	1,499.68	1,417.58	18.268	SF
WUERTZ 1201-5H - VERDAD PR Well - Actual SLB Sur						Out of range
WUERTZ 1201-7H - VERDAD PR Well - Actual SLB Sur						Out of range
WUERTZ 1201-9H - VERDAD PR Well - Actual SLB Sur						Out of range
1N-65W-14 Offsets						
AMEN 5 - VERDAD PR Well - Actual Ensign Surveys	7,219.47	5,599.50	739.24	610.03	5.721	CC, ES
AMEN 5 - VERDAD PR Well - Actual Ensign Surveys	7,300.00	5,658.03	741.40	610.65	5.670	SF
STEINWALD #37 - NOBLE P&A Well - No Surveys						Out of range
1N-65W-22 Offsets						
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv						Out of range
1N-65W-26 Offsets						
PARKER 10-26 - MTN P&A Well - No Surveys						Out of range
ROWE 01N-65W-26-8N - VERDAD PR Well - Actual Ens	19,512.13	6,940.00	1,303.98	1,059.91	5.343	CC, ES, SF

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Reference Depths are relative to RKB = 24' @ 4995.00usft (RIG)

Offset Depths are relative to Offset Datum

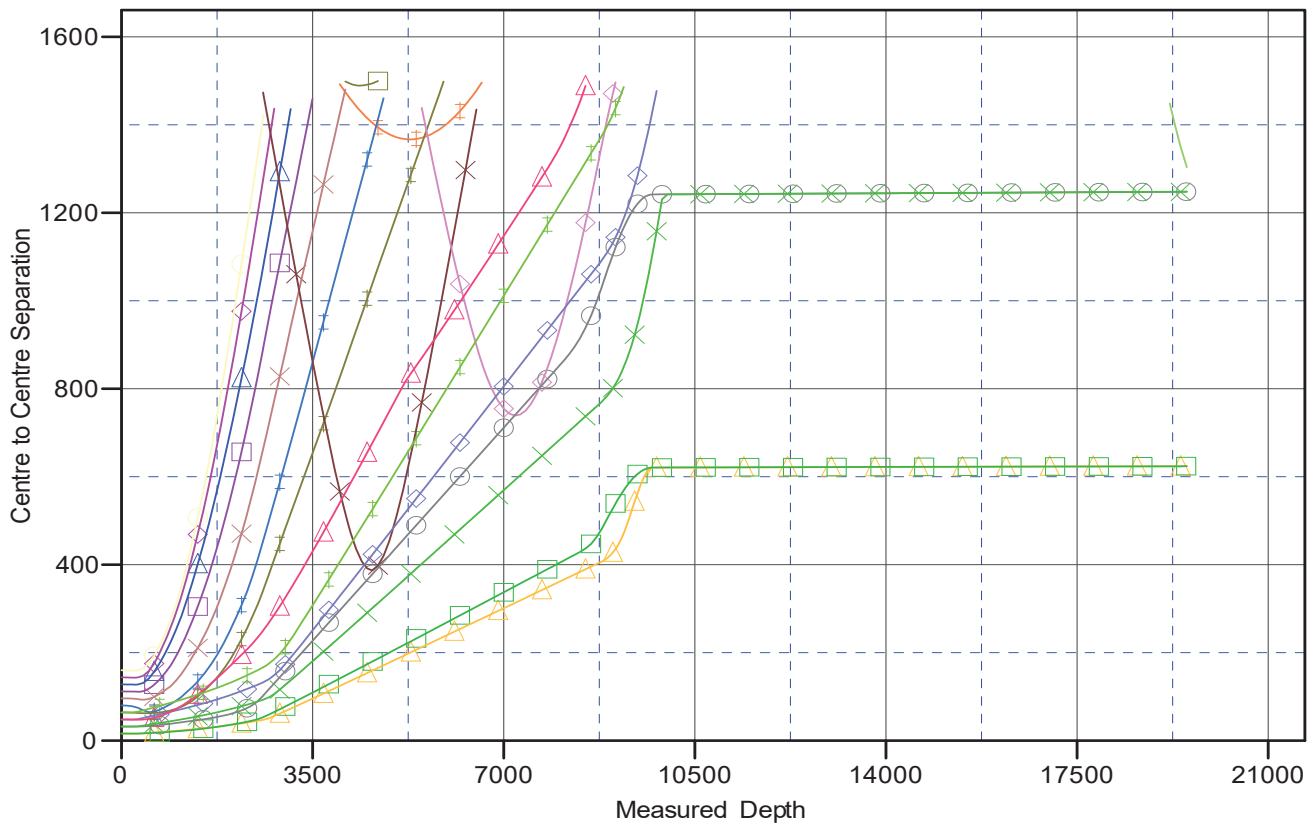
Central Meridian is -105.500000

Coordinates are relative to: RAMEN 1423-05H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.57°

Ladder Plot



LEGEND

WUERTZ 1201-2H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-02H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-02H, Plan B, Permit Rev-1 V0
WUERTZ 1201-3H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-12H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-03H, Plan B, Permit Rev-1 V0
SAFI 1224-04H, Verdad PR Well, Actual SLB Surveys V0	WUERTZ 12-3, KPK PR Well, No Surveys V0	RAMEN 1423-08H, Plan A, Permit Rev-1 V0
SAFI 1224-08H, Verdad PR Well, Actual SLB Surveys V0	ROME 01N65W-26-SN, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-01H, Plan B, Permit Rev-1 V0
SAFI 1224-14H, Verdad PR Well, Actual SLB Surveys V0	AMENS, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-06H, Plan B, Permit Rev-1 V0
SAFI 1224-09H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-04H, Plan B, Permit Rev-1 V0	
SAFI 1224-10H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-07H, Plan B, Permit Rev-1 V0	

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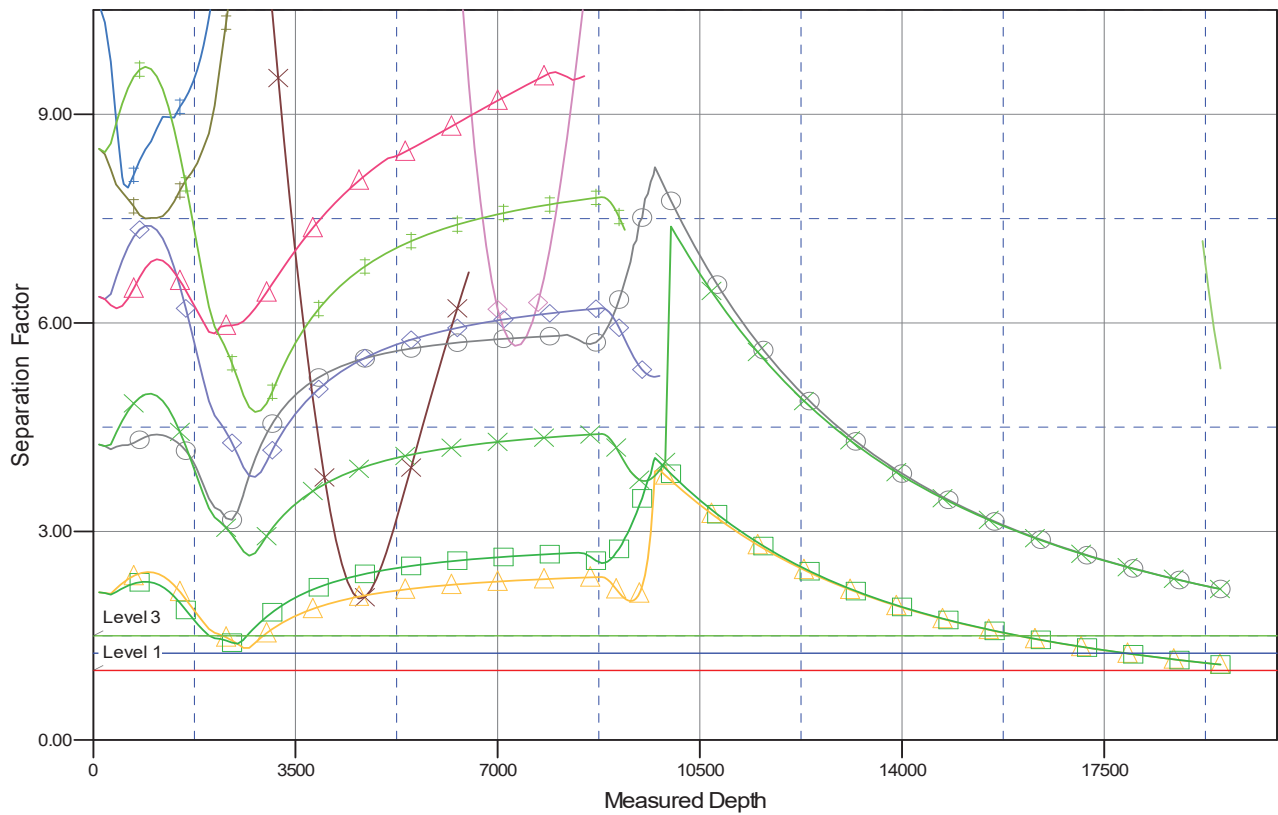
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Separation Factor Plot



LEGEND

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WUERTZ 1201-3H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-12H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-03H, Plan B, Permit Rev-1 V0
SAFI 1224-04H, Verdad PR Well, Actual SLB Surveys V0	WUERTZ 12-3, KPK PR Well, No Surveys V0	RAMEN 1423-08H, Plan A, Permit Rev-1 V0
SAFI 1224-08H, Verdad PR Well, Actual SLB Surveys V0	ROME 01N65W-26-SN, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-01H, Plan B, Permit Rev-1 V0
SAFI 1224-14H, Verdad PR Well, Actual SLB Surveys V0	AMENS, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-06H, Plan B, Permit Rev-1 V0
SAFI 1224-09H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-04H, Plan B, Permit Rev-1 V0	
SAFI 1224-10H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-07H, Plan B, Permit Rev-1 V0	