

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 CHIVE & SHALLOT PAD

SHALLOT 1930-22H

Plan A

Design #1

Anticollision Summary Report

19 May, 2023

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Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well SHALLOT 1930-22H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 20' @ 5031.00usft (RIG)
Reference Site:	1N-64W-19 CHIVE & SHALLOT PAD	MD Reference:	RKB = 20' @ 5031.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	SHALLOT 1930-22H	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	5/15/2023			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	2,070.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination	
2,070.00	15,286.95	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-19 CHIVE & SHALLOT PAD						
CHIVE 2536-10H - Plan A - Design #1	200.00	200.00	192.00	184.43	25.368	CC, ES
CHIVE 2536-10H - Plan A - Design #1	301.20	295.06	193.60	185.95	25.312	SF
CHIVE 2536-11H - Plan A - Design #1	200.00	200.00	176.00	168.43	23.254	CC, ES
CHIVE 2536-11H - Plan A - Design #1	301.20	296.65	177.05	169.40	23.143	SF
CHIVE 2536-12H - Plan A - Design #1	207.02	207.02	160.00	152.42	21.127	CC, ES
CHIVE 2536-12H - Plan A - Design #1	301.20	298.15	160.57	152.92	20.985	SF
CHIVE 2536-13H - Plan A - Design #1	201.50	201.50	144.00	136.43	19.023	CC, ES
CHIVE 2536-13H - Plan A - Design #1	301.20	300.00	144.28	136.62	18.850	SF
CHIVE 2536-14H - Plan A - Design #1	211.08	211.08	128.00	120.42	16.895	CC
CHIVE 2536-14H - Plan A - Design #1	301.20	300.00	128.07	120.41	16.730	ES, SF
CHIVE 2536-15H - Plan A - Design #1	216.39	216.39	112.01	104.43	14.777	CC
CHIVE 2536-15H - Plan A - Design #1	301.20	299.80	112.01	104.36	14.632	ES, SF
CHIVE 2536-16H - Plan A - Design #1	301.20	301.20	96.00	88.35	12.539	CC, ES, SF
CHIVE 2536-17H - Plan A - Design #1	301.20	301.20	80.00	72.35	10.449	CC, ES, SF
SHALLOT 1930-18H - Plan A - Design #1	301.20	301.20	64.00	56.35	8.359	CC, ES, SF
SHALLOT 1930-19H - Plan A - Design #1	301.20	301.20	48.00	40.35	6.270	CC, ES, SF
SHALLOT 1930-20H - Plan A - Design #1	301.20	301.20	32.00	24.35	4.180	CC, ES
SHALLOT 1930-20H - Plan A - Design #1	15,286.95	15,113.56	1,430.72	1,088.41	4.180	SF
SHALLOT 1930-21H - Plan A - Design #1	301.20	301.20	16.00	8.34	2.090	CC, ES, SF
SHALLOT 1930-23H - Plan A - Design #1	202.90	202.90	16.00	8.43	2.114	CC, ES
SHALLOT 1930-23H - Plan A - Design #1	15,286.95	15,476.99	715.36	374.14	2.096	SF
SHALLOT 1930-24H - Plan A - Design #1	207.44	207.44	32.00	24.43	4.225	CC, ES
SHALLOT 1930-24H - Plan A - Design #1	15,286.95	15,727.07	1,430.71	1,089.74	4.196	SF
1N-64W-19 Offsets						
STEVENS #1 - KPK P/A Well - No Surveys	8,424.45	6,911.00	1,236.03	964.66	4.555	CC, ES
STEVENS #1 - KPK P/A Well - No Surveys	8,500.00	6,911.00	1,238.34	966.46	4.555	SF
WEIMER #1 - Petro-American Energy D/A Well - No Sur	7,241.10	6,751.86	1,304.58	1,038.40	4.901	CC, ES, SF

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

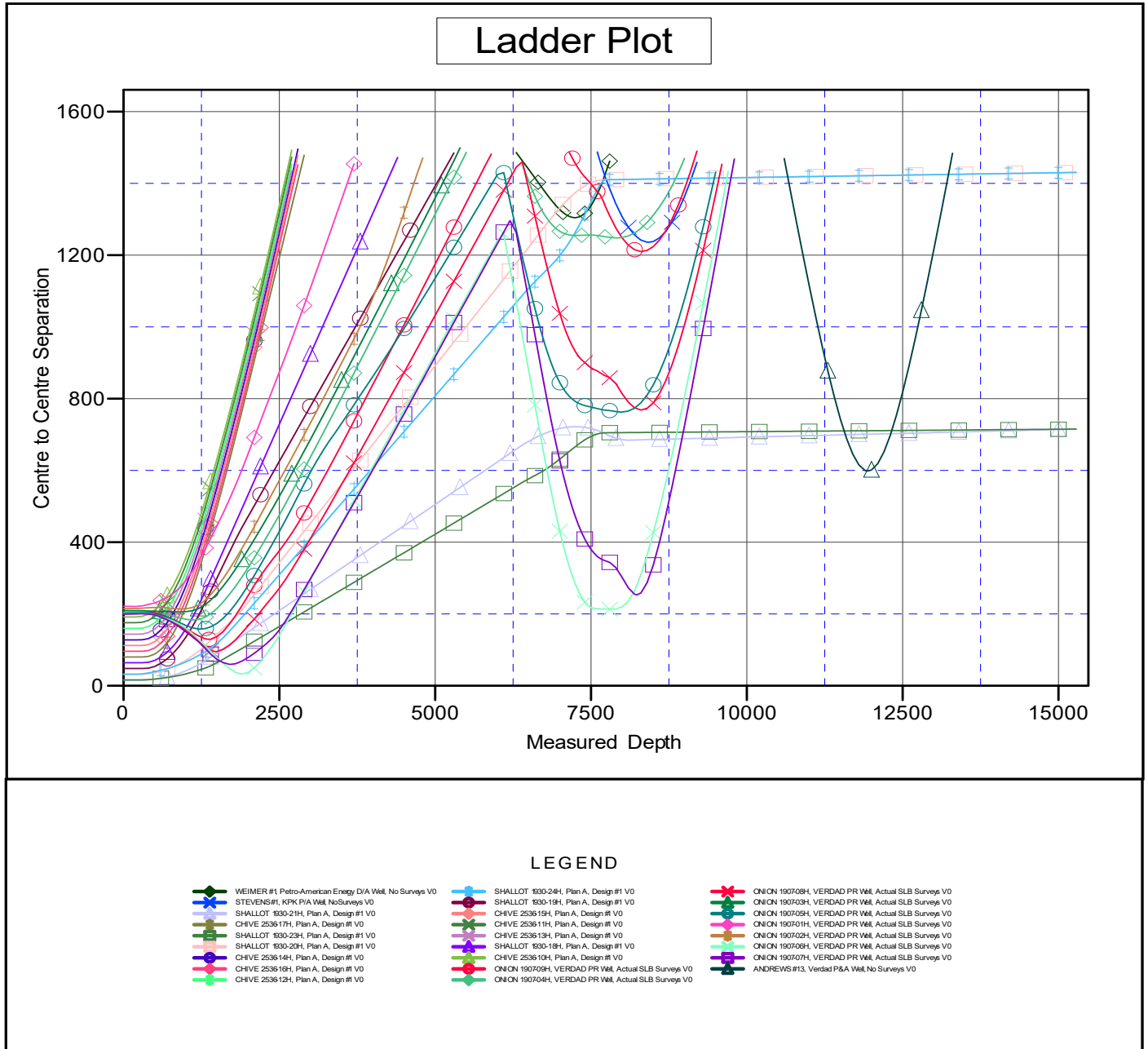
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
1N-64W-19 ONION 1907 PAD						
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	184.67	185.67	221.08	213.53	29.266	CC, ES
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	600.00	578.29	237.55	229.39	29.120	SF
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	919.33	910.04	214.25	205.07	23.343	CC, ES
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	1,300.00	1,273.27	236.77	225.31	20.673	SF
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	866.35	852.94	205.96	197.03	23.065	CC
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	900.00	886.34	205.99	196.92	22.710	ES
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	1,319.70	1,291.88	226.84	215.16	19.416	SF
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	1,114.29	1,097.49	183.30	173.07	17.913	CC, ES
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	1,400.00	1,370.59	200.44	188.09	16.226	SF
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	1,232.46	1,214.78	158.18	147.09	14.253	CC, ES
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	7,200.00	8,092.12	798.86	736.92	12.897	SF
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	1,899.14	1,876.25	32.65	16.33	2.000	CC, ES, SF
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	1,723.06	1,694.66	59.82	46.32	4.433	CC, ES
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	1,900.00	1,869.01	68.48	51.10	3.940	SF
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	1,482.90	1,445.57	95.11	83.35	8.088	CC, ES
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	1,500.00	1,461.52	95.26	83.42	8.050	SF
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	1,373.49	1,333.35	129.58	118.17	11.365	CC, ES
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	1,500.00	1,449.44	136.51	124.29	11.171	SF
1N-64W-30 Offsets						
ANDREWS #13 - Verdad P&A Well - No Surveys	11,941.81	6,922.00	598.50	260.51	1.771	CC
ANDREWS #13 - Verdad P&A Well - No Surveys	12,000.00	6,922.00	601.32	260.15	1.763	ES, SF
ARNOLD #31 - Verdad P&A Well - No Surveys						Out of range
1N-64W-31 Offsets						
UPRR TIPPETT #1 - Rocky Mtn P&A Well - No Surveys						Out of range

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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 20' @ 5031.00usft (RIG)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: SHALLOT 1930-22H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.58°



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Offset Depths are relative to Offset Datum

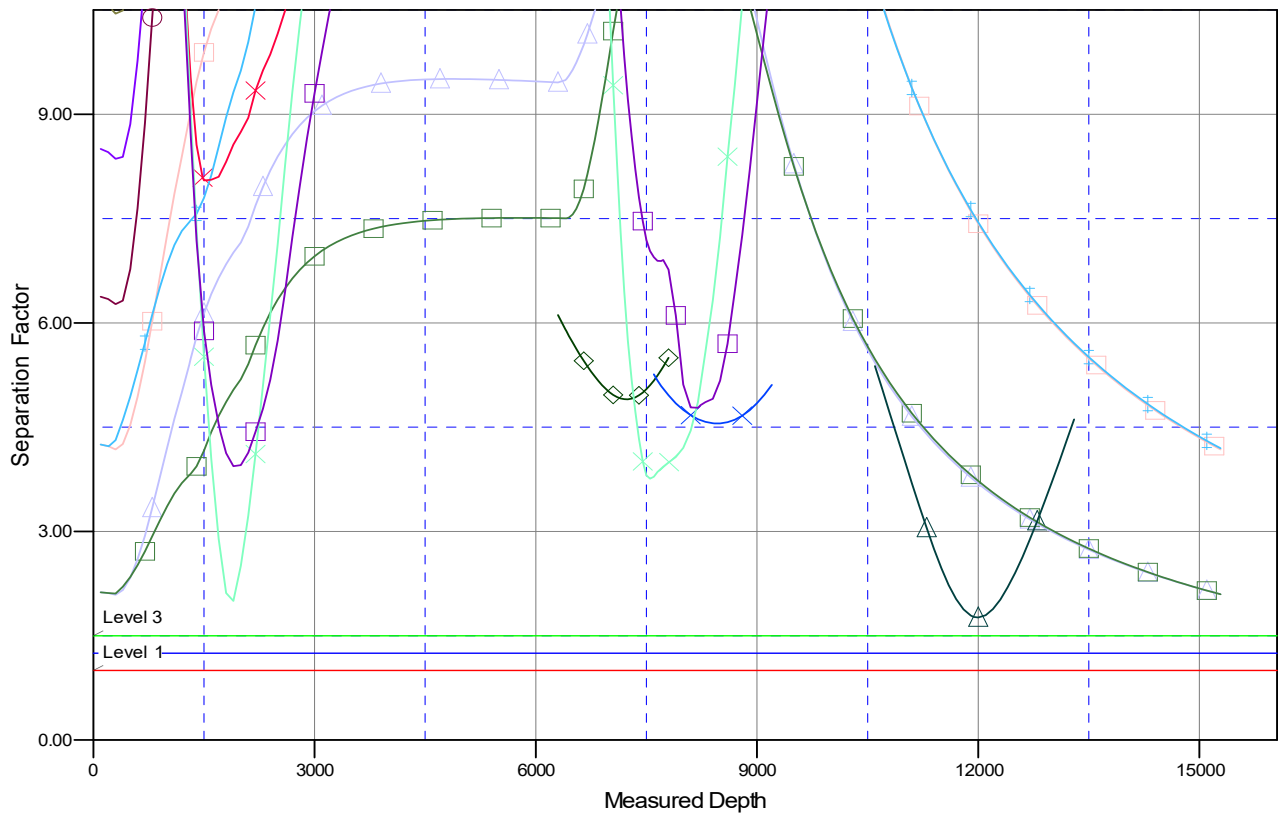
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Coordinates are relative to: SHALLOT 1930-22H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Separation Factor Plot



LEGEND

WEIMER #1 Petro-American Energy DIA Well, No Surveys V0	SHALLOT 1930-24H, Plan A, Design #1 V0	ONION 190708H, VERDAD PR Well, Actual SLB Survey V0
STEVENS#1, KPK P/A Well, No Surveys V0	SHALLOT 1930-19H, Plan A, Design #1 V0	ONION 190703H, VERDAD PR Well, Actual SLB Survey V0
SHALLOT 1930-21H, Plan A, Design #1 V0	CHIVE 253615H, Plan A, Design #1 V0	ONION 190709H, VERDAD PR Well, Actual SLB Survey V0
CHIVE 253617H, Plan A, Design #1 V0	CHIVE 253611H, Plan A, Design #1 V0	ONION 190701H, VERDAD PR Well, Actual SLB Survey V0
SHALLOT 1930-23H, Plan A, Design #1 V0	CHIVE 253613H, Plan A, Design #1 V0	ONION 190702H, VERDAD PR Well, Actual SLB Survey V0
SHALLOT 1930-20H, Plan A, Design #1 V0	SHALLOT 1930-19H, Plan A, Design #1 V0	ONION 190706H, VERDAD PR Well, Actual SLB Survey V0
CHIVE 253614H, Plan A, Design #1 V0	CHIVE 253610H, Plan A, Design #1 V0	ONION 190707H, VERDAD PR Well, Actual SLB Survey V0
CHIVE 253616H, Plan A, Design #1 V0	ONION 190709H, VERDAD PR Well, Actual SLB Survey V0	ANDREWS #13, Verdad P&A Well, No Surveys V0
CHIVE 253612H, Plan A, Design #1 V0	ONION 190704H, VERDAD PR Well, Actual SLB Survey V0	