

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**9N-59W-01 TIMBRO 0101 PAD**

**TIMBRO 0112-01H**

**Plan A**

**Design #1**

## **Anticollision Summary Report**

**18 January, 2023**

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 0112-01H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Reference Site:</b>	9N-59W-01 TIMBRO 0101 PAD	<b>MD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	TIMBRO 0112-01H	<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>	Plan A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	<b>Date</b>	1/18/2023		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
20.00	1,733.00	SLB MWD Surface Surveys (Plan A)	ISCWSA MWD	Fixed:v2:standard declination
1,733.00	12,693.97	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination

<b>Summary</b>						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
10N-58W-30 Offsets Incomplete						
RAZOR FEDERAL 30L-1902 - FUNDARE PR Well - Actu						Out of range
RAZOR FEDERAL 30L-3101 - FUNDARE PR Well - Actu						Out of range
10N-59W-36 Offsets						
STATE #1 - US GOLD P&A Well - No Surveys						Out of range
TERRACE 36-11H - FUNDARE Original Wellbore - Actua						Out of range
TERRACE 36-11H - FUNDARE PR Sidetrack - Actual En						Out of range
TERRACE 36-32M - FUNDARE P&A Well - No Surveys						Out of range
WOLF 36-3624H - FUNDARE SI Well - Actual Ensign Su						Out of range
9N-58W-05 Offsets Incomplete						
HESTON LD06-620 - NBL Original Well (Grid to True) - A						Out of range
HESTON LD06-620 - NBL SI Sidetrack Well (Grid to True						Out of range
HESTON LD06-625 - NBL PR Well - Actual Sperry Surve						Out of range
HESTON LD06-630 - NBL PR Well - Actual Sperry Surve						Out of range
NUGENT LD06-655 - NBL PR Well - Actual SLB Surveys						Out of range
NUGENT LD06-665 - NBL PR Well - Actual SLB Surveys						Out of range
REAGAN LD06-675 - NBL PR Well - Actual BKR Survey						Out of range
REAGAN LD06-685 - NBL PR Well - Actual Gyrodata & S						Out of range
Timbro LD06-64HN - Noble PR Well - Actual DDC Surve						Out of range
9N-58W-07 Offsets Incomplete						
STRIPES FEDERAL LD18-785 - NBL PR Well - Actual B						Out of range
TIMBRO FEDERAL LD 07-78HN - NBL SI Well - Actual D						Out of range
9N-59W-01 Offsets						
BUCHER #1 - Todd Gross P&A Well - No Surveys	7,600.00	6,094.00	264.43	20.74	1.085	Level 2, ES, SF
BUCHER #1 - Todd Gross P&A Well - No Surveys	7,617.59	6,094.00	263.84	20.76	1.085	Level 2, CC
TIMBRO RANCH 1-41-9-59 - VERDAD Pilot Hole - Actua						Out of range
TIMBRO RANCH 1-41-9-59 - VERDAD PR Well - Actual						Out of range

# Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 0112-01H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Reference Site:</b>	9N-59W-01 TIMBRO 0101 PAD	<b>MD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	TIMBRO 0112-01H	<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>	Plan A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<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						
9N-59W-01 TIMBRO 0101 PAD						
TIMBRO 0112-01H - Plan A - Actual SLB Surveys	2,100.00	1,783.00	316.95	309.44	42.201	CC, ES, SF
TIMBRO 0112-02H - Plan A - Actual SLB Surveys	248.41	248.46	14.76	7.13	1.934	CC
TIMBRO 0112-02H - Plan A - Actual SLB Surveys	253.00	253.05	14.77	7.13	1.934	ES
TIMBRO 0112-02H - Plan A - Actual SLB Surveys	1,733.00	1,740.72	60.09	23.83	1.657	SF
TIMBRO 0112-02H - Plan A - Design #1	248.41	248.46	14.76	7.13	1.934	CC
TIMBRO 0112-02H - Plan A - Design #1	253.00	253.05	14.77	7.13	1.934	ES, SF
TIMBRO 0112-03H - Plan A - Actual SLB Surveys	228.87	228.76	31.03	23.42	4.076	CC
TIMBRO 0112-03H - Plan A - Actual SLB Surveys	253.00	253.06	31.04	23.41	4.067	ES
TIMBRO 0112-03H - Plan A - Actual SLB Surveys	282.00	282.13	31.10	23.44	4.060	SF
TIMBRO 0112-03H - Plan A - Design #1	228.87	228.76	31.03	23.42	4.076	CC
TIMBRO 0112-03H - Plan A - Design #1	253.00	253.06	31.04	23.41	4.067	ES
TIMBRO 0112-03H - Plan A - Design #1	282.00	282.13	31.10	23.44	4.060	SF
TIMBRO 0112-04H - Plan A - Actual SLB Surveys	231.48	231.38	46.89	39.28	6.156	CC, ES
TIMBRO 0112-04H - Plan A - Actual SLB Surveys	253.00	252.88	46.96	39.33	6.150	SF
TIMBRO 0112-04H - Plan A - Design #1	231.48	231.38	46.89	39.28	6.156	CC, ES
TIMBRO 0112-04H - Plan A - Design #1	253.00	252.88	46.96	39.33	6.150	SF
TIMBRO 0112-05H - Plan A - Actual SLB Surveys	205.61	205.27	63.30	55.71	8.336	CC, ES
TIMBRO 0112-05H - Plan A - Actual SLB Surveys	282.00	281.86	63.75	56.08	8.321	SF
TIMBRO 0112-05H - Plan A - Design #1	205.61	205.27	63.30	55.71	8.336	CC, ES
TIMBRO 0112-05H - Plan A - Design #1	282.00	281.86	63.75	56.08	8.321	SF
TIMBRO 0112-06H - Plan A - Actual SLB Surveys	207.10	206.68	79.54	71.94	10.472	CC, ES
TIMBRO 0112-06H - Plan A - Actual SLB Surveys	223.00	222.29	79.57	71.96	10.460	SF
TIMBRO 0112-06H - Plan A - Design #1	207.10	206.68	79.54	71.94	10.472	CC, ES
TIMBRO 0112-06H - Plan A - Design #1	223.00	222.29	79.57	71.96	10.460	SF
TIMBRO 0112-07H - Plan A - Actual SLB Surveys	177.56	176.80	95.77	88.19	12.641	CC, ES
TIMBRO 0112-07H - Plan A - Actual SLB Surveys	253.00	251.88	96.24	88.60	12.605	SF
TIMBRO 0112-07H - Plan A - Design #1	177.56	176.80	95.77	88.19	12.641	CC, ES
TIMBRO 0112-07H - Plan A - Design #1	253.00	251.88	96.24	88.60	12.605	SF
TIMBRO 0112-08H - Plan A - Actual SLB Surveys	222.05	221.55	111.68	104.07	14.672	CC
TIMBRO 0112-08H - Plan A - Actual SLB Surveys	223.00	222.50	111.68	104.07	14.671	ES
TIMBRO 0112-08H - Plan A - Actual SLB Surveys	253.00	252.03	111.87	104.23	14.645	SF
TIMBRO 0112-08H - Plan A - Design #1	222.05	221.55	111.68	104.07	14.672	CC
TIMBRO 0112-08H - Plan A - Design #1	223.00	222.50	111.68	104.07	14.671	ES
TIMBRO 0112-08H - Plan A - Design #1	253.00	252.03	111.87	104.23	14.645	SF
TIMBRO 3625-12H - Plan A - Design #1	239.01	239.01	175.16	167.55	23.020	CC, ES
TIMBRO 3625-12H - Plan A - Design #1	341.00	341.05	176.28	168.57	22.863	SF
TIMBRO 3625-13H - Plan A - Design #1	238.95	238.94	191.23	183.62	25.132	CC, ES
TIMBRO 3625-13H - Plan A - Design #1	371.00	370.91	193.27	185.51	24.914	SF
TIMBRO 3625-14H - Plan A - Design #1	239.00	239.00	207.29	199.68	27.242	CC, ES
TIMBRO 3625-14H - Plan A - Design #1	401.00	400.88	210.44	202.64	26.975	SF
TIMBRO 3625-15H - Plan A - Design #1	217.64	216.58	223.17	215.58	29.396	CC, ES
TIMBRO 3625-15H - Plan A - Design #1	253.00	249.39	223.51	215.89	29.339	SF
TIMBRO 3636-09H - Plan A - Design #1	6,825.58	6,927.13	74.71	8.29	1.125	Level 2, CC
TIMBRO 3636-09H - Plan A - Design #1	6,850.00	6,915.95	77.87	-2.64	0.967	Level 1, ES, SF
TIMBRO 3636-10H - Plan A - Design #1	239.28	239.28	143.04	135.43	18.800	CC, ES
TIMBRO 3636-10H - Plan A - Design #1	6,550.00	6,948.09	600.44	531.43	8.701	SF
TIMBRO 3636-11H - Plan A - Design #1	238.94	238.94	159.10	151.49	20.910	CC, ES
TIMBRO 3636-11H - Plan A - Design #1	341.00	341.07	160.21	152.50	20.781	SF

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 0112-01H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Reference Site:</b>	9N-59W-01 TIMBRO 0101 PAD	<b>MD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	TIMBRO 0112-01H	<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>	Plan A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)		Separation Factor	Warning
9N-59W-02 Offsets Incomplete						
HAMLIN 1 - SNYDER P&A Well - No Surveys	7,619.88	6,143.00	1,057.50	812.66	4.319	CC, ES
HAMLIN 1 - SNYDER P&A Well - No Surveys	7,900.00	6,143.00	1,093.98	837.93	4.273	SF
MCCLEMENT 1 - TEKOIL P&A Well - No Surveys	8,938.97	6,073.00	1,048.52	783.84	3.961	CC
MCCLEMENT 1 - TEKOIL P&A Well - No Surveys	9,000.00	6,073.00	1,050.29	782.27	3.919	ES
MCCLEMENT 1 - TEKOIL P&A Well - No Surveys	9,200.00	6,073.00	1,080.52	801.39	3.871	SF
WILDHORSE 02-0214H - FUNDARE PR Well - Actual E						Out of range
9N-59W-11 Offsets Incomplete						
Johnny Federal LC11-715 - NBL PR Well - Actual BKR S	12,526.65	11,111.00	681.17	418.04	2.589	CC, ES, SF
Ringo Federal LC23-720 - NBL PR Well - Actual BKR Su						Out of range
9N-59W-12 Offsets						
BEST #1 - DUNWICK P&A Well - No Surveys						Out of range
TIMBRO LC12-78HN - NBL PR Well - Actual DDC Surve	12,693.97	6,272.00	386.03	218.22	2.300	CC, ES, SF
9N-59W-13 Offsets						
TIMBRO LC13-72HN - NBL PR Well - Actual DDC Surve						Out of range
9N-59W-24 Offsets Incomplete						
Timbro LC13-73HN - Noble PR Well - Actual Sperry Surv						Out of range
Timbro LC13-74-1HN - Noble PR Well - Actual Sperry Su						Out of range
Timbro LC13-74HN - Noble PR Well - Actual Sperry Surv						Out of range
Timbro LC13-75-1HN - Noble PR Well - Actual Sperry Su						Out of range
Timbro LC13-75HN - Noble T/A Well - Actual Ensign Sur						Out of range
Timbro LC13-76-1HN - Noble PR Well - Actual Ensign Su						Out of range
Timbro LC13-76HN - Noble PR Well - Actual Ensign Surv						Out of range
Timbro LC13-77-1HN - Noble Original Well - Actual Ensig						Out of range
Timbro LC13-77-1HN - Noble PR Sidetrack Well - Actual						Out of range
WINCHESTER FEDERAL LC24-715 - Noble PR Well - A						Out of range

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 0112-01H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Reference Site:</b>	9N-59W-01 TIMBRO 0101 PAD	<b>MD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	TIMBRO 0112-01H	<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>	Plan A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB = 20' @ 4959.00usft (RIG)

Offset Depths are relative to Offset Datum

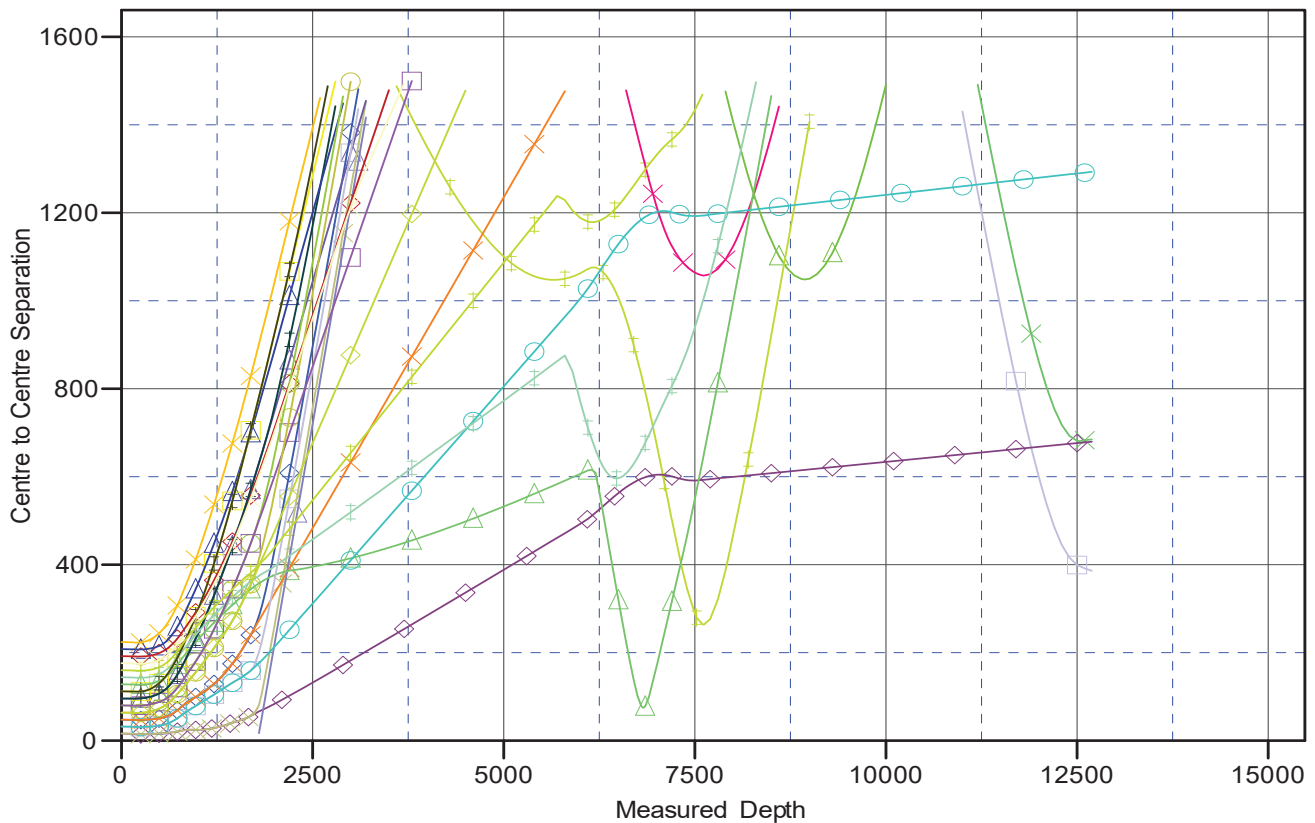
Central Meridian is -105.500000

Coordinates are relative to: TIMBRO 0112-01H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 1.02°

### Ladder Plot



#### LEGEND

TIMBRO LC12-78H, NBL PR Well, Actual DDC Surveys (Grid to True) V0	TIMBRO 0112-01H, Plan A, Actual SLB Surveys V0	TIMBRO 386-10H, Plan A, Design#1 V0
Johnny Federal LC11-715, NBL PR Well, Actual BKR Surveys V0	TIMBRO 386-08H, Plan A, Design#1 V0	TIMBRO 0112-08H, Plan A, Actual SLB Surveys V0
HAMLIN 1, SNYDER P&A Well, No Surveys V0	TIMBRO 385-13H, Plan A, Design#1 V0	TIMBRO 0112-08H, Plan A, Design#1 V0
MOCLEMENT 1, TEKOL P&A Well, No Surveys V0	TIMBRO 385-15H, Plan A, Design#1 V0	TIMBRO 0112-08H, Plan A, Design#1 V0
BUCHER #1, Todd Gross P&A Well, No Surveys V0	TIMBRO 0112-07H, Plan A, Design#1 V0	TIMBRO 0112-08H, Plan A, Actual SLB Surveys V0
TIMBRO 0112-02H, Plan A, Design#1 V0	TIMBRO 0112-07H, Plan A, Actual SLB Surveys V0	TIMBRO 0112-05H, Plan A, Actual SLB Surveys V0
TIMBRO 0112-02H, Plan A, Actual SLB Surveys V0	TIMBRO 385-14H, Plan A, Design#1 V0	TIMBRO 0112-05H, Plan A, Design#1 V0
TIMBRO 0112-04H, Plan A, Actual SLB Surveys V0	TIMBRO 0112-03H, Plan A, Actual SLB Surveys V0	TIMBRO 386-11H, Plan A, Design#1 V0
TIMBRO 0112-04H, Plan A, Design#1 V0	TIMBRO 0112-03H, Plan A, Design#1 V0	TIMBRO 385-12H, Plan A, Design#1 V0

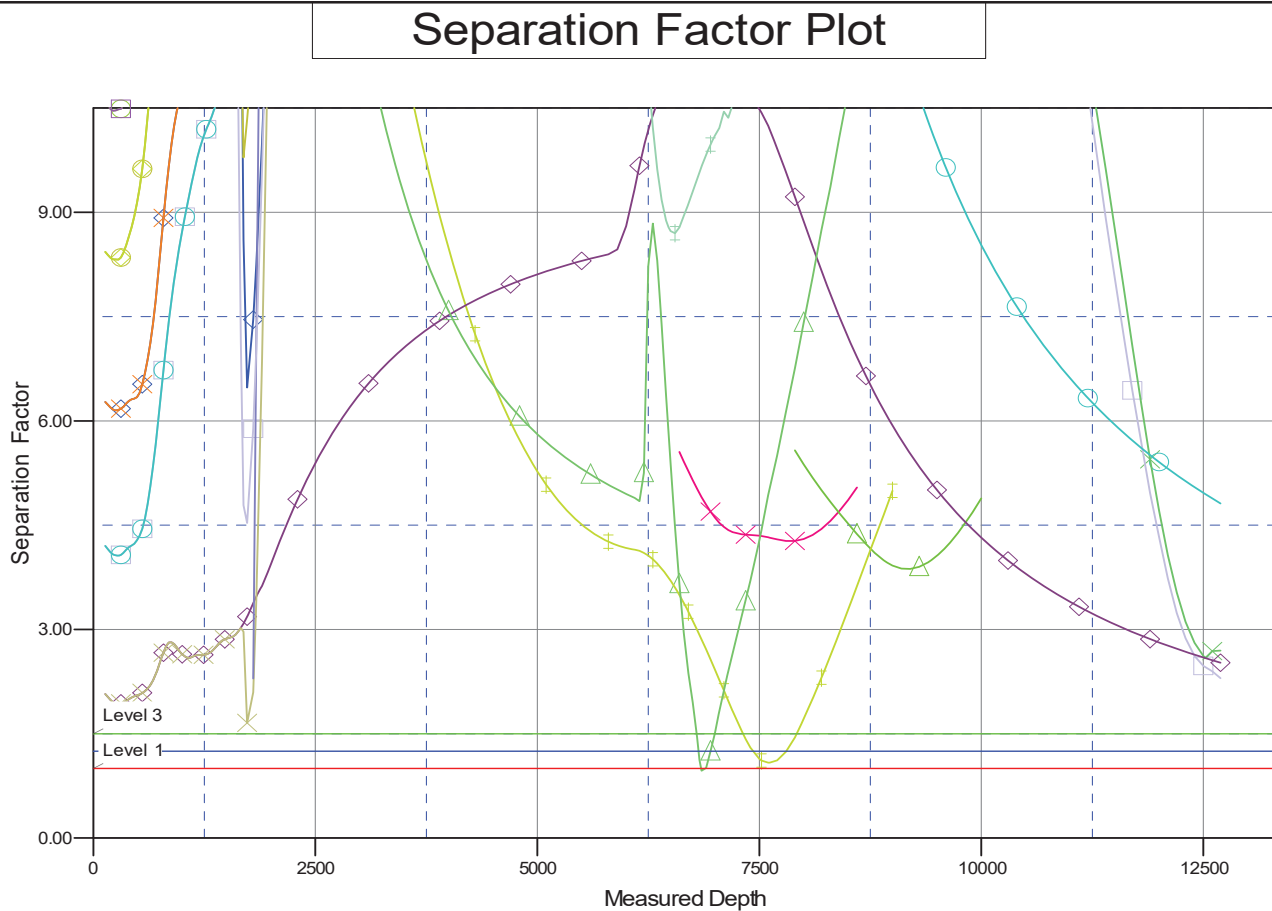
## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 0112-01H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Reference Site:</b>	9N-59W-01 TIMBRO 0101 PAD	<b>MD Reference:</b>	RKB = 20' @ 4959.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	TIMBRO 0112-01H	<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>	Plan A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum




























Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 1.02°



## LEGEND

- |   |  |   |  |   |  |
|---|--|---|--|---|--|
|  | TIMBR01C2-79N, NBL PR W&E, Actual CDC's (Grid to True) V0  |  | TIMBR01C2-01H, Plan A, Actual SLB Surveys V0 |  | TIMBR0 306-10H, Plan A, Design#1 V0          |
|  | Johnny Federal LC11-715, NBL PR W&E, Actual BKR Surveys V0 |  | TIMBR0 306-09H, Plan A, Design#1 V0          |  | TIMBR01C2-09H, Plan A, Actual SLB Surveys V0 |
|  | HAMLIN 1, SNYDER P&A W&E, No Surveys V0                    |  | TIMBR0 305-13H, Plan A, Design#1 V0          |  | TIMBR01C2-08H, Plan A, Design#1 V0           |
|  | MCMELEN 1, TEKOL P&A W&E, No Surveys V0                    |  | TIMBR0 305-15H, Plan A, Design#1 V0          |  | TIMBR01C2-08H, Plan A, Design#1 V0           |
|  | BUCHER #1, Todd Gross P&A W&E, No Surveys V0               |  | TIMBR01C2-07H, Plan A, Design#1 V0           |  | TIMBR01C2-08H, Plan A, Actual SLB Surveys V0 |
|  | TIMBR01C2-02H, Plan A, Design#1 V0                         |  | TIMBR01C2-07H, Plan A, Actual SLB Surveys V0 |  | TIMBR01C2-08H, Plan A, Actual SLB Surveys V0 |
|  | TIMBR01C2-02H, Plan A, Actual SLB Surveys V0               |  | TIMBR0 305-14H, Plan A, Design#1 V0          |  | TIMBR01C2-05H, Plan A, Design#1 V0           |
|  | TIMBR01C2-04H, Plan A, Actual SLB Surveys V0               |  | TIMBR01C2-03H, Plan A, Actual SLB Surveys V0 |  | TIMBR0 306-11H, Plan A, Design#1 V0          |
|  | TIMBR01C2-04H, Plan A, Design#1 V0                         |  | TIMBR01C2-03H, Plan A, Design#1 V0           |  | TIMBR0 305-12H, Plan A, Design#1 V0          |