

VERDAD RESOURCES

WATTENBERG FIELD

9N-59W-01 TIMBRO 0101 PAD

TIMBRO 0101-16H

Plan B

Design #1

Anticollision Summary Report

13 October, 2021

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well TIMBRO 0101-16H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 4960.00usft (RIG)
Reference Site:	9N-59W-01 TIMBRO 0101 PAD	MD Reference:	RKB = 24' @ 4960.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	TIMBRO 0101-16H	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:	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	10/12/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,600.00	Design #1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	
1,600.00	11,480.68	Design #1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
10N-59W-36 Offsets						
STATE #1 - US GOLD D/A Well - No Surveys						Out of range
Terrace #36-32M - Whiting WO Well (Waiting on Complet						Out of range
WOLF #36-3624H - Whiting PR Well - Actual Ensign Sur						Out of range
9N-58W-05 Offsets						
Heston LD06-620 - Noble Original Well (Grid to True) - Ac	10,900.00	16,261.00	803.39	548.32	3.150	SF
Heston LD06-620 - Noble Original Well (Grid to True) - Ac	11,359.94	16,261.00	658.70	507.32	4.351	CC
Heston LD06-620 - Noble Original Well (Grid to True) - Ac	11,481.59	16,261.00	669.84	480.63	3.540	ES
Heston LD06-620 - Noble Sidetrack Well (Grid to True) -	11,289.42	16,243.00	670.01	522.05	4.528	CC
Heston LD06-620 - Noble Sidetrack Well (Grid to True) -	11,481.59	16,243.00	697.03	513.88	3.806	ES, SF
Heston LD06-625 - Noble PR Well - Actual Sperry Survey	10,765.44	16,180.00	665.75	527.26	4.807	CC
Heston LD06-625 - Noble PR Well - Actual Sperry Survey	10,900.00	16,180.00	679.22	519.32	4.248	ES
Heston LD06-625 - Noble PR Well - Actual Sperry Survey	11,200.00	16,180.00	795.03	579.63	3.691	SF
Heston LD06-630 - Noble PR Well - Actual Sperry Survey	10,153.09	16,240.00	682.45	556.87	5.434	CC
Heston LD06-630 - Noble PR Well - Actual Sperry Survey	10,300.00	16,240.00	698.08	545.93	4.588	ES
Heston LD06-630 - Noble PR Well - Actual Sperry Survey	10,600.00	16,240.00	815.76	607.07	3.909	SF
Nugent LD06-655 - Noble PR Well - Actual SLB Surveys	8,687.23	16,119.00	665.95	573.81	7.228	CC
Nugent LD06-655 - Noble PR Well - Actual SLB Surveys	9,000.00	16,119.00	735.74	528.05	3.542	ES
Nugent LD06-655 - Noble PR Well - Actual SLB Surveys	9,300.00	16,119.00	904.98	618.55	3.160	SF
Nugent LD06-665 - Noble PR Well - Actual SLB Surveys	8,071.30	16,170.00	661.80	582.68	8.364	CC
Nugent LD06-665 - Noble PR Well - Actual SLB Surveys	8,300.00	16,170.00	700.21	535.06	4.240	ES
Nugent LD06-665 - Noble PR Well - Actual SLB Surveys	8,700.00	16,170.00	912.82	632.39	3.255	SF
REAGAN LD06-675 - Noble Planned Well (No COGCC A	7,364.12	16,093.14	658.04	601.72	11.684	CC
REAGAN LD06-675 - Noble Planned Well (No COGCC A	7,700.00	16,093.14	738.81	534.57	3.617	ES
REAGAN LD06-675 - Noble Planned Well (No COGCC A	8,000.00	16,093.14	915.08	619.88	3.100	SF
REAGAN LD06-685 - NBL PR Well - Actual Gyrodatta & S	6,723.00	16,320.00	703.42	643.06	11.654	CC
REAGAN LD06-685 - NBL PR Well - Actual Gyrodatta & S	7,000.00	16,320.00	755.99	585.04	4.422	ES
REAGAN LD06-685 - NBL PR Well - Actual Gyrodatta & S	7,400.00	16,320.00	976.28	681.58	3.313	SF
Timbro LD06-64HN - Noble PR Well - Actual DDC Survey	9,699.38	5,725.00	773.39	685.39	8.789	CC
Timbro LD06-64HN - Noble PR Well - Actual DDC Survey	9,700.00	5,725.00	773.39	685.36	8.785	ES
Timbro LD06-64HN - Noble PR Well - Actual DDC Survey	9,900.00	5,725.00	798.99	702.16	8.251	SF
9N-58W-07 Offsets Incomplete						
STRIPES FEDERAL LD18-785 - NBL PR Well - Actual B	11,481.59	6,202.00	640.21	505.01	4.735	CC, ES, SF
TIMBRO FEDERAL LD 07-78HN - Noble PR Well - Actua	11,481.59	5,755.81	1,126.13	1,004.84	9.285	CC, ES, SF

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well TIMBRO 0101-16H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 4960.00usft (RIG)
Reference Site:	9N-59W-01 TIMBRO 0101 PAD	MD Reference:	RKB = 24' @ 4960.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	TIMBRO 0101-16H	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:	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						
9N-59W-01 Offsets						
BUCHER #1 - Todd Gross D/A Well - No Surveys						Out of range
Timbro Ranch 1-41-9-59 - Verdad Pilot Hole - Actual SDI	6,629.03	6,004.06	312.99	242.24	4.424	CC, ES
Timbro Ranch 1-41-9-59 - Verdad Pilot Hole - Actual SDI	6,673.62	6,005.64	315.71	244.19	4.414	SF
Timbro Ranch 1-41-9-59 - Verdad SI Well - Actual SDI Su	8,900.71	7,977.86	305.74	176.01	2.357	CC
Timbro Ranch 1-41-9-59 - Verdad SI Well - Actual SDI Su	9,200.00	8,266.07	311.96	171.85	2.227	ES
Timbro Ranch 1-41-9-59 - Verdad SI Well - Actual SDI Su	10,688.73	9,780.00	429.12	204.80	1.913	SF
9N-59W-01 TIMBRO 0101 PAD						
TIMBRO 0101-01H - Plan B - Design #1	115.82	117.82	112.00	104.47	14.873	CC
TIMBRO 0101-01H - Plan B - Design #1	201.50	203.38	112.00	104.43	14.798	ES, SF
TIMBRO 0101-03H - Plan B - Design #1	201.50	203.50	96.00	88.43	12.684	CC, ES, SF
TIMBRO 0101-05H - Plan B - Design #1	201.50	203.50	80.01	72.44	10.570	CC, ES, SF
TIMBRO 0101-07H - Plan B - Design #1	201.50	202.50	64.00	56.43	8.456	CC, ES, SF
TIMBRO 0101-09H - Plan B - Design #1	201.50	202.50	48.00	40.43	6.342	CC, ES, SF
TIMBRO 0101-11H - Plan B - Design #1	201.50	202.50	32.00	24.44	4.229	CC, ES, SF
TIMBRO 0101-13H - Plan B - Design #1	201.50	202.50	16.00	8.43	2.114	CC, ES, SF
9N-59W-12 Offsets						
BEST #1 - Dunwick D/A Well - No Surveys						Out of range
TIMBRO LC12-78HN - Noble PR Well - Actual DDC Surv						Out of range

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well TIMBRO 0101-16H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 4960.00usft (RIG)
Reference Site:	9N-59W-01 TIMBRO 0101 PAD	MD Reference:	RKB = 24' @ 4960.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	TIMBRO 0101-16H	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:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 24' @ 4960.00usft (RIG)

Offset Depths are relative to Offset Datum

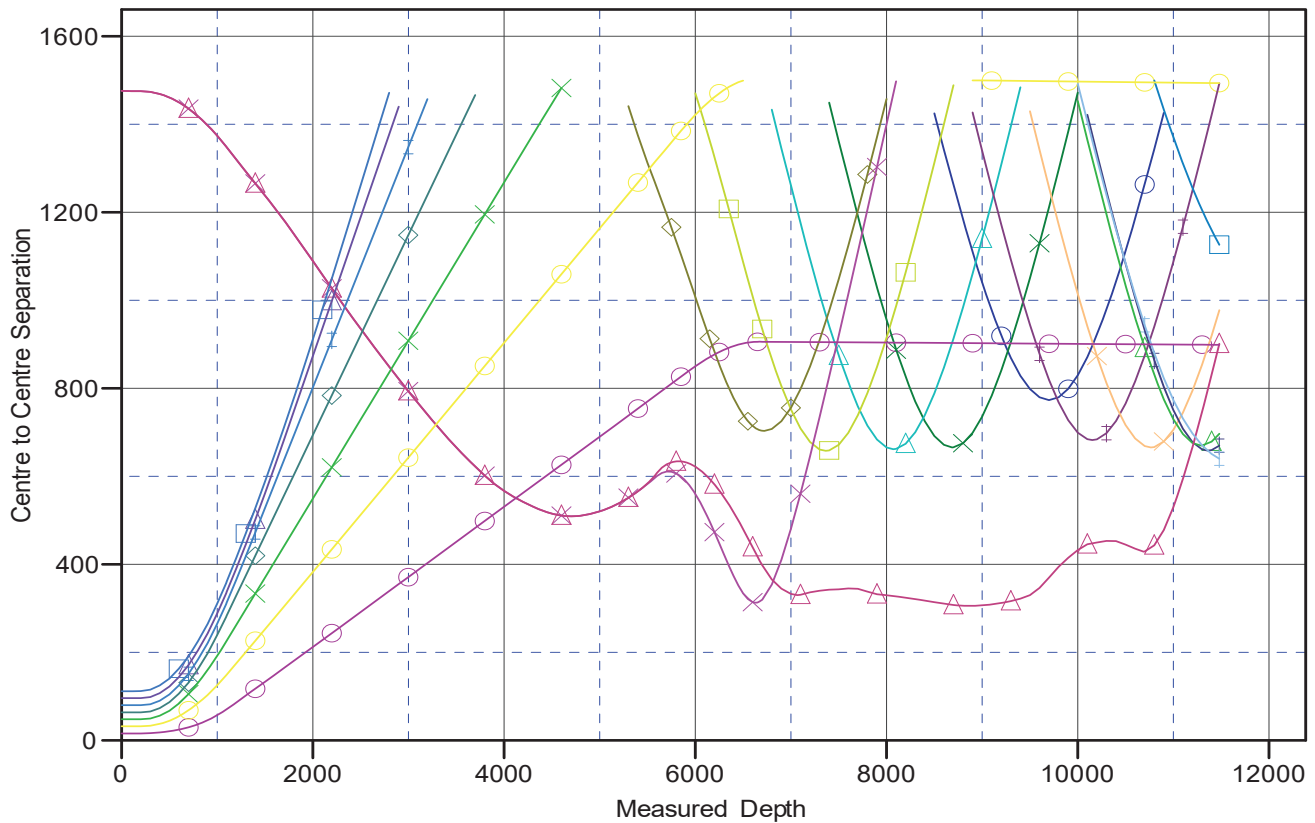
Central Meridian is -105.500000

Coordinates are relative to: TIMBRO 0101-16H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 1.02°

Ladder Plot



LEGEND

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ● Timbro LD06-64HN, Noble PR Well, Actual DDC Surveys V0 ● Nugent LD06-655, Noble PR Well, Actual SLB Surveys V0 ● Nugent LD06-665, Noble PR Well, Actual SLB Surveys V0 ● Heston LD06-630, Noble PR Well, Actual Sperry Surveys (Grid to True) V0 ● REAGAN LD06-675, Noble Planned Well (No COGOC Actual Svys), Planned Noble Surveys V0 ● REAGAN LD06-685, NBL PR Well, Actual Gyrodite & Sperry Surveys V0 ● Heston LD06-625, Noble PR Well, Actual Sperry Surveys (Grid to True) V0 | <ul style="list-style-type: none"> ● Heston LD06-620, Noble Original Well (Grid to True), Actual Sperry Surveys V0 ● Heston LD06-620, Noble Sidetrack Well (Grid to True), Actual Sperry Surveys V0 ● Timbro Ranch 1-41-9-59, Verdad Plot Hole, Actual SDI Surveys V0 ● Timbro Ranch 1-41-9-59, Verdad 9 Well, Actual SDI Surveys V0 ● TIMBRO FEDERAL LD07-78N, Noble PR Well, Actual DDC Surveys V0 ● STRIPES FEDERAL LD16-785, NBL PR Well, Actual BH Surveys V0 ● TIMBRO 0101-13H, Plan B, Design#1 V0 | <ul style="list-style-type: none"> ● TIMBRO 0101-07H, Plan B, Design#1 V0 ● TIMBRO 0101-09H, Plan B, Design#1 V0 ● TIMBRO 0101-03H, Plan B, Design#1 V0 ● TIMBRO 0101-11H, Plan B, Design#1 V0 ● TIMBRO 0101-05H, Plan B, Design#1 V0 ● TIMBRO 0101-01H, Plan B, Design#1 V0 |
|---|--|--|

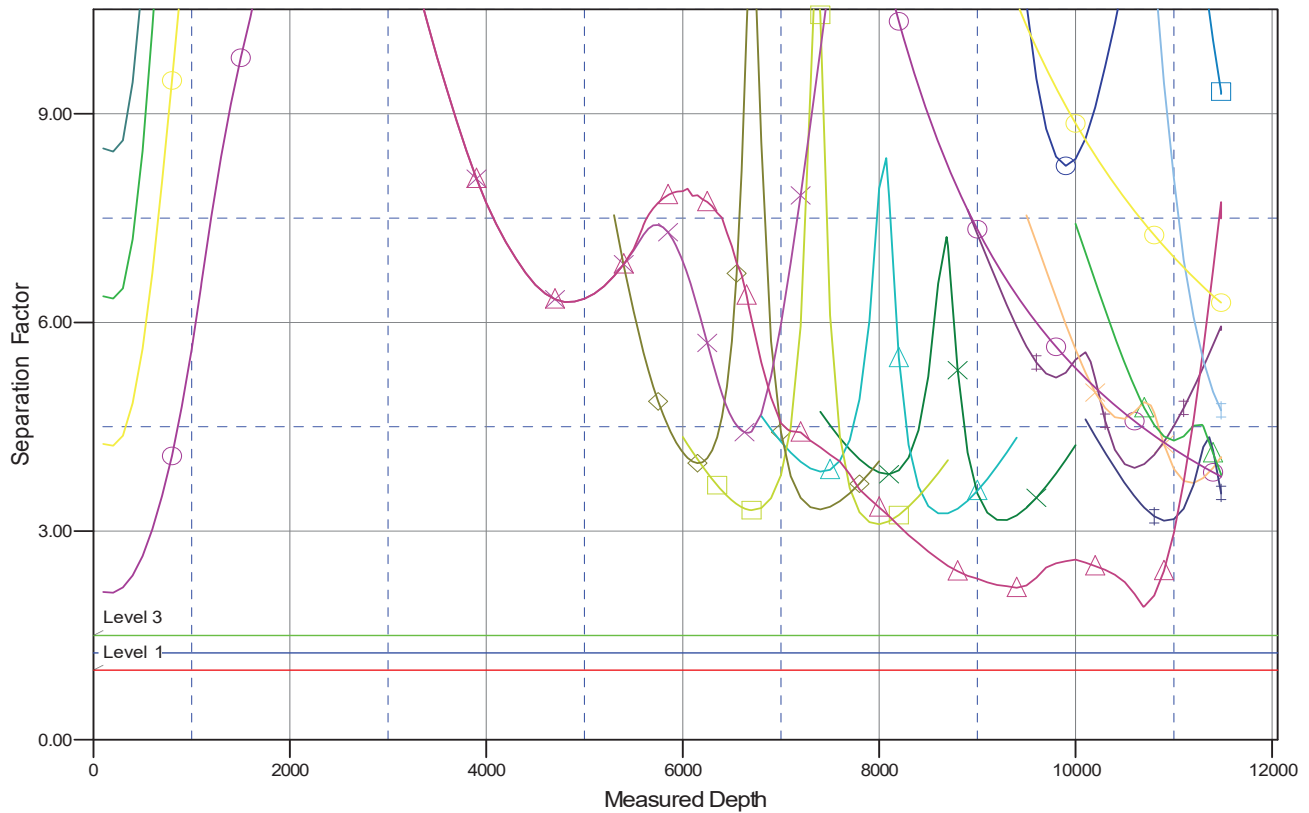
Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well TIMBRO 0101-16H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 4960.00usft (RIG)
Reference Site:	9N-59W-01 TIMBRO 0101 PAD	MD Reference:	RKB = 24' @ 4960.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	TIMBRO 0101-16H	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:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 24' @ 4960.00usft (RIG)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: TIMBRO 0101-16H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 1.02°

Separation Factor Plot



LEGEND

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> Timbro L006-64HN, Noble PR Well, Actual DDC Surveys V0 Nugent L006-655, Noble PR Well, Actual SLB Surveys V0 Nugent L006-665, Noble PR Well, Actual SLB Surveys V0 Heston L006-630, Noble PR Well, Actual Sperry Surveys (Grid to True) V0 REAGAN L006-675, Noble Planned Well (No COGCC Actual Surveys), Planned Noble Surveys V0 REAGAN L006-685, NBL PR Well, Actual Gyrodata & Sperry Surveys V0 Heston L006-625, Noble PR Well, Actual Sperry Surveys (Grid to True) V0 | <ul style="list-style-type: none"> Heston L006-620, Noble Original Well (Grid to True), Actual Sperry Surveys V0 Heston L006-620, Noble Sidetrack Well (Grid to True), Actual Sperry Surveys V0 Timbro Ranch 1-41-9-59, Verdad Plot Hole, Actual SDI Surveys V0 Timbro Ranch 1-41-9-59, Verdad 9 Well, Actual SDI Surveys V0 TIMBRO FEDERAL LD 0779-N, Noble PR Well, Actual DDC Surveys V0 STRIPES FEDERAL LD 15-785, NBL PR Well, Actual BH Surveys V0 TIMBRO 0101-13H, Plan B, Design#1 V0 | <ul style="list-style-type: none"> TIMBRO 0101-07H, Plan B, Design#1 V0 TIMBRO 0101-09H, Plan B, Design#1 V0 TIMBRO 0101-03H, Plan B, Design#1 V0 TIMBRO 0101-11H, Plan B, Design#1 V0 TIMBRO 0101-05H, Plan B, Design#1 V0 TIMBRO 0101-01H, Plan B, Design#1 V0 |
|--|--|--|