

VERDAD RESOURCES

WATTENBERG FIELD

2N-63W-19 KBL PAD

KBL 1830-19H

Plan A

Design #1

Anticollision Summary Report

17 September, 2024

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well KBL 1830-19H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Reference Site:	2N-63W-19 KBL PAD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	KBL 1830-19H	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:	Reference 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	9/17/2024			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,816.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination	
1,816.00	21,342.20	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						
2N-63W-08 OFFSETS						
FEDERAL 14 - NOBLE P&A Well - No Surveys						Out of range
L F RANCHES 2-A - VOG P&A Well - No Surveys						Out of range
2N-63W-17 ACACIA 13-17HZ PAD						
ACACIA 17-1HZ - Plan A - Permit Rev-1	13,761.68	7,815.64	830.56	703.30	6.526	CC
ACACIA 17-1HZ - Plan A - Permit Rev-1	21,342.98	15,383.07	952.47	610.76	2.787	ES, SF
ACACIA 17-9HZ - Plan A - Permit Rev-1	9,500.00	12,859.67	999.11	805.06	5.149	SF
ACACIA 17-9HZ - Plan A - Permit Rev-1	9,700.00	12,666.92	983.24	794.23	5.202	ES
ACACIA 17-9HZ - Plan A - Permit Rev-1	9,784.08	12,583.04	981.82	795.05	5.257	CC
2N-63W-17 Offsets						
CHAMPLIN #1-17 - Rex Family D/A Well - No Surveys						Out of range
EWS #4A - EWS IJ Well - No Surveys						Out of range
PHILLIP #1 - EMC P&A Well - No Surveys						Out of range
UPRR 34 PAN AM #1 - Amoco D/A Well - No Surveys	9,250.00	6,461.85	1,232.86	890.03	3.596	SF
UPRR 34 PAN AM #1 - Amoco D/A Well - No Surveys	9,300.00	6,493.32	1,230.35	888.51	3.599	ES
UPRR 34 PAN AM #1 - Amoco D/A Well - No Surveys	9,326.88	6,509.16	1,229.99	888.81	3.605	CC
UPV #17-1K3 - Patina D/A Well - No Surveys						Out of range
UPV #17-3K3 - Snyder D/A Well - No Surveys						Out of range

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Site Error:	0.00 usft	North Reference:	True
Reference Well:	KBL 1830-19H	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:	Reference Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
2N-63W-18 Offsets						
CUYKENDALL-LAUCK #1 - Habersham Energy P&A We						Out of range
CUYKENDALL-LAUCK #2 - ARCH SI Well - No Surveys						Out of range
CUYKENDALL-LAUCK #3 - Sands-American P&A Well -						Out of range
ELMER KAUFMAN #1 - Sands-American P&A Well - No	7,987.53	5,451.30	1,151.25	837.96	3.675	CC
ELMER KAUFMAN #1 - Sands-American P&A Well - No	8,000.00	5,458.46	1,151.31	837.55	3.669	ES
ELMER KAUFMAN #1 - Sands-American P&A Well - No	8,100.00	5,521.59	1,157.29	840.25	3.650	SF
ELMER KAUFMAN #2 - ARCH SI Well - No Surveys	6,375.14	4,527.93	896.31	646.37	3.586	CC
ELMER KAUFMAN #2 - ARCH SI Well - No Surveys	6,400.00	4,542.14	896.54	645.65	3.573	ES
ELMER KAUFMAN #2 - ARCH SI Well - No Surveys	6,500.00	4,599.28	902.15	647.88	3.548	SF
ELMER KAUFMAN #3 - US Minerals P&A Well - No Surv	8,667.78	5,984.81	1,272.90	1,022.73	5.088	CC
ELMER KAUFMAN #3 - US Minerals P&A Well - No Surv	8,700.00	6,015.76	1,273.65	1,021.79	5.057	ES
ELMER KAUFMAN #3 - US Minerals P&A Well - No Surv	8,850.00	6,157.88	1,296.92	1,037.20	4.994	SF
EWS #4 - EWS 4 IJ Well - No Surveys	8,800.00	6,109.07	177.59	-128.74	0.580	Level 1, ES
EWS #4 - EWS 4 IJ Well - No Surveys	8,850.00	6,155.88	173.51	-125.83	0.580	Level 1, SF
EWS #4 - EWS 4 IJ Well - No Surveys	8,873.18	6,177.29	173.02	-122.32	0.586	Level 1, CC
EWS 4B - EWS IJ Well - Actual Ensign Surveys						Out of range
GUTTERSEN #YY18-715 - NOBLE Drilled Well - Actual	8,798.61	6,851.80	193.60	98.64	2.039	CC
GUTTERSEN #YY18-715 - NOBLE Drilled Well - Actual	8,800.00	6,852.90	193.60	98.62	2.038	ES, SF
GUTTERSEN #YY18-726 - NOBLE Drilled Well - Actual	8,749.94	6,762.86	590.13	434.00	3.780	CC
GUTTERSEN #YY18-726 - NOBLE Drilled Well - Actual	8,750.00	6,762.90	590.13	434.00	3.780	ES, SF
GUTTERSEN #YY18-736 - NOBLE Drilled Well - Actual	8,424.90	6,388.63	1,140.95	991.00	7.609	CC, ES
GUTTERSEN #YY18-736 - NOBLE Drilled Well - Actual	8,550.00	6,454.32	1,146.61	994.71	7.549	SF
GUTTERSEN #YY18-746 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-754 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-764 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-775 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-785 - NOBLE Drilled Well - No EC						Out of range
JOHN CUYKENDALL UNIT #2 - NOBLE P&A Well - No S						Out of range
KAUFMAN #4 - ARCH SI Well - No Surveys	10,496.85	6,667.00	179.81	-156.80	0.534	Level 1, CC
KAUFMAN #4 - ARCH SI Well - No Surveys	10,500.00	6,667.00	179.84	-157.18	0.534	Level 1, ES, SF

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Site Error:	0.00 usft	North Reference:	True
Reference Well:	KBL 1830-19H	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:	Reference 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						
2N-63W-19 KBL PAD						
KBL 1830-17H - Plan A - Design #1	200.00	200.00	29.93	22.36	3.954	CC, ES
KBL 1830-17H - Plan A - Design #1	21,342.98	22,786.75	1,439.77	1,012.46	3.369	SF
KBL 1830-18H - Plan A - Design #1	200.00	200.00	14.83	7.26	1.959	CC, ES
KBL 1830-18H - Plan A - Design #1	21,342.20	22,812.62	722.77	290.86	1.673	SF
KBL 1918-13H - Plan A - Design #1	200.00	200.00	90.06	82.49	11.899	CC, ES
KBL 1918-13H - Plan A - Design #1	300.00	299.92	90.43	82.78	11.822	SF
KBL 1918-14H - Plan A - Design #1	200.00	200.00	74.96	67.39	9.904	CC, ES
KBL 1918-14H - Plan A - Design #1	400.00	399.84	76.56	68.77	9.832	SF
KBL 1918-15H - Plan A - Design #1	200.00	200.00	59.85	52.28	7.908	CC, ES
KBL 1918-15H - Plan A - Design #1	300.00	299.98	60.20	52.55	7.865	SF
KBL 1918-16H - Plan A - Design #1	200.00	200.00	45.03	37.46	5.950	CC, ES
KBL 1918-16H - Plan A - Design #1	300.00	299.98	45.38	37.73	5.929	SF
KBL 1930-07H - VERDAD PR Well - Actual SLB Surveys	221.24	220.42	164.20	156.60	21.623	CC, ES
KBL 1930-07H - VERDAD PR Well - Actual SLB Surveys	300.00	294.53	165.53	157.87	21.601	SF
KBL 1930-08H - VERDAD PR Well - Actual SLB Surveys	152.10	151.10	149.81	142.26	19.841	CC, ES
KBL 1930-08H - VERDAD PR Well - Actual SLB Surveys	300.00	295.85	151.33	143.67	19.746	SF
KBL 1930-09H - VERDAD PR Well - Actual SLB Surveys	0.00	0.00	135.09			
KBL 1930-09H - VERDAD PR Well - Actual SLB Surveys	300.00	297.14	136.17	128.50	17.754	SF
KBL 1930-11H - VERDAD PR Well - Actual SLB Surveys	213.96	213.07	119.45	111.86	15.743	CC, ES
KBL 1930-11H - VERDAD PR Well - Actual SLB Surveys	300.00	297.32	120.33	112.67	15.698	SF
KBL 1930-12H - VERDAD PR Well - Actual SLB Surveys	233.13	232.35	104.16	96.55	13.692	CC, ES
KBL 1930-12H - VERDAD PR Well - Actual SLB Surveys	300.00	298.65	104.48	96.80	13.614	SF
2N-63W-19 Offsets						
BERGLUND #1 - Texaco P/A Well - No Surveys						Out of range
BERGLUND MYERS #42-19 - Simmons Energy D/A We	12,427.89	6,658.00	197.19	-120.16	0.621	Level 1, CC, ES, SF
BERGLUND-MYERS #1 - Barrett Resources P/A Well - N						Out of range
OSCAR & JENNIE BERGLUND #1 - Amoco D/A Well - N	4,835.96	3,634.40	616.50	427.34	3.259	CC
OSCAR & JENNIE BERGLUND #1 - Amoco D/A Well - N	4,900.00	3,670.99	618.74	427.29	3.232	ES, SF
2N-63W-20 Offsets						
WRIGHT #1 - Summit D/A Well - No Surveys	11,700.00	6,642.00	1,165.88	843.30	3.614	ES, SF
WRIGHT #1 - Summit D/A Well - No Surveys	11,750.71	6,642.00	1,164.78	843.54	3.626	CC
2N-63W-30 Offsets						
LAUCK #1 - Siler Earl F DA Well - No Surveys	18,412.55	6,632.00	1,485.69	1,103.25	3.885	CC, ES, SF

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Reference Well:	KBL 1830-19H	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:	Reference Datum

Reference Depths are relative to RKB = 21' @ 4882.00usft (RIG)

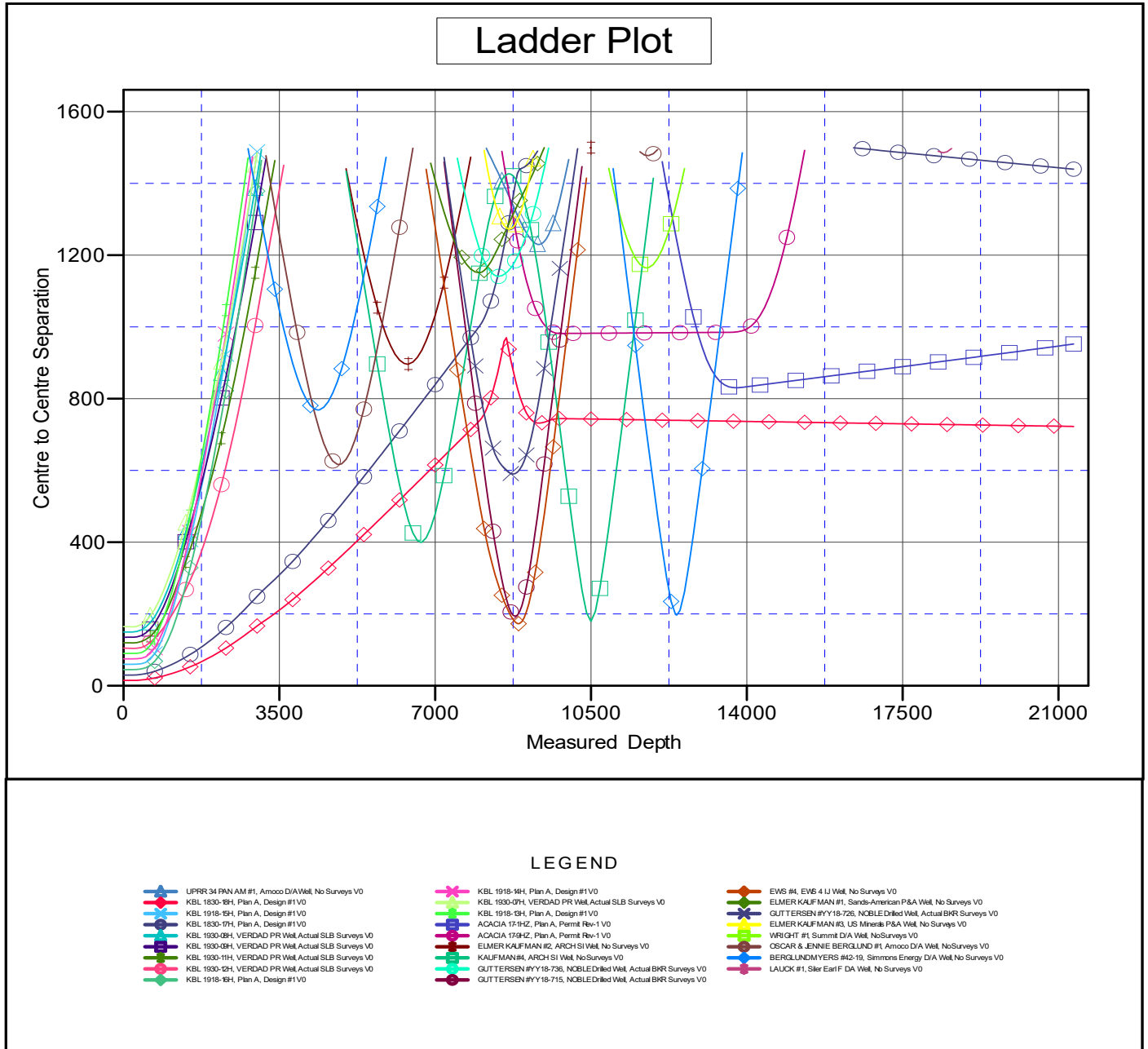
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: KBL 1830-19H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.66°



Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well KBL 1830-19H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
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Site Error:	0.00 usft	North Reference:	True
Reference Well:	KBL 1830-19H	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:	Reference Datum

Reference Depths are relative to RKB = 21' @ 4882.00usft (RIG)

Offset Depths are relative to Offset Datum

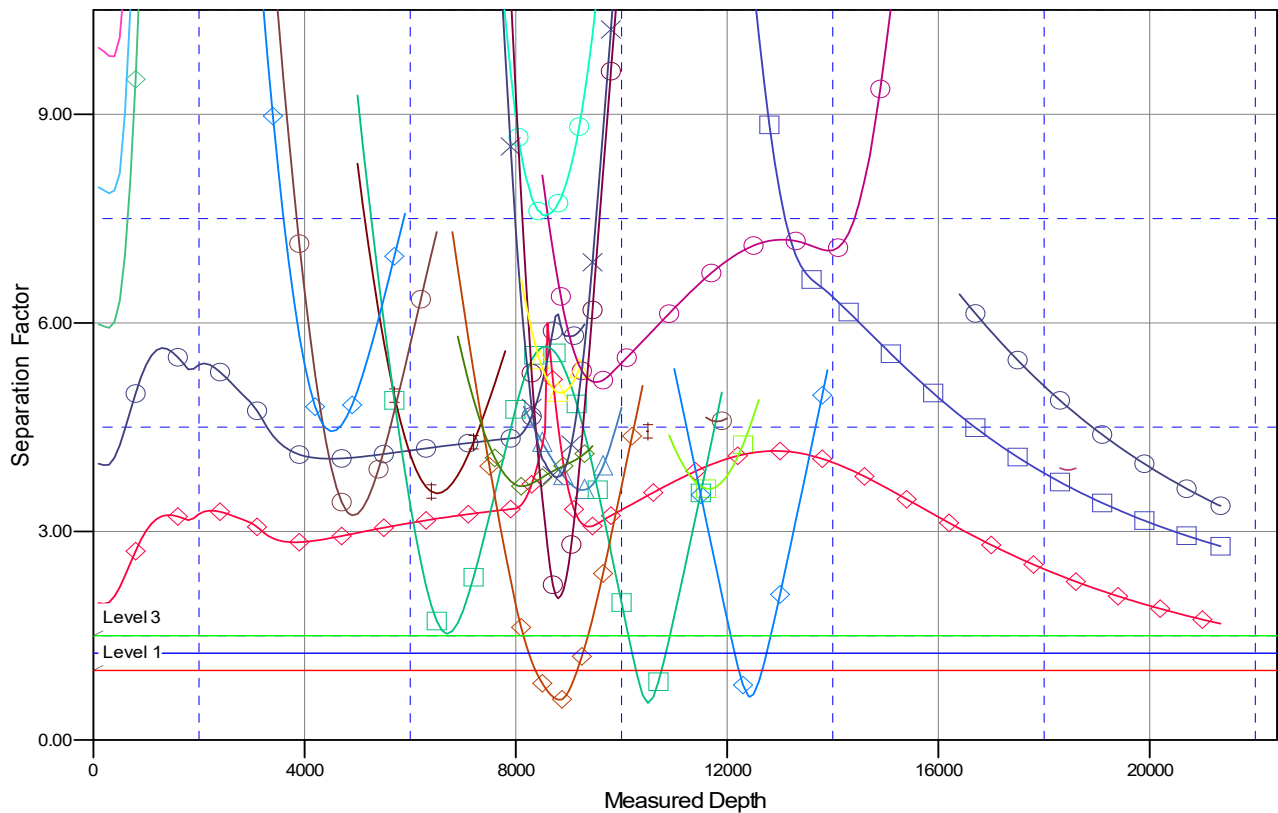
Central Meridian is -105.500000

Coordinates are relative to: KBL 1830-19H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.66°

Separation Factor Plot



LEGEND

UPRR 34 PAN AM #1, Amoco D/A Well, No Surveys V0	KBL 1918-18H, Plan A, Design #1 V0	EW5 #4, EW5 4 U Well, No Surveys V0
KBL 1830-18H, Plan A, Design #1 V0	KBL 1830-0H, VERDAD PR Well, Actual SLB Surveys V0	ELMER KAUFMAN #1, Sands-American P&A Well, No Surveys V0
KBL 1918-18H, Plan A, Design #1 V0	KBL 1918-18H, Plan A, Design #1 V0	GUTTERSEN #YY18-726, NOBLE Drilled Well, Actual BRR Surveys V0
KBL 1830-0H, Plan A, Design #1 V0	ACACIA 17-1H2, Plan A, Permit Rev-1 V0	ELMER KAUFMAN #3, US Minerals P&A Well, No Surveys V0
KBL 1830-0H, VERDAD PR Well, Actual SLB Surveys V0	KBL 1830-0H, VERDAD PR Well, Actual SLB Surveys V0	WRIGHT #1, Summit D/A Well, No Surveys V0
KBL 1830-11H, VERDAD PR Well, Actual SLB Surveys V0	ELMER KAUFMAN #2, ARCH SI Well, No Surveys V0	OSCAR & JENNE BERGLUND #1, Amoco D/A Well, No Surveys V0
KBL 1830-12H, VERDAD PR Well, Actual SLB Surveys V0	KAUFMAN #1, ARCH SI Well, No Surveys V0	BERGLUND MYERS #42-18, Simmons Energy D/A Well, No Surveys V0
KBL 1830-12H, VERDAD PR Well, Actual SLB Surveys V0	GUTTERSEN #YY18-736, NOBLE Drilled Well, Actual BRR Surveys V0	LAUCK #1, Sier Earl F DA Well, No Surveys V0
KBL 1918-18H, Plan A, Design #1 V0	GUTTERSEN #YY18-715, NOBLE Drilled Well, Actual BRR Surveys V0	