

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-22 FAWN 2734 & 2833 PAD

FAWN 2734-13H

Plan A

Design #1

Anticollision Summary Report

30 July, 2022

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well FAWN 2734-13H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Reference Site:	1N-65W-22 FAWN 2734 & 2833 PAD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	FAWN 2734-13H	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	7/30/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	2,250.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination
2,250.00	17,629.90	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-65W-22 FAWN 2734 & 2833 PAD						
FAWN 2734-05H - Plan A - Design #1	302.47	302.47	127.99	120.34	16.714	CC
FAWN 2734-05H - Plan A - Design #1	342.40	341.96	128.01	120.31	16.615	ES, SF
FAWN 2734-06H - Plan A - Design #1	342.40	342.40	111.99	104.29	14.535	CC, ES
FAWN 2734-06H - Plan A - Design #1	400.00	398.46	112.85	105.07	14.505	SF
FAWN 2734-07H - Plan A - Design #1	342.40	342.40	95.99	88.29	12.458	CC, ES
FAWN 2734-07H - Plan A - Design #1	400.00	400.00	96.57	88.79	12.409	SF
FAWN 2734-08H - Plan A - Design #1	342.40	342.40	79.99	72.29	10.382	CC, ES
FAWN 2734-08H - Plan A - Design #1	400.00	400.00	80.57	72.79	10.353	SF
FAWN 2734-09H - Plan A - Design #1	342.40	342.40	63.99	56.29	8.305	CC, ES
FAWN 2734-09H - Plan A - Design #1	400.00	400.00	64.57	56.79	8.297	SF
FAWN 2734-10H - Plan A - Design #1	342.40	342.40	48.00	40.30	6.230	CC, ES
FAWN 2734-10H - Plan A - Design #1	17,000.00	16,800.00	1,470.40	1,009.19	3.188	SF
FAWN 2734-11H - Plan A - Design #1	342.40	342.40	32.00	24.30	4.153	CC, ES
FAWN 2734-11H - Plan A - Design #1	16,600.00	16,404.32	928.95	485.86	2.097	SF
FAWN 2734-12H - Plan A - Design #1	342.40	342.40	16.00	8.30	2.077	CC
FAWN 2734-12H - Plan A - Design #1	16,500.00	16,381.94	400.54	-38.33	0.913	Level 1, ES, SF
FAWN 2734-14H - Plan A - Design #1	200.00	200.00	16.00	8.43	2.114	CC, ES
FAWN 2734-14H - Plan A - Design #1	17,630.66	17,763.53	521.37	27.80	1.056	Level 2, SF
FAWN 2833-01H - Plan A - Design #1	200.00	200.00	191.99	184.43	25.367	CC, ES
FAWN 2833-01H - Plan A - Design #1	300.00	293.72	193.61	185.97	25.317	SF
FAWN 2833-02H - Plan A - Design #1	200.00	200.00	175.99	168.43	23.253	CC, ES
FAWN 2833-02H - Plan A - Design #1	300.00	296.05	176.76	169.11	23.104	SF
FAWN 2833-03H - Plan A - Design #1	204.44	204.44	159.99	152.42	21.131	CC, ES
FAWN 2833-03H - Plan A - Design #1	342.40	338.02	161.12	153.42	20.930	SF
FAWN 2833-04H - Plan A - Design #1	300.00	300.00	143.99	136.34	18.810	CC, ES
FAWN 2833-04H - Plan A - Design #1	342.40	340.42	144.28	136.58	18.732	SF

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Site Error:	0.00 usft	North Reference:	True
Reference Well:	FAWN 2734-13H	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

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-22 Offsets						
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv	5,524.18	5,925.99	217.11	125.21	2.362	CC
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv	5,600.00	5,998.66	217.99	124.36	2.328	ES
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv	5,700.00	6,097.37	221.23	125.97	2.322	SF
CANAL 22-1-4L - Confluence PR Well - Actual BKR Surv	7,000.00	7,511.89	626.95	563.51	9.882	SF
CANAL 22-1-4L - Confluence PR Well - Actual BKR Surv	7,358.91	7,770.81	529.41	479.05	10.513	CC, ES
CANAL 22-2-2L - Confluence PR Well - Actual BKR Surv	7,306.87	7,694.77	132.37	80.69	2.561	CC, ES
CANAL 22-2-2L - Confluence PR Well - Actual BKR Surv	7,350.00	7,699.36	139.34	82.89	2.468	SF
CANAL 22-3-3L - Confluence PR Well - Actual BKR Surv	6,700.00	7,233.28	907.77	852.57	16.444	SF
CANAL 22-3-3L - Confluence PR Well - Actual BKR Surv	7,229.52	7,726.04	802.60	754.04	16.529	CC, ES
CANAL 22-4-2L - Confluence PR Well - Actual BKR Surv	7,120.96	7,683.60	1,072.69	1,025.70	22.829	CC, ES
CANAL 22-4-2L - Confluence PR Well - Actual BKR Surv	7,200.00	7,686.07	1,075.98	1,028.59	22.708	SF
DRAKE 01N-65W-22-8N - Verdad PR Well - Actual Ensig	7,213.59	6,964.60	287.07	245.22	6.859	CC, ES
DRAKE 01N-65W-22-8N - Verdad PR Well - Actual Ensig	7,300.00	6,972.00	300.64	254.36	6.496	SF
LONG 22-15-6NCH - Confluence Original Well - Actual B						Out of range
LONG 22-15-6NCH - Confluence PR Sidetrack - Actual B						Out of range
WILLOW 22-14-2L - Confluence PR Well - Actual BKR S	360.30	358.51	1,159.29	1,151.55	149.760	CC, ES
WILLOW 22-14-2L - Confluence PR Well - Actual BKR S	3,000.00	3,120.06	1,489.08	1,470.32	79.368	SF
WILLOW 22-15-3L - Confluence PR Well - Actual Baker	355.12	351.39	1,184.70	1,176.97	153.215	CC, ES
WILLOW 22-15-3L - Confluence PR Well - Actual Baker	2,300.00	2,364.56	1,482.74	1,466.86	93.398	SF
WILLOW 22-17-2L - Confluence PR Well - Actual BKR S	315.82	306.82	1,235.51	1,227.83	160.715	CC
WILLOW 22-17-2L - Confluence PR Well - Actual BKR S	342.40	332.81	1,235.52	1,227.80	160.053	ES
WILLOW 22-17-2L - Confluence PR Well - Actual BKR S	1,800.00	1,822.13	1,491.32	1,478.35	114.989	SF
WILLOW 22-18-3L - Confluence PR Well - Actual BKR S	0.00	0.00	1,286.28			
WILLOW 22-18-3L - Confluence PR Well - Actual BKR S	100.00	89.77	1,286.28	1,278.75	170.809	ES
WILLOW 22-18-3L - Confluence PR Well - Actual BKR S	1,500.00	1,460.39	1,496.84	1,485.50	132.022	SF
WILLOW 22-20-2L - Confluence PR Well - Actual BKR S	0.00	0.00	1,336.64			
WILLOW 22-20-2L - Confluence PR Well - Actual BKR S	1,200.00	1,095.47	1,483.43	1,473.48	149.153	SF
WILLOW 22-21-3L - Confluence PR Well - Actual BKR S	359.79	359.06	1,360.91	1,353.16	175.637	CC, ES
WILLOW 22-21-3L - Confluence PR Well - Actual BKR S	1,121.90	996.35	1,486.44	1,476.82	154.495	SF
WILLOW 22-4-4L - Confluence PR Well - Actual BKR Su	352.48	347.45	1,133.81	1,126.09	146.764	CC, ES
WILLOW 22-4-4L - Confluence PR Well - Actual BKR Su	3,600.00	3,751.23	1,492.28	1,470.33	67.973	SF
WILLOW 22-5-4L - Confluence PR Well - Actual BKR Su	353.18	348.92	1,260.14	1,252.41	162.915	CC, ES
WILLOW 22-5-4L - Confluence PR Well - Actual BKR Su	1,400.00	1,321.40	1,475.13	1,464.22	135.111	SF
1N-65W-27 Offsets						
ROWE 13N-27HZ - VERDAD PR Well - Actual BHI Surv	8,400.00	8,315.58	37.73	-38.99	0.492	Level 1, ES
ROWE 13N-27HZ - VERDAD PR Well - Actual BHI Surv	8,448.05	8,347.19	11.20	-25.54	0.305	Level 1, CC, SF
1N-65W-28 Offsets Incomplete						
*GLEN YOUNG 1 - KPK P&A Well - No Surveys						Out of range
*NECKIEN 1 - RENEGADE T/A Well - No Surveys						Out of range
YOUNG 01N-65W-28-8N - VERDAD PR Well - Actual En						Out of range
1N-65W-33 Offsets Incomplete						
*HSR-CHERRY KNOLLS 9-33 - KMG D/A Well - No Surv						Out of range
BUFORD 33-10-2L - Confluence Drilled Well - Plan Only						Out of range
BUFORD 33-6-2L - Confluence Planned Well - BKR Plan						Out of range
BUFORD 33-6-4L - Confluence Planned Well - Planned B						Out of range
DESHA 4-15-1 - Confluence PR Well - Actual BKR Surve						Out of range

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Reference Well:	FAWN 2734-13H	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

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-34 Offsets						
DESHA 4-1-3L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-1-4L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-2-2L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-2-4L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-3-1L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-4-3L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-5-2L - Confluence Planned Well - BKR Planne						Out of range
DESHA 4-6-1L - Confluence Planned Well - BKR Planne						Out of range
JORDAN #34-2 - KPK PR Well - No Surveys						Out of range
JORDAN #34-3 - KPK PR Well - No Surveys						Out of range
JORDAN #34-4 - KPK PR Well - No Surveys	16,333.50	7,274.00	152.57	-318.82	0.324	Level 1, CC, ES, SF
JORDAN #34-5 - KPK PR Well - No Surveys						Out of range
JORDAN #34-6 - BERGE D/A Well - No Surveys	16,333.55	7,249.00	1,182.82	712.32	2.514	CC, ES, SF
JORDAN #34-7 - KPK P&A Well - No Surveys	15,200.00	7,256.00	1,404.39	960.44	3.163	SF
JORDAN #34-7 - KPK P&A Well - No Surveys	15,238.07	7,256.00	1,403.88	960.20	3.164	CC, ES
JORDAN #34-8 - KPK D/A Well - No Surveys	15,188.79	7,270.00	77.86	-365.17	0.176	Level 1, CC
JORDAN #34-8 - KPK D/A Well - No Surveys	15,200.00	7,270.00	78.67	-369.18	0.176	Level 1, ES, SF
JORDAN #34-9 - BERGE P&A Well - No Surveys						Out of range
JORDAN, IVAR #1 - KPK PR Well - No Surveys	14,000.00	7,253.00	275.67	-143.03	0.658	Level 1, ES, SF
JORDAN, IVAR #1 - KPK PR Well - No Surveys	14,007.11	7,253.00	275.58	-142.43	0.659	Level 1, CC
JORDAN-LOUSTAUNAU #34-10 - KPK D/A Well - No Su						Out of range
JUDY 3-4 - Confluence PR Well - Actual Ensign Surveys						Out of range
JUDY 34-03-07 - Confluence Planned Well - Pro Directio						Out of range
JUDY 34-03-08 - Confluence Planned Well - Pro Directio						Out of range
JUDY 34-03-09 - Confluence Planned Well - Pro Directio						Out of range
1N-65W-35 Offsets Incomplete						
DOUBLE J 35-11-1CDH - Providence Planned Well - BK						Out of range

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

Reference Depths are relative to RKB = 20 @ 5127.00usft (RIG)

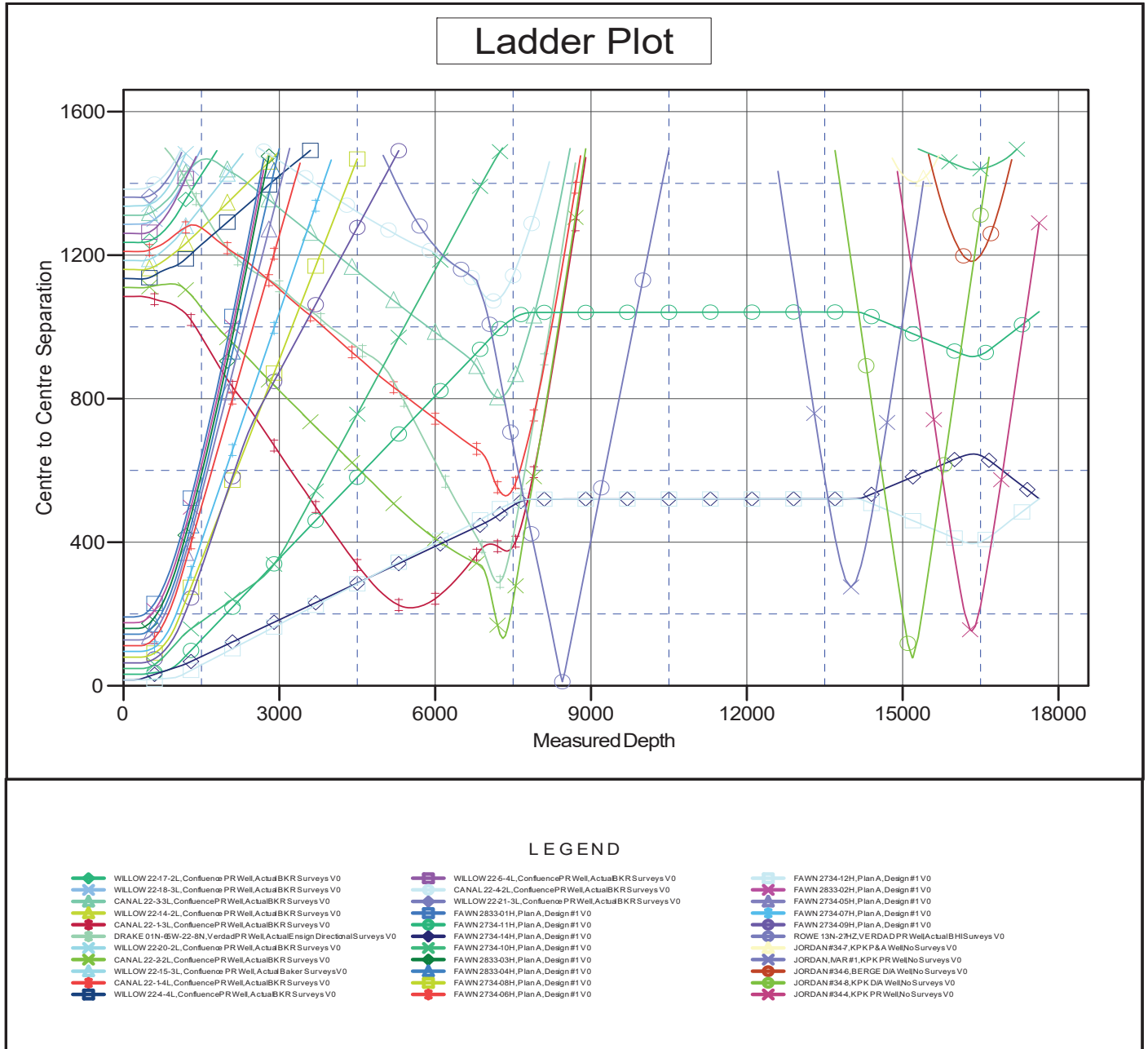
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: FAWN 2734-13H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.55°



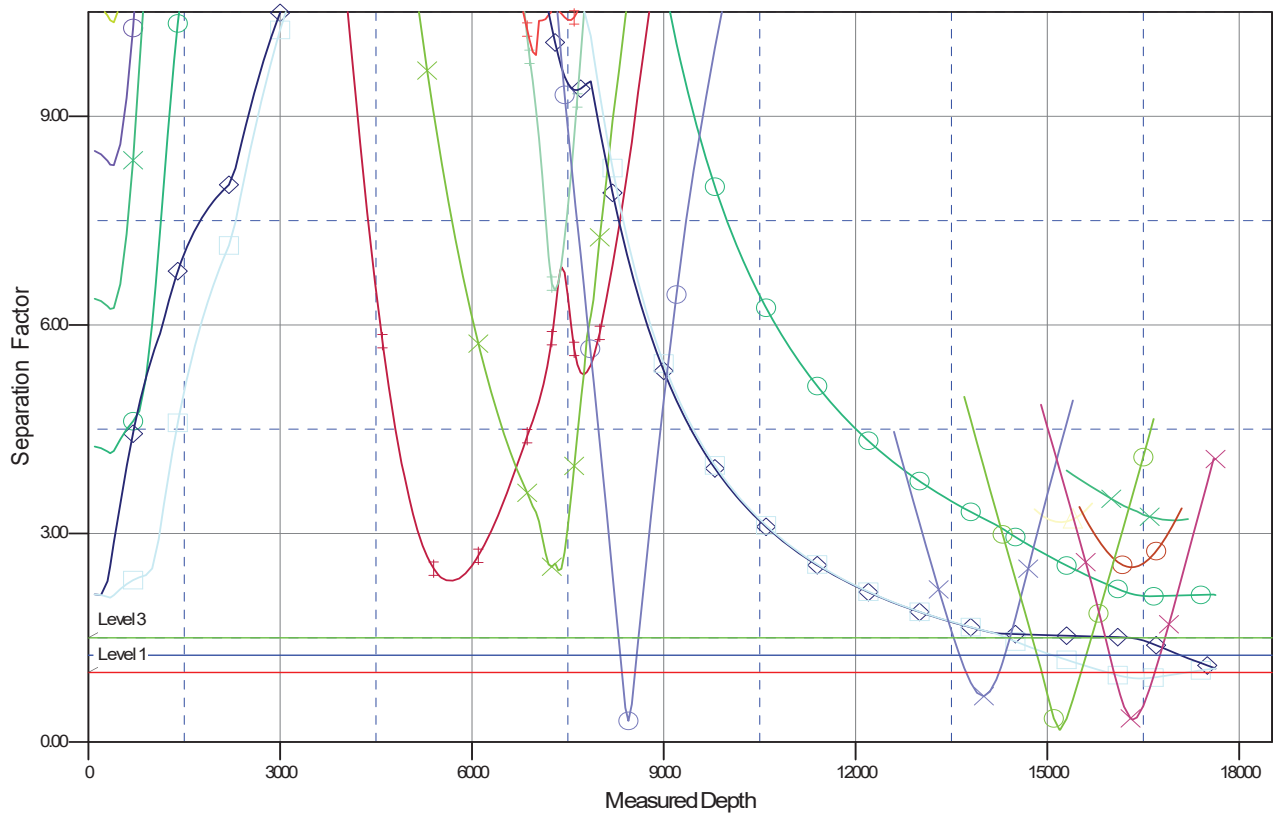
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 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: FAWN 2734-13H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.55°

Separation Factor Plot



LEGEND

WILLOW 22-17-2L, Confluence PR Well, Actual BKR Surveys V0	WILLOW 22-6-4L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-12H, Plan A, Design #1 V0
WILLOW 22-18-3L, Confluence PR Well, Actual BKR Surveys V0	CANAL 22-4-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2833-02H, Plan A, Design #1 V0
CANAL 22-3-3L, Confluence PR Well, Actual BKR Surveys V0	WILLOW 22-21-3L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-05H, Plan A, Design #1 V0
WILLOW 22-14-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2833-01H, Plan A, Design #1 V0	FAWN 2734-07H, Plan A, Design #1 V0
CANAL 22-1-3L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-11H, Plan A, Design #1 V0	FAWN 2734-09H, Plan A, Design #1 V0
DRAKE 01N-65W-22-8N, Verdad PR Well, Actual Ensign Directional Surveys V0	FAWN 2734-14H, Plan A, Design #1 V0	ROWE 13N-27H-22 VERDAD PR Well Actual BHIS Surveys V0
WILLOW 22-20-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-10H, Plan A, Design #1 V0	JORDAN #34-7, KPK P&A Well No Surveys V0
CANAL 22-2-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2833-03H, Plan A, Design #1 V0	JORDAN #34-8, KPK P&A Well No Surveys V0
WILLOW 22-15-3L, Confluence PR Well, Actual Baker Surveys V0	FAWN 2833-04H, Plan A, Design #1 V0	JORDAN #34-6, BERGE DA Well No Surveys V0
CANAL 22-1-4L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-05H, Plan A, Design #1 V0	JORDAN #34-4, KPK DA Well No Surveys V0
WILLOW 22-4-4L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-06H, Plan A, Design #1 V0	JORDAN #34-4, KPK PR Well No Surveys V0