

VERDAD RESOURCES

WATTENBERG FIELD

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

FAWN 2833-04H

Plan A

Design #1

Anticollision Summary Report

30 July, 2022

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well FAWN 2833-04H
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 2833-04H	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	17,946.27	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-09 Offsets Incomplete						
ROBIN 9-10HZ - KMG PR Well - Actual BKR Surveys						Out of range
ROBIN 9-11HZ - KMG PR Well - Actual BKR Surveys						Out of range
ROBIN 9-12HZ - KMG PR Well - Actual BKR Surveys						Out of range
ROBIN 9-13HZ - KMG PR Well - Actual BKR Surveys	7,723.69	18,399.00	1,290.11	1,110.60	7.187	CC, ES
ROBIN 9-13HZ - KMG PR Well - Actual BKR Surveys	7,800.00	18,399.00	1,295.19	1,114.56	7.171	SF
ROBIN 9-14HZ - KMG PR Well - Actual BKR Surveys	7,750.74	18,490.00	1,127.17	954.20	6.516	CC, ES
ROBIN 9-14HZ - KMG PR Well - Actual BKR Surveys	7,800.00	18,490.00	1,129.74	956.17	6.509	SF
ROBIN 9-15HZ - KMG PR Well - Actual BKR Surveys	7,671.52	18,345.00	852.35	684.89	5.090	CC, ES, SF
ROBIN 9-16HZ - KMG PR Well - Actual BKR Surveys	7,600.00	18,356.00	622.28	471.00	4.113	ES, SF
ROBIN 9-16HZ - KMG PR Well - Actual BKR Surveys	7,613.44	18,356.00	622.01	471.11	4.122	CC
ROBIN 9-17HZ - KMG PR Well - Actual BKR Surveys	7,600.00	18,363.00	655.76	525.91	5.050	SF
ROBIN 9-17HZ - KMG PR Well - Actual BKR Surveys	7,650.00	18,363.00	651.47	522.86	5.065	ES
ROBIN 9-17HZ - KMG PR Well - Actual BKR Surveys	7,652.79	18,363.00	651.46	522.93	5.068	CC
ROBIN 9-18HZ - Kerr McGee PR Well - Actual BKR Surv	7,539.70	18,279.00	544.96	412.05	4.100	CC, ES
ROBIN 9-18HZ - Kerr McGee PR Well - Actual BKR Surv	7,550.00	18,279.00	545.13	412.13	4.099	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

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Offset Well - Wellbore - Design						
1N-65W-22 FAWN 2734 & 2833 PAD						
FAWN 2734-05H - Plan A - Design #1	301.00	301.00	16.00	8.34	2.090	CC, ES
FAWN 2734-05H - Plan A - Design #1	17,946.27	17,755.29	553.25	60.99	1.124	Level 2, SF
FAWN 2734-06H - Plan A - Design #1	301.00	301.00	32.00	24.34	4.180	CC, ES
FAWN 2734-06H - Plan A - Design #1	17,946.27	17,607.77	1,074.61	582.43	2.183	SF
FAWN 2734-07H - Plan A - Design #1	301.00	301.00	48.00	40.34	6.270	CC, ES, SF
FAWN 2734-08H - Plan A - Design #1	301.00	301.00	64.00	56.35	8.359	CC, ES, SF
FAWN 2734-09H - Plan A - Design #1	301.00	301.00	80.00	72.35	10.449	CC, ES, SF
FAWN 2734-10H - Plan A - Design #1	301.00	301.00	95.99	88.34	12.538	CC, ES, SF
FAWN 2734-11H - Plan A - Design #1	301.00	301.00	111.99	104.34	14.628	CC, ES
FAWN 2734-11H - Plan A - Design #1	400.00	399.75	113.70	105.92	14.612	SF
FAWN 2734-12H - Plan A - Design #1	301.00	301.00	127.99	120.34	16.718	CC, ES
FAWN 2734-12H - Plan A - Design #1	400.00	398.75	129.84	122.06	16.690	SF
FAWN 2734-13H - Plan A - Design #1	301.00	301.00	143.99	136.34	18.807	CC, ES
FAWN 2734-13H - Plan A - Design #1	400.00	397.19	146.25	138.48	18.806	SF
FAWN 2734-14H - Plan A - Design #1	200.00	200.00	159.99	152.43	21.139	CC, ES
FAWN 2734-14H - Plan A - Design #1	301.00	295.68	161.65	154.00	21.133	SF
FAWN 2833-01H - Plan A - Design #1	200.00	200.00	48.00	40.43	6.342	CC, ES, SF
FAWN 2833-02H - Plan A - Design #1	208.78	208.78	32.00	24.43	4.225	CC, ES
FAWN 2833-02H - Plan A - Design #1	17,946.27	18,639.11	1,490.46	997.66	3.024	SF
FAWN 2833-03H - Plan A - Design #1	203.93	203.93	16.00	8.43	2.113	CC, ES
FAWN 2833-03H - Plan A - Design #1	17,946.27	18,372.63	993.84	500.67	2.015	SF
1N-65W-22 Offsets						
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv	2,064.39	2,057.26	96.72	69.34	3.532	CC, ES, SF
CANAL 22-1-4L - Confluence PR Well - Actual BKR Surv	2,500.04	2,437.45	156.46	126.83	5.281	CC, ES, SF
CANAL 22-2-2L - Confluence PR Well - Actual BKR Surv	2,176.56	2,153.83	87.58	59.67	3.138	CC, ES, SF
CANAL 22-3-3L - Confluence PR Well - Actual BKR Surv	2,808.17	2,718.12	202.55	170.85	6.389	CC, ES, SF
CANAL 22-4-2L - Confluence PR Well - Actual BKR Surv	2,974.12	2,875.46	209.33	175.86	6.255	CC, ES, SF
DRAKE 01N-65W-22-8N - Verdad PR Well - Actual Ensig						Out of range
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	2,804.63	2,665.17	131.42	102.60	4.560	CC, ES, SF
WILLOW 22-15-3L - Confluence PR Well - Actual Baker	3,031.16	2,864.43	135.75	105.56	4.496	CC, ES, SF
WILLOW 22-17-2L - Confluence PR Well - Actual BKR S	3,354.87	3,156.21	142.51	109.62	4.332	CC, ES
WILLOW 22-17-2L - Confluence PR Well - Actual BKR S	3,400.00	3,196.57	143.91	110.48	4.305	SF
WILLOW 22-18-3L - Confluence PR Well - Actual BKR S	3,731.33	3,498.98	154.53	117.82	4.210	CC, ES
WILLOW 22-18-3L - Confluence PR Well - Actual BKR S	3,800.00	3,561.43	157.10	119.46	4.173	SF
WILLOW 22-20-2L - Confluence PR Well - Actual BKR S	4,161.98	3,896.01	180.67	138.69	4.303	CC
WILLOW 22-20-2L - Confluence PR Well - Actual BKR S	4,200.00	3,931.22	181.22	138.56	4.248	ES, SF
WILLOW 22-21-3L - Confluence PR Well - Actual BKR S	4,632.58	4,336.22	182.99	134.34	3.762	CC, ES
WILLOW 22-21-3L - Confluence PR Well - Actual BKR S	4,700.00	4,398.96	184.55	134.60	3.695	SF
WILLOW 22-4-4L - Confluence PR Well - Actual BKR Su	2,686.64	2,560.04	118.38	90.33	4.221	CC, ES
WILLOW 22-4-4L - Confluence PR Well - Actual BKR Su	2,700.00	2,571.18	118.60	90.40	4.206	SF
WILLOW 22-5-4L - Confluence PR Well - Actual BKR Su	3,902.95	3,658.67	178.86	139.92	4.593	CC, ES
WILLOW 22-5-4L - Confluence PR Well - Actual BKR Su	4,000.00	3,748.78	182.46	142.23	4.536	SF
1N-65W-27 Offsets						
ROWE 13N-27HZ - VERDAD PR Well - Actual BHI Surv	12,300.00	13,690.00	953.57	663.01	3.282	SF
ROWE 13N-27HZ - VERDAD PR Well - Actual BHI Surv	12,400.00	13,690.00	934.38	654.28	3.336	ES
ROWE 13N-27HZ - VERDAD PR Well - Actual BHI Surv	12,531.16	13,690.00	925.13	663.23	3.532	CC

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Reference Well:	FAWN 2833-04H	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-28 Offsets Incomplete						
*GLEN YOUNG 1 - KPK P&A Well - No Surveys	9,071.36	7,183.00	863.45	563.15	2.875	CC
*GLEN YOUNG 1 - KPK P&A Well - No Surveys	9,100.00	7,183.00	863.92	561.62	2.858	ES
*GLEN YOUNG 1 - KPK P&A Well - No Surveys	9,200.00	7,183.00	872.98	563.66	2.822	SF
*NECKIEN 1 - RENEGADE T/A Well - No Surveys	11,988.50	7,177.00	1,054.74	691.20	2.901	CC
*NECKIEN 1 - RENEGADE T/A Well - No Surveys	12,100.00	7,177.00	1,060.62	689.85	2.861	ES
*NECKIEN 1 - RENEGADE T/A Well - No Surveys	12,200.00	7,177.00	1,075.74	699.51	2.859	SF
YOUNG 01N-65W-28-8N - VERDAD PR Well - Actual En	11,845.96	11,133.47	457.57	264.28	2.367	CC
YOUNG 01N-65W-28-8N - VERDAD PR Well - Actual En	12,600.00	11,808.00	479.52	235.08	1.962	ES, SF
1N-65W-33 Offsets Incomplete						
*HSR-CHERRY KNOLLS 9-33 - KMG D/A Well - No Surv	16,893.06	7,252.00	229.86	-249.79	0.479	Level 1, CC
*HSR-CHERRY KNOLLS 9-33 - KMG D/A Well - No Surv	16,900.00	7,252.00	229.96	-251.26	0.478	Level 1, ES, SF
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
1N-65W-34 Offsets						
DESHA 4-1-3L - Confluence Planned Well - BKR Planne	17,946.27	7,290.04	542.82	316.70	2.401	CC, ES, SF
DESHA 4-1-4L - Confluence Planned Well - BKR Planne	17,946.27	7,386.21	441.69	318.70	3.591	CC, ES, SF
DESHA 4-2-2L - Confluence Planned Well - BKR Planne	17,946.27	7,274.65	459.51	343.43	3.959	CC, ES, SF
DESHA 4-2-4L - Confluence Planned Well - BKR Planne	17,946.27	7,274.39	1,196.63	958.20	5.019	CC, ES, SF
DESHA 4-3-1L - Confluence Planned Well - BKR Planne	17,946.27	7,220.50	694.28	526.63	4.141	CC, ES, SF
DESHA 4-4-3L - Confluence Planned Well - BKR Planne	17,946.27	7,343.24	798.58	584.77	3.735	CC, ES, SF
DESHA 4-5-2L - Confluence Planned Well - BKR Planne	17,946.27	7,324.41	1,075.97	843.00	4.619	CC, ES, SF
DESHA 4-6-1L - Confluence Planned Well - BKR Planne	17,946.27	7,218.43	1,493.43	1,252.09	6.188	CC, ES, SF
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						Out of range
JORDAN #34-5 - KPK PR Well - No Surveys						Out of range
JORDAN #34-6 - BERGE D/A Well - No Surveys						Out of range
JORDAN #34-7 - KPK P&A Well - No Surveys						Out of range
JORDAN #34-8 - KPK D/A Well - No Surveys						Out of range
JORDAN #34-9 - BERGE P&A Well - No Surveys	17,696.58	7,260.00	1,035.03	538.88	2.086	CC, ES, SF
JORDAN, IVAR #1 - KPK PR Well - No Surveys						Out of range
JORDAN-LOUSTAUNAU #34-10 - KPK D/A Well - No Su	15,900.00	7,220.00	1,027.84	572.81	2.259	SF
JORDAN-LOUSTAUNAU #34-10 - KPK D/A Well - No Su	15,948.05	7,220.00	1,026.71	572.70	2.261	CC, ES
JUDY 3-4 - Confluence PR Well - Actual Ensign Surveys	17,946.27	7,442.18	1,358.05	1,103.85	5.342	CC, ES, SF
JUDY 34-03-07 - Confluence Planned Well - Pro Directio	17,946.27	7,150.00	1,231.28	959.52	4.531	CC, ES, SF
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 Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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

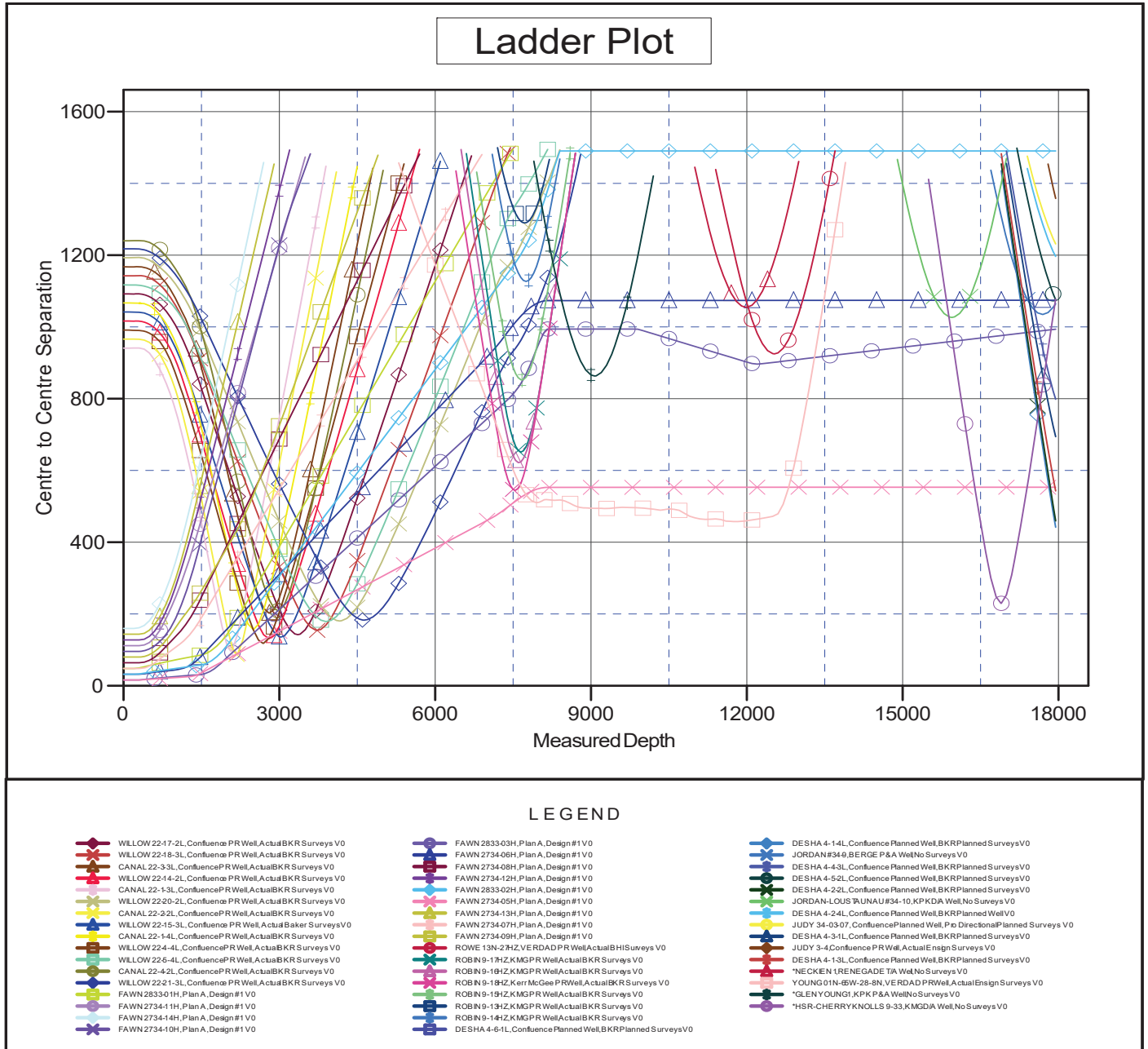
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: FAWN 2833-04H

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

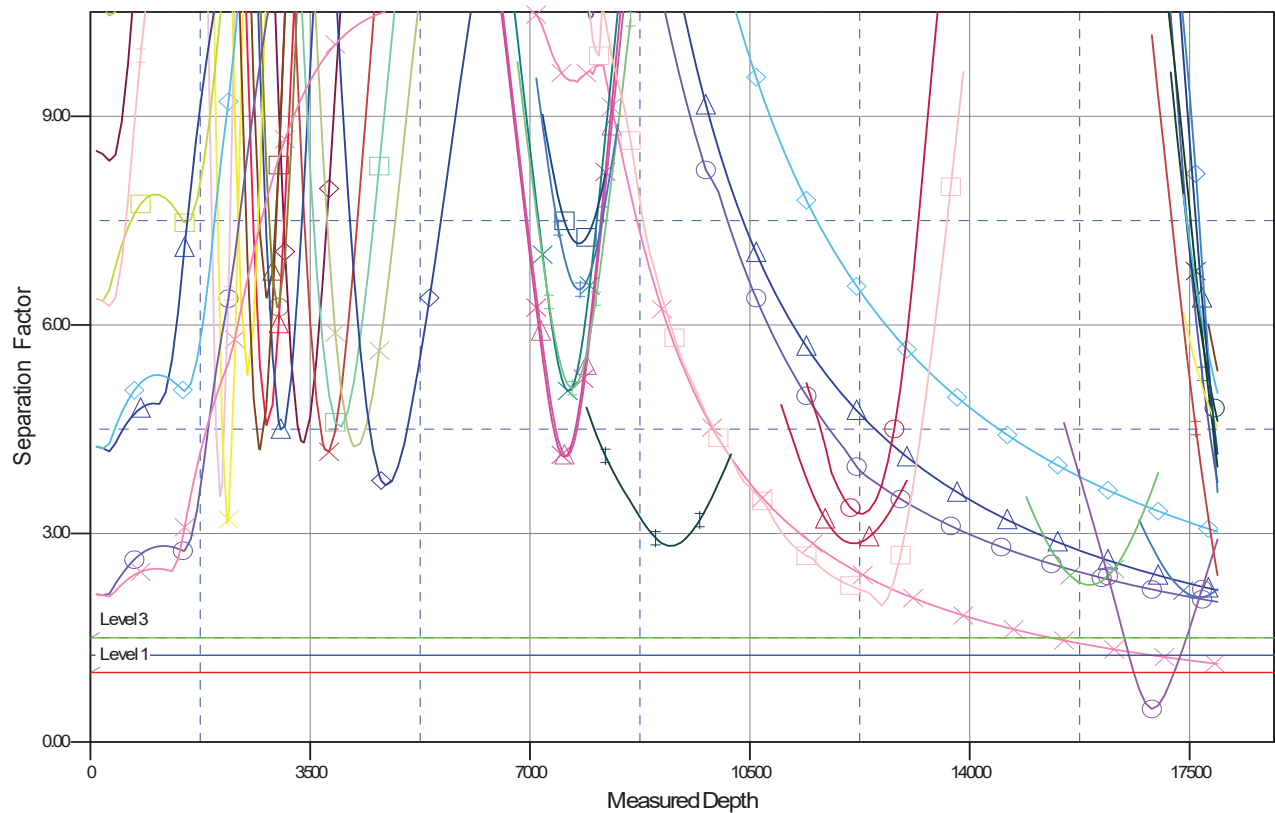
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Separation Factor Plot



LEGEND

WILLOW 22-17-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2833-03H, Plan A, Design #1 V0	DESHA 4-14L, Confluence Planned Well, BKR Planned Surveys V0
WILLOW 22-18-3L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-06H, Plan A, Design #1 V0	JORDAN #34-B, BE RGE P&A Well No Surveys V0
CANAL 22-33L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-08H, Plan A, Design #1 V0	DESHA 4-43L, Confluence Planned Well, BKR Planned Surveys V0
WILLOW 22-14-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-12H, Plan A, Design #1 V0	DESHA 4-52L, Confluence Planned Well, BKR Planned Surveys V0
CANAL 22-13L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2833-02H, Plan A, Design #1 V0	DESHA 4-22L, Confluence Planned Well, BKR Planned Surveys V0
WILLOW 22-20-2L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-05H, Plan A, Design #1 V0	JORDAN-LOUISIANA #34-10, KP KDA Well No Surveys V0
CANAL 22-22L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-13H, Plan A, Design #1 V0	DESHA 4-24L, Confluence Planned Well, BKR Planned Surveys V0
WILLOW 22-15-3L, Confluence PR Well, Actual Baker Surveys V0	FAWN 2734-07H, Plan A, Design #1 V0	JUDY 34-03-07, Confluence Planned Well, Pro Directional Planned Surveys V0
CANAL 22-14L, Confluence PR Well, Actual BKR Surveys V0	FAWN 2734-09H, Plan A, Design #1 V0	DESHA 4-31L, Confluence Planned Well, BKR Planned Surveys V0
WILLOW 22-4-4L, Confluence PR Well, Actual BKR Surveys V0	ROWE 13N-2HZ, VERDAD PR Well, Actual BHIS Surveys V0	JUDY 3-4, Confluence PR Well, Actual Ensign Surveys V0
WILLOW 22-6-4L, Confluence PR Well, Actual BKR Surveys V0	ROBIN 9-1HZ, KMGR PR Well, Actual BKR Surveys V0	DESHA 4-13L, Confluence Planned Well, BKR Planned Surveys V0
CANAL 22-42L, Confluence PR Well, Actual BKR Surveys V0	ROBIN 9-16HZ, KMGR PR Well, Actual BKR Surveys V0	*NECKEN TRENEGADE TA Well No Surveys V0
WILLOW 22-21-3L, Confluence PR Well, Actual BKR Surveys V0	ROBIN 9-19HZ, Kerr McGee PR Well, Actual BKR Surveys V0	YOUNG 01N-6W-28-8N, VERDAD PR Well, Actual Ensign Surveys V0
FAWN 2833-01H, Plan A, Design #1 V0	ROBIN 9-13HZ, KMGR PR Well, Actual BKR Surveys V0	*GLEN YOUNG I, KPK P&A Well No Surveys V0
FAWN 2734-11H, Plan A, Design #1 V0	ROBIN 9-14HZ, KMGR PR Well, Actual BKR Surveys V0	*HSR-CHERRY KNOLLS 9-33, KM GDA Well No Surveys V0
FAWN 2734-14H, Plan A, Design #1 V0	DESHA 4-6-1L, Confluence Planned Well, BKR Planned Surveys V0	
FAWN 2734-10H, Plan A, Design #1 V0		