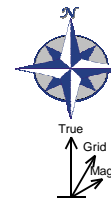
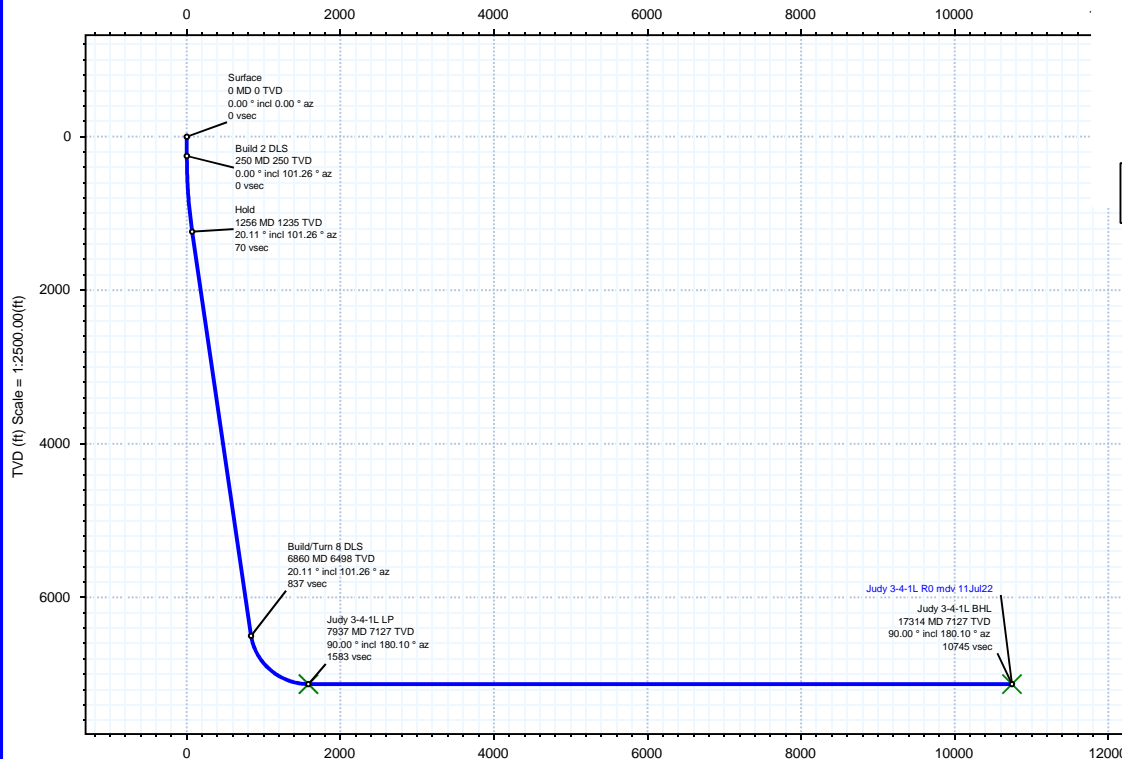


Borehole:	Well:	Field:	Structure:
Original Hole	Judy 3-4-1L	CO, Weld County (NAD 83 NZ) - 2019	Confluence 34-01N-65W (Judy 34 Pad)

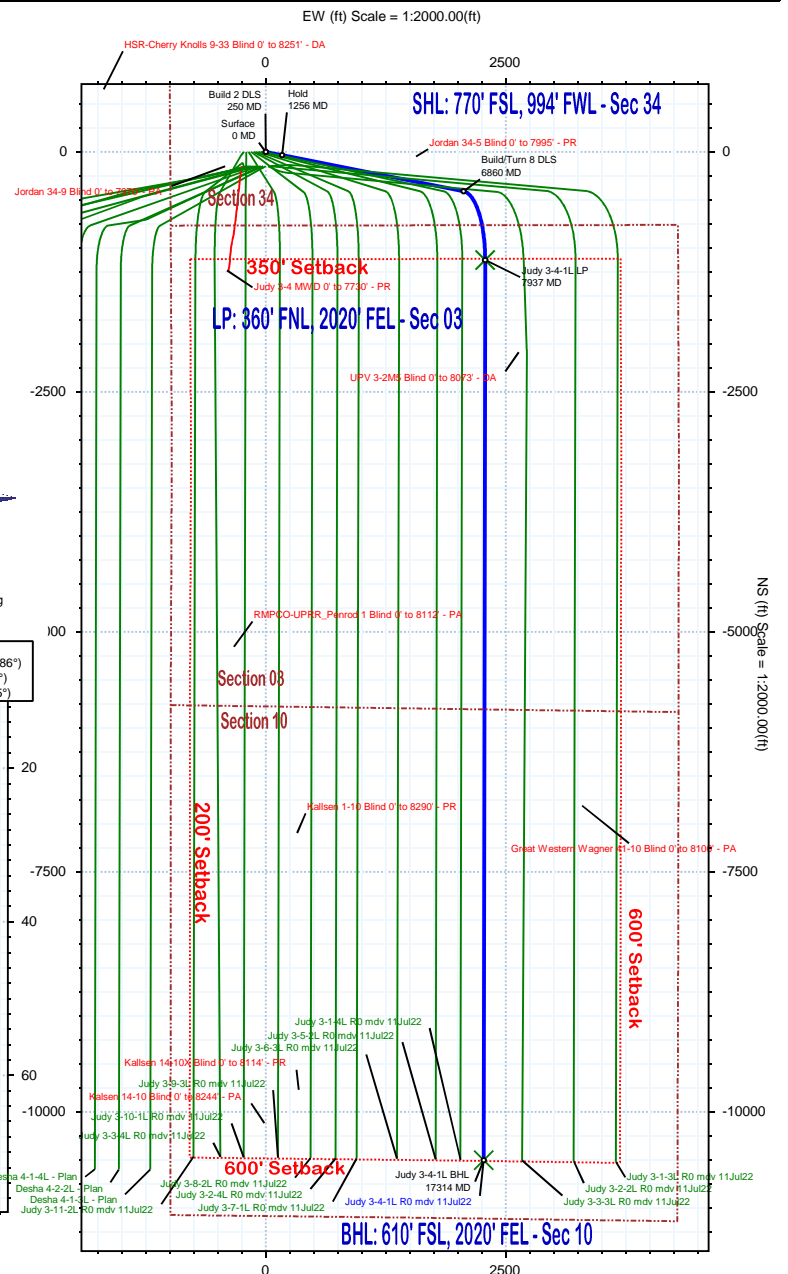
Gravity & Magnetic Parameters	Surface Location	NAD83 Colorado State Plane, Northern Zone, US Feet	Miscellaneous
Model: HDGM 2022 Dip: 66.21° Date: 11-Jul-2022	Lat: N 40 0 9.58 Northing: 1244941.00016206 Grid Conv: 0.5453°	Lon: W 104 39 21.60 Easting: 3236436.8379179 Scale Fact: 0.99996617	Slot: Judy 3-4-1L TVD Ref: KB = 23ft(5157ft above MSL)
MagDec: 7.886° FS: 51571.533nT Gravity FS: 998.981mgn (9.80665 Based)			Plan: Judy 3-4-1L R0 mdy 11Jul22

Target Description		Grid Coord		Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD
Judy 34 Pad Sec 03-10 - Setback	N 40 0 8.10	W 104 39 20.92	1244792.16	3236491.48	5157.00
Judy 34 Pad Sec 03-10 - CL	N 40 0 8.10	W 104 39 20.92	1244792.16	3236491.48	5157.00
Judy 34 Pad Sec 03-10	N 40 0 8.10	W 104 39 20.92	1244792.16	3236491.48	5157.00
Judy 3-4-1L BHL	N 39 58 25.79	W 104 38 52.44	1234461.18	3238806.80	7127.00
Judy 3-4-1L LP	N 39 59 58.45	W 104 38 52.22	1243837.31	3238733.51	7127.00

Critical Points		Grid Coord		Local Coord	
Critical Point	MD	INCL	AZIM	TVD	VSEC
Surface	0.00	0.00	0.00	0.00	0.00
Build 2 DLS	250.00	0.00	101.26	250.00	0.00
Hold	1255.59	20.11	101.26	1235.07	69.55
Build/Turn 8 DLS	6860.13	20.11	101.26	6497.86	836.81
Judy 3-4-1L LP	7937.41	90.00	180.10	7127.00	1583.16
Judy 3-4-1L BHL	17314.16	90.00	180.10	7127.00	10744.84



True North
Tot Corr (M->T 7.886°)
Mag Dec (7.886°)
Grid Conv (0.545°)



Judy 3-4-1L R0 mdv 11Jul22 Proposal Geodetic Report

(Def Plan)

Report Date: July 13, 2022 - 01:39 PM
Client: Confluence DJ
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Confluence 34-01N-65W (Judy 34 Pad) / Judy 3-4-1L
Well: Judy 3-4-1L
Borehole: Original Hole
UWI / API#: 05-123-45930
Survey Name: Judy 3-4-1L R0 mdv 11Jul22
Survey Date: July 11, 2022
Tort / AHD / DDI / ERD Ratio: 106.294 ° / 12261.828 ft / 6.501 / 1.720
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 0' 9.57600", W 104° 39' 21.60000"
Location Grid N/E Y/X: N 1244941.000 ftUS, E 3236436.838 ftUS
CRS Grid Convergence Angle: 0.5453 °
Grid Scale Factor: 0.99996617
Version / Patch: 2.10.829.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 167.802 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB = 23ft
TVD Reference Elevation: 5157.000 ft above MSL
Seabed / Ground Elevation: 5134.000 ft above MSL
Magnetic Declination: 7.886 °
Total Gravity Field Strength: 998.9810mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51571.533 nT
Magnetic Dip Angle: 66.210 °
Declination Date: July 11, 2022
Magnetic Declination Model: HDGM 2022
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 7.8857 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Build 2 DLS	Surface	0.00	0.00	0.00	0.00	-5157.00	0.00	0.00	N/A	1244941.00	3236436.84	40.002660	-104.656000
	100.00	0.00	101.26	100.00	-5057.00	0.00	0.00	0.00	0.00	1244941.00	3236436.84	40.002660	-104.656000
	200.00	0.00	101.26	200.00	-4957.00	0.00	0.00	0.00	0.00	1244941.00	3236436.84	40.002660	-104.656000
	250.00	0.00	101.26	250.00	-4907.00	0.00	0.00	0.00	0.00	1244941.00	3236436.84	40.002660	-104.656000
	300.00	1.00	101.26	300.00	-4857.00	0.17	-0.09	0.43	2.00	1244940.92	3236437.27	40.002660	-104.655998
	400.00	3.00	101.26	399.93	-4757.07	1.56	-0.77	3.85	2.00	1244940.27	3236440.70	40.002658	-104.655986
	500.00	5.00	101.26	499.68	-4657.32	4.34	-2.13	10.69	2.00	1244938.97	3236447.55	40.002654	-104.655962
	600.00	7.00	101.26	599.13	-4557.87	8.50	-4.17	20.94	2.00	1244937.03	3236457.82	40.002649	-104.655925
	700.00	9.00	101.26	698.15	-4458.85	14.04	-6.89	34.59	2.00	1244934.44	3236471.49	40.002641	-104.655877
	800.00	11.00	101.26	796.63	-4360.37	20.96	-10.28	51.62	2.00	1244931.21	3236488.55	40.002632	-104.655816
	900.00	13.00	101.26	894.44	-4262.56	29.23	-14.34	72.01	2.00	1244927.34	3236508.98	40.002621	-104.655743
	1000.00	15.00	101.26	991.46	-4165.54	38.86	-19.07	95.74	2.00	1244922.85	3236532.75	40.002608	-104.655658
	1100.00	17.00	101.26	1087.58	-4069.42	49.84	-24.45	122.77	2.00	1244917.72	3236559.83	40.002593	-104.655562
	1200.00	19.00	101.26	1182.68	-3974.32	62.14	-30.49	153.07	2.00	1244911.97	3236590.19	40.002576	-104.655454
	Hold	1255.59	20.11	101.26	1235.07	-3921.93	69.55	-34.12	171.32	2.00	1244908.51	3236608.47	40.002566
1300.00		20.11	101.26	1301.23	-3876.23	72.70	-37.10	186.30	0.00	1244899.28	3236623.47	40.002549	-104.655287
1400.00		20.11	101.26	1370.67	-3786.33	89.32	-43.82	220.02	0.00	1244899.28	3236657.26	40.002540	-104.655215
1500.00		20.11	101.26	1464.57	-3692.43	103.01	-50.54	253.74	0.00	1244892.88	3236691.04	40.002521	-104.655094
1600.00		20.11	101.26	1558.48	-3598.52	116.70	-57.25	287.47	0.00	1244886.49	3236724.83	40.002503	-104.654974
1700.00		20.11	101.26	1652.38	-3504.62	130.39	-63.97	321.19	0.00	1244880.09	3236758.61	40.002484	-104.654854
1800.00		20.11	101.26	1746.28	-3410.72	144.08	-70.69	354.91	0.00	1244873.70	3236792.39	40.002466	-104.654733
1900.00		20.11	101.26	1840.18	-3316.82	157.77	-77.40	388.64	0.00	1244867.30	3236826.18	40.002448	-104.654613
2000.00		20.11	101.26	1934.08	-3222.92	171.46	-84.12	422.36	0.00	1244860.91	3236859.96	40.002429	-104.654492
2100.00		20.11	101.26	2027.99	-3129.01	185.15	-90.84	456.08	0.00	1244854.51	3236893.75	40.002411	-104.654372
2200.00		20.11	101.26	2121.89	-3035.11	198.84	-97.55	489.80	0.00	1244848.12	3236927.53	40.002392	-104.654252
2300.00		20.11	101.26	2215.79	-2941.21	212.53	-104.27	523.53	0.00	1244841.72	3236961.32	40.002374	-104.654131
2400.00		20.11	101.26	2309.69	-2847.31	226.22	-110.99	557.25	0.00	1244835.33	3236995.10	40.002355	-104.654011
2500.00		20.11	101.26	2403.60	-2753.40	239.91	-117.70	590.97	0.00	1244828.93	3237028.88	40.002337	-104.653891
2600.00		20.11	101.26	2497.50	-2659.50	253.60	-124.42	624.70	0.00	1244822.54	3237062.67	40.002318	-104.653770
2700.00		20.11	101.26	2591.40	-2565.60	267.29	-131.13	658.42	0.00	1244816.14	3237096.45	40.002300	-104.653650
2800.00		20.11	101.26	2685.30	-2471.70	280.98	-137.85	692.14	0.00	1244809.75	3237130.24	40.002282	-104.653529
2900.00		20.11	101.26	2779.21	-2377.79	294.67	-144.57	725.87	0.00	1244803.35	3237164.02	40.002263	-104.653409
3000.00		20.11	101.26	2873.11	-2283.89	308.36	-151.28	759.59	0.00	1244796.96	3237197.81	40.002245	-104.653289
3100.00		20.11	101.26	2967.01	-2189.99	322.05	-158.00	793.31	0.00	1244790.56	3237231.59	40.002226	-104.653168
3200.00		20.11	101.26	3060.91	-2096.09	335.74	-164.72	827.04	0.00	1244784.17	3237265.37	40.002208	-104.653048
3300.00		20.11	101.26	3154.81	-2002.19	349.43	-171.43	860.76	0.00	1244777.77	3237299.16	40.002189	-104.652928
3400.00		20.11	101.26	3248.72	-1908.28	363.12	-178.15	894.48	0.00	1244771.38	3237332.94	40.002171	-104.652807
3500.00		20.11	101.26	3342.62	-1814.38	376.81	-184.87	928.21	0.00	1244764.98	3237366.73	40.002152	-104.652687
3600.00		20.11	101.26	3436.52	-1720.48	390.50	-191.58	961.93	0.00	1244758.59	3237400.51	40.002134	-104.652566
3700.00		20.11	101.26	3530.42	-1626.58	404.19	-198.30	995.65	0.00	1244752.19	3237434.30	40.002116	-104.652446
3800.00		20.11	101.26	3624.33	-1532.67	417.88	-205.02	1029.37	0.00	1244745.80	3237468.08	40.002097	-104.652326
3900.00		20.11	101.26	3718.23	-1438.77	431.57	-211.73	1063.10	0.00	1244739.40	3237501.86	40.002079	-104.652205
4000.00		20.11	101.26	3812.13	-1344.87	445.26	-218.45	1096.82	0.00	1244733.01	3237535.65	40.002060	-104.652085
4100.00		20.11	101.26	3906.03	-1250.97	458.95	-225.17	1130.54	0.00	1244726.61	3237569.43	40.002042	-104.651965
4200.00		20.11	101.26	3999.93	-1157.07	472.64	-231.88	1164.27	0.00	1244720.22	3237603.22	40.002023	-104.651844
4300.00		20.11	101.26	4093.84	-1063.16	486.33	-238.60	1197.99	0.00	1244713.82	3237637.00	40.002005	-104.651724
4400.00		20.11	101.26	4187.74	-969.26	500.02	-245.32	1231.71	0.00	1244707.43	3237670.79	40.001987	-104.651603
4500.00		20.11	101.26	4281.64	-875.36	513.71	-252.03	1265.44	0.00	1244701.03	3237704.57	40.001968	-104.651483
4600.00		20.11	101.26	4375.54	-781.46	527.40	-258.75	1299.16	0.00	1244694.64	3237738.35	40.001950	-104.651363
4700.00		20.11	101.26	4469.45	-687.55	541.09	-265.47	1332.88	0.00	1244688.24	3237772.14	40.001931	-104.651242
4800.00		20.11	101.26	4563.35	-593.65	554.78	-272.18	1366.61	0.00	1244681.85	3237805.92	40.001913	-104.651122
4900.00		20.11	101.26	4657.25	-499.75	568.47	-278.90	1400.33	0.00	1244675.45	3237839.71	40.001894	-104.651002
5000.00		20.11	101.26	4751.15	-405.85	582.16	-285.61	1434.05	0.00	1244669.06	3237873.49	40.001876	-104.650881
5100.00		20.11	101.26	4845.06	-311.94	595.85	-292.33	1467.78	0.00	1244662.66	3237907.28	40.001857	-104.650761
5200.00		20.11	101.26	4938.96	-218.04	609.54	-299.05	1501.50	0.00	1244656.27	3237941.06	40.001839	-104.650640
5300.00		20.11	101.26	5032.86	-124.14	623.23	-305.76	1535.22	0.00	1244649.87	3237974.84	40.001821	-104.650520
5400.00		20.11	101.26	5126.76	30.24	636.92	-312.48	1568.94	0.00	1244643.48	3238008.63	40.001802	-104.650400
5500.00		20.11	101.26	5220.66	136.66	650.61	-319.20	1602.67	0.00	1244637.08	3238042.41	40.001784	-104.650279
5600.00		20.11	101.26	5314.57	157.57	664.30	-325.91	1636.39	0.00	1244630.69	3238076.20	40.001765	-104.650159
5700.00	20.11	101.26	5408.47	251.47	677.99	-332.63	1670.11	0.00	1244624.29	3238109.98	40.001747	-104.650039	
5800.00	20.11	101.26	5502.37	345.37	691.68	-339.35	1703.84	0.00	1244617.90	3238143.77	40.001728	-104.649918	
5900.00	20.11	101.26	5596.27	439.27	705.37	-346.06	1737.56	0.00	1244611.50	3238177.55	40.001710	-104.649798	
6000.00	20.11	101.26	5690.18	533.18	719.06	-352.78	1771.28	0.00	1244605.11	3238211.33	40.001691	-104.649678	
6100.00	20.11	101.26	5784.08	627.08	732.75	-359.50	1805.01	0.00	1244598.71	3238245.12	40.001673	-104.649557	
6200.00	20.11	101.26	5877.98	720.98	746.44	-366.21	1838.73	0.00	1244592.32	3238278.90	40.001655	-104.649437	
6300.00	20.11	101.26	5971.88	814.88	760.13	-372.93	1872.45	0.00	1244585.92	3238312.69	40.001636	-104.649316	
6400.00	20.11	101.26	6065.79	908.79	773.82	-379.65	1906.18	0.00	1244579.53	3238346.47	40.001618	-104.649196	
6500.00	20.11	101.26	6159.69	1002.69	787.51	-386.36	1939.90	0.00	1244573.13	3238380.26	40.001599	-104.649076	
6600.00	20.11	101.26	6253.59	1096.59	801.20	-393.08	1973.62	0.00	1244566.74	3238414.04	40.001581	-104.648955	
6700.00	20.11	101.26	6347.49	1190.49	814.89	-399.80	2007.34	0.00	1244560.34	3238447.83	40.001562	-104.648835	
6800.00	20.11	101.26	6441.39	1284.39	828.58	-406.51	2041.07	0.00	1244553.95	3238481.61	40.001544	-104.648715	
Build/Turn 8 DLS	6860.13	20.11	101.26	6497.86	1340.86	836.81	-410.55	2061.35	0.00	1244550.10	3238501.93	40.001533	

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	8100.00	90.00	180.10	7127.00	1970.00	1742.02	-1288.13	2285.87	0.00	1243674.73	3238734.79	39.999124	-104.647841
	8200.00	90.00	180.10	7127.00	1970.00	1839.73	-1388.13	2285.70	0.00	1243574.73	3238735.57	39.998849	-104.647842
	8300.00	90.00	180.10	7127.00	1970.00	1937.43	-1488.13	2285.53	0.00	1243474.74	3238736.35	39.998575	-104.647842
	8400.00	90.00	180.10	7127.00	1970.00	2035.14	-1588.13	2285.36	0.00	1243374.75	3238737.13	39.998300	-104.647843
	8500.00	90.00	180.10	7127.00	1970.00	2132.85	-1688.13	2285.19	0.00	1243274.75	3238737.91	39.998026	-104.647844
	8600.00	90.00	180.10	7127.00	1970.00	2230.55	-1788.13	2285.02	0.00	1243174.76	3238738.69	39.997751	-104.647844
	8700.00	90.00	180.10	7127.00	1970.00	2328.26	-1888.13	2284.85	0.00	1243074.77	3238739.47	39.997477	-104.647845
	8800.00	90.00	180.10	7127.00	1970.00	2425.96	-1988.13	2284.68	0.00	1242974.77	3238740.26	39.997202	-104.647846
	8900.00	90.00	180.10	7127.00	1970.00	2523.67	-2088.13	2284.51	0.00	1242874.78	3238741.04	39.996928	-104.647846
	9000.00	90.00	180.10	7127.00	1970.00	2621.38	-2188.13	2284.34	0.00	1242774.79	3238741.82	39.996653	-104.647847
	9100.00	90.00	180.10	7127.00	1970.00	2719.08	-2288.13	2284.17	0.00	1242674.79	3238742.60	39.996379	-104.647847
	9200.00	90.00	180.10	7127.00	1970.00	2816.79	-2388.13	2284.00	0.00	1242574.80	3238743.38	39.996104	-104.647848
	9300.00	90.00	180.10	7127.00	1970.00	2914.50	-2488.13	2283.83	0.00	1242474.81	3238744.16	39.995830	-104.647849
	9400.00	90.00	180.10	7127.00	1970.00	3012.20	-2588.13	2283.66	0.00	1242374.81	3238744.95	39.995555	-104.647849
	9500.00	90.00	180.10	7127.00	1970.00	3109.91	-2688.13	2283.49	0.00	1242274.82	3238745.73	39.995281	-104.647850
	9600.00	90.00	180.10	7127.00	1970.00	3207.62	-2788.13	2283.32	0.00	1242174.83	3238746.51	39.995006	-104.647851
	9700.00	90.00	180.10	7127.00	1970.00	3305.32	-2888.13	2283.15	0.00	1242074.83	3238747.29	39.994732	-104.647851
	9800.00	90.00	180.10	7127.00	1970.00	3403.03	-2988.13	2282.98	0.00	1241974.84	3238748.07	39.994457	-104.647852
	9900.00	90.00	180.10	7127.00	1970.00	3500.74	-3088.13	2282.81	0.00	1241874.85	3238748.85	39.994183	-104.647853
	10000.00	90.00	180.10	7127.00	1970.00	3598.44	-3188.13	2282.64	0.00	1241774.85	3238749.64	39.993908	-104.647853
	10100.00	90.00	180.10	7127.00	1970.00	3696.15	-3288.13	2282.47	0.00	1241674.86	3238750.42	39.993633	-104.647854
	10200.00	90.00	180.10	7127.00	1970.00	3793.85	-3388.13	2282.30	0.00	1241574.87	3238751.20	39.993359	-104.647854
	10300.00	90.00	180.10	7127.00	1970.00	3891.56	-3488.13	2282.13	0.00	1241474.87	3238751.98	39.993084	-104.647855
	10400.00	90.00	180.10	7127.00	1970.00	3989.27	-3588.13	2281.96	0.00	1241374.88	3238752.76	39.992810	-104.647856
	10500.00	90.00	180.10	7127.00	1970.00	4086.97	-3688.13	2281.79	0.00	1241274.89	3238753.54	39.992535	-104.647856
	10600.00	90.00	180.10	7127.00	1970.00	4184.68	-3788.13	2281.62	0.00	1241174.89	3238754.33	39.992261	-104.647857
	10700.00	90.00	180.10	7127.00	1970.00	4282.39	-3888.13	2281.45	0.00	1241074.90	3238755.11	39.991986	-104.647858
	10800.00	90.00	180.10	7127.00	1970.00	4380.09	-3988.13	2281.28	0.00	1240974.91	3238755.89	39.991712	-104.647858
	10900.00	90.00	180.10	7127.00	1970.00	4477.80	-4088.13	2281.11	0.00	1240874.91	3238756.67	39.991437	-104.647859
	11000.00	90.00	180.10	7127.00	1970.00	4575.51	-4188.13	2280.94	0.00	1240774.92	3238757.45	39.991163	-104.647860
	11100.00	90.00	180.10	7127.00	1970.00	4673.21	-4288.13	2280.77	0.00	1240674.93	3238758.23	39.990888	-104.647860
	11200.00	90.00	180.10	7127.00	1970.00	4770.92	-4388.13	2280.60	0.00	1240574.93	3238759.02	39.990614	-104.647861
	11300.00	90.00	180.10	7127.00	1970.00	4868.63	-4488.13	2280.43	0.00	1240474.94	3238759.80	39.990339	-104.647862
	11400.00	90.00	180.10	7127.00	1970.00	4966.33	-4588.13	2280.26	0.00	1240374.94	3238760.58	39.990065	-104.647862
	11500.00	90.00	180.10	7127.00	1970.00	5064.04	-4688.13	2280.09	0.00	1240274.95	3238761.36	39.989790	-104.647863
	11600.00	90.00	180.10	7127.00	1970.00	5161.74	-4788.13	2279.92	0.00	1240174.96	3238762.14	39.989516	-104.647863
	11700.00	90.00	180.10	7127.00	1970.00	5259.45	-4888.13	2279.75	0.00	1240074.96	3238762.92	39.989241	-104.647864
	11800.00	90.00	180.10	7127.00	1970.00	5357.16	-4988.13	2279.58	0.00	1239974.97	3238763.71	39.988967	-104.647865
	11900.00	90.00	180.10	7127.00	1970.00	5454.86	-5088.13	2279.41	0.00	1239874.98	3238764.49	39.988692	-104.647865
	12000.00	90.00	180.10	7127.00	1970.00	5552.57	-5188.13	2279.24	0.00	1239774.98	3238765.27	39.988418	-104.647866
	12100.00	90.00	180.10	7127.00	1970.00	5650.28	-5288.13	2279.07	0.00	1239674.99	3238766.05	39.988143	-104.647867
	12200.00	90.00	180.10	7127.00	1970.00	5747.98	-5388.13	2278.90	0.00	1239575.00	3238766.83	39.987869	-104.647867
	12300.00	90.00	180.10	7127.00	1970.00	5845.69	-5488.13	2278.73	0.00	1239475.00	3238767.61	39.987594	-104.647868
	12400.00	90.00	180.10	7127.00	1970.00	5943.40	-5588.13	2278.56	0.00	1239375.01	3238768.39	39.987320	-104.647869
	12500.00	90.00	180.10	7127.00	1970.00	6041.10	-5688.13	2278.39	0.00	1239275.02	3238769.18	39.987045	-104.647869
	12600.00	90.00	180.10	7127.00	1970.00	6138.81	-5788.13	2278.22	0.00	1239175.02	3238769.96	39.986771	-104.647870
	12700.00	90.00	180.10	7127.00	1970.00	6236.51	-5888.13	2278.05	0.00	1239075.03	3238770.74	39.986496	-104.647870
	12800.00	90.00	180.10	7127.00	1970.00	6334.22	-5988.13	2277.88	0.00	1238975.04	3238771.52	39.986222	-104.647871
	12900.00	90.00	180.10	7127.00	1970.00	6431.93	-6088.13	2277.71	0.00	1238875.04	3238772.30	39.985947	-104.647872
	13000.00	90.00	180.10	7127.00	1970.00	6529.63	-6188.13	2277.54	0.00	1238775.05	3238773.08	39.985673	-104.647872
	13100.00	90.00	180.10	7127.00	1970.00	6627.34	-6288.13	2277.37	0.00	1238675.06	3238773.87	39.985398	-104.647873
	13200.00	90.00	180.10	7127.00	1970.00	6725.05	-6388.13	2277.20	0.00	1238575.06	3238774.65	39.985124	-104.647874
	13300.00	90.00	180.10	7127.00	1970.00	6822.75	-6488.13	2277.03	0.00	1238475.07	3238775.43	39.984849	-104.647874
	13400.00	90.00	180.10	7127.00	1970.00	6920.46	-6588.13	2276.86	0.00	1238375.08	3238776.21	39.984575	-104.647875
	13500.00	90.00	180.10	7127.00	1970.00	7018.17	-6688.13	2276.69	0.00	1238275.08	3238776.99	39.984300	-104.647876
	13600.00	90.00	180.10	7127.00	1970.00	7115.87	-6788.13	2276.52	0.00	1238175.09	3238777.77	39.984026	-104.647876
	13700.00	90.00	180.10	7127.00	1970.00	7213.58	-6888.13	2276.35	0.00	1238075.10	3238778.56	39.983751	-104.647877
	13800.00	90.00	180.10	7127.00	1970.00	7311.29	-6988.13	2276.18	0.00	1237975.10	3238779.34	39.983477	-104.647878
	13900.00	90.00	180.10	7127.00	1970.00	7408.99	-7088.13	2276.00	0.00	1237875.11	3238780.12	39.983202	-104.647878
	14000.00	90.00	180.10	7127.00	1970.00	7506.70	-7188.13	2275.83	0.00	1237775.12	3238780.90	39.982928	-104.647879
	14100.00	90.00	180.10	7127.00	1970.00	7604.40	-7288.13	2275.66	0.00	1237675.12	3238781.68	39.982653	-104.647879
	14200.00	90.00	180.10	7127.00	1970.00	7702.11	-7388.13	2275.49	0.00	1237575.13	3238782.46	39.982379	-104.647880
	14300.00	90.00	180.10	7127.00	1970.00	7799.82	-7488.13	2275.32	0.00	1237475.14	3238783.25	39.982104	-104.647881
	14400.00	90.00	180.10	7127.00	1970.00	7897.52	-7588.13	2275.15	0.00	1237375.14	3238784.03	39.981830	-104.647881
	14500.00	90.00	180.10	7127.00	1970.00	7995.23	-7688.13	2274.98	0.00	1237275.15	3238784.81	39.981555	-104.647882
	14600.00	90.00	180.10	7127.00	1970.00	8092.94	-7788.13	2274.81	0.00	1237175.16	3238785.59	39.981281	-104.647883
	14700.00	90.00	180.10	7127.00	1970.00	8190.64	-7888.12	2274.64	0.00	1237075.16	3238786.37	39.981006	-104.647883
	14800.00	90.00	180.10	7127.00	1970.00	8288.35	-7988.12	2274.47	0.00	1236975.17	3238787.15	39.980732	-104.647884
	14900.00	90.00	180.10	7127.00	1970.00	8386.06	-8088.12	2274.30	0.00	1236875.18	3238787.94	39.980457	-104.647885
	15000.00	90.00	180.10	7127.00	1970.00	8483.76	-8188.12	2274.13	0.00	1236775.18	3238788.72	39.980183	-104.647885
	15100.00	90.00	180.10	7127.00	1970.00	8581.47	-8288.12	2273.96	0.00	1236675.19	3238789.50	39.979908	-104.647886
	15200.00	90.00	180.10	7127.00	1970.00	8679.18	-8388						

Judy 3-4-1L R0 mdv 11Jul22 Anti-Collision Summary Report

Analysis Date-24hr Time: July 13, 2022 - 13:40
Client: Confluence DJ
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure: Confluence 34-01N-65W (Judy 34 Pad)
Slot: Judy 3-4-1L
Well: Judy 3-4-1L
Borehole: Original Hole
Scan MD Range: 0.00ft ~ 17314.16ft

Analysis Method: 3D Least Distance
Reference Trajectory: Judy 3-4-1L R0 mdv 11Jul22 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: All local minima indicated.
Version / Patch: 2.10.829.1
Database \ Project: us1455vsm3175\drilling-CO, Weld County 2.10_RESTORE

Trajectory Error Model: ISCWSA3 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Offset Selection Criteria

Wellhead distance scan: Not performed!
 Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
 - All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectories Summary

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Judy 3-1-4L R0 mdv 11Jul22 (Def Plan)													Fail Minor
25.21	20.36	24.23	4.85	N/A		MAS = 6.21 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
25.21	20.36	24.23	4.85	N/A		MAS = 6.21 (m)	23.00	23.00				WRP	
25.21	20.36	22.34	4.85	12.83		MAS = 6.21 (m)	250.00	250.00				MinPts	
25.37	20.36	22.20	5.00	11.16		MAS = 6.21 (m)	280.00	280.00				MINPT-O-EOU	
41.37	20.36	28.48	21.00	3.39		MAS = 6.21 (m)	1230.00	1211.00				MinPt-O-SF	
103.16	31.67	81.72	71.49	4.99		OSF1.50	2550.00	2450.55	OSF>5.00			Exit Alert	
221.45	67.13	176.36	154.31	5.00		OSF1.50	5070.00	4816.88	OSF<5.00			Enter Alert	
306.43	97.93	240.82	208.51	4.73		OSF1.50	6880.00	6516.50				MinPt-O-SF	
340.53	102.98	271.55	237.55	4.99		OSF1.50	7240.00	6831.91	OSF>5.00			Exit Alert	
440.99	133.05	351.96	307.94	5.00		OSF1.50	8740.00	7127.00	OSF<5.00			Enter Alert	
442.22	442.47	146.91	-0.25	1.50		OSF1.50	16090.00	7127.00		OSF<1.50		Enter Minor	
442.43	496.62	111.02	-54.20	1.34		OSF1.50	17310.00	7127.00				MinPts	
442.44	496.19	111.32	-53.75	1.34		OSF1.50	17314.16	7127.00				TD	

Judy 3-5-2L R0 mdv 11Jul22 (Def Plan)													Fail Minor
50.43	32.81	49.44	17.62	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
50.43	32.81	49.44	17.62	N/A		MAS = 10.00 (m)	23.00	23.00				WRP	
50.43	32.81	47.55	17.62	26.17		MAS = 10.00 (m)	250.00	250.00				MinPts	
50.58	32.81	47.41	17.77	22.69		MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
113.45	32.81	95.32	80.64	6.56		MAS = 10.00 (m)	1680.00	1633.60				MinPt-O-SF	
521.36	157.35	416.13	364.01	4.99		OSF1.50	8610.00	7127.00	OSF<5.00			Enter Alert	
521.49	522.00	173.16	-0.51	1.50		OSF1.50	14880.00	7127.00		OSF<1.50		Enter Minor	
521.54	671.88	73.25	-150.34	1.16		OSF1.50	17310.00	7127.00				MinPts	
521.58	671.16	73.81	-149.58	1.17		OSF1.50	17314.16	7127.00				TD	

Judy 3-3-3L R0 mdv 11Jul22 (Def Plan)													Fail Minor
151.47	32.81	150.49	118.66	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
151.47	32.81	150.49	118.66	N/A		MAS = 10.00 (m)	23.00	23.00				WRP	
151.47	32.81	148.60	118.66	79.66		MAS = 10.00 (m)	250.00	250.00				MinPts	
152.18	32.81	147.88	119.38	45.48		MAS = 10.00 (m)	400.00	399.93				MINPT-O-EOU	
148.06	45.25	117.57	102.81	4.98		OSF1.50	2640.00	2535.06	OSF<5.00			Enter Alert	
143.99	53.24	108.17	90.75	4.11		OSF1.50	3290.00	3145.42				MinPt-CtCt	
144.82	55.99	107.16	88.83	3.92		OSF1.50	3580.00	3417.74				MINPT-O-EOU	
145.72	57.09	107.34	88.63	3.87		OSF1.50	3710.00	3539.81				MinPt-O-ADP	
159.30	63.92	116.36	95.39	3.77		OSF1.50	4570.00	4347.37				MinPt-O-SF	
162.14	65.05	118.44	97.08	3.77		OSF1.50	4690.00	4460.06				MinPt-O-SF	
290.97	139.40	197.71	151.57	3.14		OSF1.50	7290.00	6869.87				MinPt-O-SF	
436.42	132.34	347.86	304.08	4.97		OSF1.50	7790.00	7112.77	OSF>5.00			Exit Alert	
485.16	140.57	391.11	344.59	5.20		OSF1.50	8850.00	7127.00				MinPts	
486.09	146.83	387.87	339.25	4.99		OSF1.50	9070.00	7127.00	OSF<5.00			Enter Alert	
464.82	465.03	154.47	-0.21	1.50		OSF1.50	14840.00	7127.00		OSF<1.50		Enter Minor	
455.78	607.25	50.62	-151.47	1.13		OSF1.50	17314.16	7127.00				MinPts	

Jordan 34-5 Blind 0' to 7995' - PR (Def Survey)													Fail Minor
1568.25	32.81	1566.44	1535.44	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
1567.96	32.81	1566.11	1535.15	47848.42		MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
1567.93	32.81	1566.09	1535.13	54088.00		MAS = 10.00 (m)	23.00	23.00				WRP	
656.69	198.27	523.98	458.42	5.00		OSF1.50	3490.00	3333.23	OSF<5.00			Enter Alert	
283.73	285.39	92.93	-1.66	1.49		OSF1.50	4910.00	4666.64		OSF<1.50		Enter Minor	
259.37	306.48	54.51	-47.11	1.27		OSF1.50	5240.00	4976.52				MinPt-CtCt	
261.02	311.74	52.66	-50.72	1.25		OSF1.50	5330.00	5061.03				MINPT-O-EOU	
261.89	312.88	52.76	-50.89	1.25		OSF1.50	5350.00	5079.81				MinPt-O-SF	
262.93	314.00	53.06	-51.07	1.25		OSF1.50	5370.00	5098.59				MinPt-O-ADP	
339.14	340.22	111.79	-1.08	1.50		OSF1.50	5880.00	5677.49	OSF>1.50			Exit Minor	
1433.62	433.59	1144.02	1000.03	4.97		OSF1.50	8100.00	7127.00	OSF>5.00			Exit Alert	
10478.22	438.95	10185.05	10039.26	35.93		OSF1.50	17314.16	7127.00				TD	

UPV 3-2M5 Blind 0' to 8073' - DA (Def Survey)													Fail Minor
3361.77	32.81	3359.71	3328.96	13529.23		MAS = 10.00 (m)	0.00	0.00				Surface	
3361.77	32.81	3359.19	3328.96	4377.10		MAS = 10.00 (m)	23.00	23.00				WRP	
1435.81	433.16	1146.50	1002.64	4.98		OSF1.50	7490.00	6999.70	OSF<5.00			Enter Alert	
429.91	432.15	141.28	-2.24	1.49		OSF1.50	8650.00	7127.00		OSF<1.50		Enter Minor	
350.83	440.80	56.42	-89.98	1.19		OSF1.50	8900.00	7127.00				MinPt-CtCt	
351.01	441.46	56.17	-90.44	1.19		OSF1.50	8910.00	7127.00				MINPT-O-EOU	
351.48	442.11	56.21	-90.63	1.19		OSF1.50	8920.00	7127.00				MinPts	
449.80	454.15	146.50	-4.35	1.49		OSF1.50	9180.00	7127.00		OSF>1.50		Exit Minor	
1503.02	452.15	1201.06	1050.88	5.00		OSF1.50	10360.00	7127.00	OSF>5.00			Exit Alert	
8422.97	450.78	8121.91	7972.19	28.12		OSF1.50	17314.16	7127.00				TD	

Judy 3-6-3L R0 mdv 11Jul22 (Def Plan)													Warning Alert
75.64	32.81	74.66	42.83	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
75.64	32.81	74.66	42.83	N/A		MAS = 10.00 (m)	23.00	23.00				WRP	

...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-4-1L\Original Hole\Judy 3-4-1L R0 mdv 11Jul22

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
	75.64	32.81	72.77	42.83	39.52	MAS = 10.00 (m)	250.00	250.00	OSF<5.00			MinPts		
	75.80	32.81	72.63	42.99	34.23	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	128.45	32.81	115.48	95.64	10.64	MAS = 10.00 (m)	1230.00	1211.00				MinPt-O-SF		
	929.65	279.72	742.84	649.93	5.00	OSF1.50	10880.00	7127.00				Enter Alert		
	933.61	674.66	483.45	258.92	2.08	OSF1.50	17300.00	7127.00				MinPts		
	933.70	673.89	484.11	259.80	2.08	OSF1.50	17314.16	7127.00				TD		
Judy 3-7-1L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
	100.85	32.81	99.87	68.05	N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	100.85	32.81	99.87	68.05	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	100.85	32.81	97.98	68.05	52.87	MAS = 10.00 (m)	250.00	250.00				MinPts		
	101.01	32.81	97.84	68.20	45.76	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	174.06	32.81	161.31	141.26	14.71	MAS = 10.00 (m)	1210.00	1192.13				MinPt-O-SF		
	1320.03	397.06	1054.99	922.97	5.00	OSF1.50	12790.00	7127.00				Enter Alert		
	1322.98	684.49	866.33	638.50	2.90	OSF1.50	17300.00	7127.00				MinPts		
	1323.08	683.97	866.77	639.11	2.90	OSF1.50	17314.16	7127.00				TD		
Judy 3-1-3L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
	158.56	32.81	157.58	125.75	N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	158.56	32.81	157.58	125.75	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	108.37	32.81	90.82	75.57	6.48	MAS = 10.00 (m)	1490.00	1455.18				MinPts		
	108.63	32.81	90.59	75.82	6.31	MAS = 10.00 (m)	1530.00	1492.74				MINPT-O-EOU		
	113.43	32.81	93.96	80.62	6.09	MAS = 10.00 (m)	1660.00	1614.82				MinPt-O-SF		
	1330.42	177.98	1211.44	1152.44	11.27	OSF1.50	7960.00	7127.00				MinPt-O-SF		
	1394.64	419.55	1114.61	975.09	4.99	OSF1.50	13280.00	7127.00				Enter Alert		
	1393.69	673.62	944.28	720.06	3.11	OSF1.50	17314.16	7127.00				MinPts		
Judy 3-2-4L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
	126.07	32.81	125.08	93.26	N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	126.07	32.81	125.08	93.26	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	126.07	32.81	123.20	93.26	66.22	MAS = 10.00 (m)	250.00	250.00				MinPts		
	126.22	32.81	123.05	93.41	57.30	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	212.28	32.81	201.81	179.47	22.28	MAS = 10.00 (m)	1010.00	1001.12				MinPt-O-SF		
	1584.64	476.69	1266.52	1107.95	4.99	OSF1.50	14110.00	7127.00				Enter Alert		
	1585.77	676.31	1134.57	909.46	3.52	OSF1.50	17300.00	7127.00				MinPts		
	1585.85	676.01	1134.84	909.83	3.52	OSF1.50	17314.16	7127.00				TD		
Judy 3-2-2L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
	154.42	32.81	153.44	121.61	N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	154.42	32.81	153.44	121.61	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	131.53	32.81	113.40	98.72	7.61	MAS = 10.00 (m)	1490.00	1455.18				MinPts		
	131.95	32.81	112.94	99.14	7.27	MAS = 10.00 (m)	1550.00	1511.52				MINPT-O-EOU		
	138.06	32.81	116.68	105.25	6.72	MAS = 10.00 (m)	1740.00	1689.94				MinPt-O-SF		
	875.54	157.21	770.40	718.32	8.40	OSF1.50	7650.00	7073.45				MinPt-O-SF		
	952.72	286.62	761.31	666.10	5.00	OSF1.50	11140.00	7127.00				Enter Alert		
	951.15	671.34	503.27	279.82	2.13	OSF1.50	17314.16	7127.00				MinPts		
Judy 3-8-2L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
	151.28	32.81	150.30	118.47	N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	151.28	32.81	150.30	118.47	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	151.28	32.81	148.41	118.47	79.56	MAS = 10.00 (m)	250.00	250.00				MinPts		
	151.44	32.81	148.27	118.63	68.83	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	250.23	32.81	239.15	217.42	24.68	MAS = 10.00 (m)	1070.00	1058.85				MinPt-O-SF		
	1807.34	122.52	1725.33	1684.82	22.29	OSF1.50	7940.00	7127.00				MinPt-ClCt		
	1810.03	544.06	1446.99	1265.96	5.00	OSF1.50	15100.00	7127.00				Enter Alert		
	1810.86	684.28	1354.34	1126.58	3.97	OSF1.50	17300.00	7127.00				MinPts		
	1810.95	684.10	1354.55	1126.84	3.97	OSF1.50	17314.16	7127.00				TD		
Judy 3-9-3L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
	176.50	32.81	175.51	143.69	N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	176.50	32.81	175.51	143.69	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	176.50	32.81	173.62	143.69	92.91	MAS = 10.00 (m)	250.00	250.00				MinPts		
	176.65	32.81	173.48	143.84	80.37	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	298.47	32.81	286.66	265.66	27.49	MAS = 10.00 (m)	1140.00	1125.75				MinPt-O-SF		
	2156.23	648.14	1723.81	1508.09	5.00	OSF1.50	16740.00	7127.00				Enter Alert		
	2156.46	683.50	1700.46	1472.96	4.74	OSF1.50	17300.00	7127.00				MinPts		
	2156.55	683.48	1700.57	1473.07	4.74	OSF1.50	17314.16	7127.00				TD		
Great Western Wagner 41-10 Blind 0' to 8100' - PA (Def Survey)													Warning Alert	
	7565.95	32.81	7563.96	7533.14	42844.81	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	7565.95	32.81	7563.38	7533.14	9997.12	MAS = 10.00 (m)	23.00	23.00				WRP		
	1485.62	448.77	1185.91	1036.85	4.98	OSF1.50	12540.00	7127.00				Enter Alert		
	1019.86	530.44	665.70	489.42	2.89	OSF1.50	13620.00	7127.00				MinPt-ClCt		
	1021.07	534.04	664.51	487.03	2.87	OSF1.50	13670.00	7127.00				MINPT-O-EOU		
	1022.24	535.37	664.79	486.87	2.87	OSF1.50	13690.00	7127.00				MinPt-O-ADP		
	1025.75	537.84	666.66	487.91	2.86	OSF1.50	13730.00	7127.00				MinPt-O-SF		
	1731.87	522.19	1383.22	1209.69	4.99	OSF1.50	15020.00	7127.00				Exit Alert		
	3832.10	485.17	3508.12	3346.93	11.88	OSF1.50	17314.16	7127.00				TD		
Kallsen 14-10X Blind 0' to 8114' - PR (Def Survey)													Warning Alert	
	9775.85	32.81	9773.09	9743.04	10319.31	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface		
	9775.85	32.81	9772.48	9743.04	6296.53	MAS = 10.00 (m)	23.00	23.00				WRP		
	2017.29	606.75	1612.25	1410.54	5.00	OSF1.50	15990.00	7127.00				Enter Alert		
	1927.56	621.19	1512.90	1306.38	4.66	OSF1.50	16580.00	7127.00				MinPt-ClCt		
	1927.56	621.20	1512.89	1306.36	4.66	OSF1.50	16590.00	7127.00				MinPts		
	2020.29	608.01	1614.41	1412.27	4.99	OSF1.50	17190.00	7127.00				Exit Alert		
	2060.88	602.52	1658.66	1458.36	5.14	OSF1.50	17314.16	7127.00				TD		
Desha 4-1-3L - Plan (Def Plan)													Pass	
	149.36	32.81	148.37	116.55	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	149.36	32.81	148.36	116.55	8375.45	MAS = 10.00 (m)	23.00	23.00				WRP		
	146.48	32.81	139.46	113.67	24.11	MAS = 10.00 (m)	660.00	658.60				MinPts		
	146.78	32.81	139.12	113.97	21.87	MAS = 10.00 (m)	720.00	717.89				MINPT-O-EOU		
	172.83	32.81	161.25	140.02	16.21	MAS = 10.00 (m)	1080.00	1068.44				MinPt-O-SF		
	3483.63	725.46	2999.66	2758.16	7.21	OSF1.50	17314.16	7127.00				MinPts		

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
Desha 4-2-2L - Plan (Def Plan)														
	151.47	32.81	150.49	118.66	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	151.47	32.81	150.47	118.66	8494.74	MAS = 10.00 (m)	23.00	23.00				WRP		
	151.41	32.81	146.93	118.60	43.10	MAS = 10.00 (m)	410.00	409.92				MinPts		
	151.68	32.81	146.11	118.87	32.84	MAS = 10.00 (m)	520.00	519.60				MINPT-O-EQU		
	191.60	32.81	182.09	158.79	22.36	MAS = 10.00 (m)	910.00	904.18				MnPt-O-SF		
	3806.19	725.51	3322.19	3080.69	7.88	OSF1.50	17314.16	7127.00				MinPts		
Desha 4-1-4L - Plan (Def Plan)														
	157.64	32.81	156.66	124.83	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	157.64	32.81	156.64	124.83	7369.19	MAS = 10.00 (m)	23.00	23.00				WRP		
	157.64	32.81	154.74	124.83	81.89	MAS = 10.00 (m)	250.00	250.00				MinPts		
	158.47	32.81	153.79	125.66	42.61	MAS = 10.00 (m)	430.00	429.88				MINPT-O-EQU		
	208.94	32.81	199.46	176.13	24.48	MAS = 10.00 (m)	910.00	904.18				MnPt-O-SF		
	3375.02	85.89	3317.43	3289.13	59.61	OSF1.50	6790.00	6432.00				MnPt-O-SF		
	3500.97	88.68	3441.52	3412.29	59.87	OSF1.50	7020.00	6645.62				MnPt-O-SF		
	4069.41	723.88	3586.50	3345.53	8.44	OSF1.50	17314.16	7127.00				MinPts		
Desha 4-3-1L - Plan (Def Plan)														
	167.42	32.81	166.44	134.61	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	167.42	32.81	166.41	134.61	7829.18	MAS = 10.00 (m)	23.00	23.00				WRP		
	167.42	32.81	164.52	134.61	87.00	MAS = 10.00 (m)	250.00	250.00				MinPts		
	167.90	32.81	164.01	135.09	57.53	MAS = 10.00 (m)	350.00	349.98				MINPT-O-EQU		
	226.72	32.81	217.26	193.91	26.64	MAS = 10.00 (m)	910.00	904.18				MnPt-O-SF		
	4243.28	725.57	3759.24	3517.71	8.78	OSF1.50	17314.16	7127.00				MinPts		
Desha 4-4-3L - Plan (Def Plan)														
	180.22	32.81	179.24	147.41	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	180.22	32.81	179.22	147.41	8431.35	MAS = 10.00 (m)	23.00	23.00				WRP		
	180.22	32.81	177.32	147.41	93.70	MAS = 10.00 (m)	250.00	250.00				MinPts		
	180.55	32.81	176.96	147.74	68.93	MAS = 10.00 (m)	320.00	319.99				MINPT-O-EQU		
	248.74	32.81	239.21	215.93	28.97	MAS = 10.00 (m)	920.00	913.91				MnPt-O-SF		
	4536.81	724.91	4053.21	3811.90	9.40	OSF1.50	17314.16	7127.00				MinPts		
Desha 4-5-2L - Plan (Def Plan)														
	195.45	32.81	194.47	162.64	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	195.45	32.81	194.45	162.64	9147.79	MAS = 10.00 (m)	23.00	23.00				WRP		
	195.45	32.81	192.55	162.64	101.66	MAS = 10.00 (m)	250.00	250.00				MinPts		
	195.76	32.81	192.27	162.95	77.71	MAS = 10.00 (m)	310.00	310.00				MINPT-O-EQU		
	275.65	32.81	265.95	242.85	31.51	MAS = 10.00 (m)	940.00	933.35				MnPt-O-SF		
	4861.50	725.05	4377.80	4136.45	10.07	OSF1.50	17314.16	7127.00				MinPts		
Judy 3-10-1L R0 mdv 11Jul22 (Def Plan)														
	201.71	32.81	200.73	168.90	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	201.71	32.81	200.73	168.90	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	201.71	32.81	198.84	168.90	106.26	MAS = 10.00 (m)	250.00	250.00				MinPts		
	201.86	32.81	198.69	169.06	91.90	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EQU		
	351.97	32.81	339.67	319.17	31.01	MAS = 10.00 (m)	1190.00	1173.22				MnPt-O-SF		
	358.37	32.81	345.87	325.57	31.01	MAS = 10.00 (m)	1210.00	1192.13				MnPt-O-SF		
	2500.33	684.81	2043.46	1815.52	5.48	OSF1.50	17300.00	7127.00				MINPT-O-EQU		
	2500.39	684.88	2043.48	1815.52	5.48	OSF1.50	17310.00	7127.00				MnPt-O-ADP		
	2500.43	684.90	2043.50	1815.53	5.48	OSF1.50	17314.16	7127.00				MnPt-O-SF		
Desha 4-2-4L - Plan (Def Plan)														
	212.59	32.81	211.61	179.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		Pass
	212.59	32.81	211.58	179.78	9953.98	MAS = 10.00 (m)	23.00	23.00				WRP		
	212.59	32.81	209.69	179.78	110.62	MAS = 10.00 (m)	250.00	250.00				MinPts		
	212.83	32.81	209.44	180.03	88.00	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EQU		
	303.34	32.81	293.47	270.53	34.02	MAS = 10.00 (m)	960.00	952.75				MnPt-O-SF		
	3354.82	64.79	3311.30	3290.03	78.85	OSF1.50	5790.00	5492.98				MnPt-O-SF		
	5122.77	723.98	4639.79	4398.79	10.63	OSF1.50	17314.16	7127.00				MinPts		
Judy 3-3-4L R0 mdv 11Jul22 (Def Plan)														
	226.92	32.81	225.94	194.12	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	226.92	32.81	225.94	194.12	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	226.92	32.81	224.05	194.12	119.61	MAS = 10.00 (m)	250.00	250.00				MinPts		
	227.01	32.81	223.95	194.21	108.64	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EQU		
	416.14	32.81	403.25	383.33	34.86	MAS = 10.00 (m)	1250.00	1229.82				MnPt-O-SF		
	575.92	32.81	558.38	543.11	34.74	MAS = 10.00 (m)	1700.00	1652.38				MnPt-O-SF		
	1587.43	53.17	1551.65	1534.26	45.60	OSF1.50	4650.00	4422.50				MnPt-O-SF		
	2766.10	681.92	2311.16	2084.18	6.09	OSF1.50	17290.00	7127.00				MinPt-CICI		
	2766.20	682.17	2311.09	2084.03	6.09	OSF1.50	17310.00	7127.00				MINPT-O-EQU		
	2766.24	682.21	2311.10	2084.03	6.09	OSF1.50	17314.16	7127.00				MinPts		
Desha 4-6-1L - Plan (Def Plan)														
	231.21	32.81	230.23	198.40	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	231.21	32.81	230.21	198.40	10829.98	MAS = 10.00 (m)	23.00	23.00				WRP		
	231.21	32.81	228.31	198.40	120.35	MAS = 10.00 (m)	250.00	250.00				MinPts		
	231.48	32.81	228.09	198.68	95.74	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EQU		
	336.02	32.81	325.89	303.21	36.63	MAS = 10.00 (m)	990.00	981.80				MnPt-O-SF		
	5297.12	725.47	4813.15	4571.66	10.97	OSF1.50	17314.16	7127.00				MinPts		
Desha 4-7-3L - Plan (Def Plan)														
	250.99	32.81	250.00	218.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	250.99	32.81	249.98	218.18	11760.26	MAS = 10.00 (m)	23.00	23.00				WRP		
	250.99	32.81	248.09	218.18	130.69	MAS = 10.00 (m)	250.00	250.00				MinPts		
	251.18	32.81	247.88	218.37	108.37	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EQU		
	369.85	32.81	359.47	337.05	39.25	MAS = 10.00 (m)	1020.00	1010.76				MnPt-O-SF		
	5591.54	724.92	5107.93	4866.62	11.58	OSF1.50	17314.16	7127.00				MinPts		
Judy 3-11-2L R0 mdv 11Jul22 (Def Plan)														
	271.67	32.81	270.68	238.86	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
	271.67	32.81	270.68	238.86	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	271.67	32.81	268.79	238.86	143.29	MAS = 10.00 (m)	250.00	250.00				MinPts		

...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-4-1L\Original Hole\Judy 3-4-1L R0 mdv 11Jul22

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
271.93	32.81	288.56	239.12	113.56		MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
563.41	32.81	545.63	530.60	33.50		MAS = 10.00 (m)	1700.00	1652.38				MinPt-O-SF	
1371.74	46.33	1340.53	1325.41	45.34		OSF1.50	4090.00	3896.64				MinPt-O-SF	
3025.02	679.43	2571.73	2345.58	6.69		OSF1.50	17314.16	7127.00				MinPts	
Judy 3-4 MWD 0' to 7730' - PR (Def Survey)													Pass
293.11	32.81	291.29	260.30	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
293.05	32.81	291.22	260.25	16130.94		MAS = 10.00 (m)	23.00	23.00				WRP	
292.33	32.81	288.46	259.52	141.24		MAS = 10.00 (m)	270.00	270.00				MinPts	
292.49	32.81	288.32	259.68	123.64		MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
540.96	32.81	523.61	508.15	34.70		MAS = 10.00 (m)	1590.00	1549.09				MinPt-O-SF	
557.50	32.81	539.67	524.69	34.70		MAS = 10.00 (m)	1640.00	1596.04				MinPt-O-SF	
878.55	35.18	854.57	843.37	39.18		OSF1.50	2510.00	2412.99				MinPt-O-SF	
989.99	39.74	962.96	950.25	38.88		OSF1.50	2800.00	2685.30				MinPt-O-SF	
1058.27	42.68	1029.29	1015.60	38.50		OSF1.50	2980.00	2854.33				MinPt-O-SF	
1179.38	47.69	1147.05	1131.69	38.34		OSF1.50	3290.00	3145.42				MinPt-O-SF	
1461.47	60.66	1420.49	1400.81	37.08		OSF1.50	4030.00	3840.30				MinPt-O-SF	
1664.43	70.44	1616.94	1593.99	36.24		OSF1.50	4550.00	4328.59				MinPt-O-SF	
1842.79	79.71	1789.11	1763.08	35.36		OSF1.50	5000.00	4751.15				MinPt-O-SF	
2065.85	89.16	2005.88	1976.70	35.37		OSF1.50	5560.00	5277.01				MinPt-O-SF	
2335.65	103.15	2266.35	2232.50	34.48		OSF1.50	6240.00	5915.54				MinPt-O-SF	
2446.32	109.67	2372.67	2336.65	33.93		OSF1.50	6530.00	6187.86				MinPt-O-SF	
2678.57	133.23	2589.22	2545.35	30.51		OSF1.50	8070.00	7127.00				MinPt-CtCt	
2678.60	133.27	2589.22	2545.33	30.50		OSF1.50	8080.00	7127.00				MinPts	
2687.75	134.23	2597.73	2553.52	30.38		OSF1.50	8290.00	7127.00				MinPt-O-SF	
2690.39	134.36	2600.29	2556.04	30.38		OSF1.50	8320.00	7127.00				MinPt-O-SF	
9626.23	139.96	9532.39	9486.27	104.35		OSF1.50	17314.16	7127.00				TD	
Jordan 34-9 Blind 0' to 7970' - PA (Def Survey)													Pass
447.75	32.81	445.94	414.94	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
447.42	32.81	445.56	414.61	10100.30		MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
447.30	32.81	445.43	414.50	7176.23		MAS = 10.00 (m)	23.00	23.00				WRP	
447.30	32.81	438.05	414.50	59.83		MAS = 10.00 (m)	250.00	250.00				MinPts	
449.84	32.81	435.33	417.03	35.29		MAS = 10.00 (m)	380.00	379.96				MINPT-O-EOU	
2552.49	399.59	2285.56	2152.90	9.61		OSF1.50	7020.00	6645.62				MinPt-O-SF	
10697.15	438.04	10404.59	10259.11	36.76		OSF1.50	17314.16	7127.00				TD	
Jordan 34-3 Blind 0' to 8008' - PR (Def Survey)													Pass
1090.02	32.81	1088.21	1057.21	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
1089.19	32.81	1087.26	1056.38	9316.93		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
996.63	117.21	917.95	879.42	12.91		OSF1.50	2020.00	1952.87				MinPt-CtCt	
1002.96	136.14	911.67	866.82	11.16		OSF1.50	2350.00	2262.74				MINPT-O-EOU	
1011.19	145.92	913.38	865.27	10.49		OSF1.50	2520.00	2422.38				MinPt-O-ADP	
1711.71	347.54	1479.49	1364.18	7.42		OSF1.50	6070.00	5755.91				MinPt-O-SF	
11512.26	435.00	11221.73	11077.26	39.84		OSF1.50	17314.16	7127.00				TD	
HSR-Cherry Knolls 9-33 Blind 0' to 8251' - DA (Def Survey)													Pass
1809.69	32.81	1807.88	1776.88	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
1809.56	32.81	1807.73	1776.76	92069.52		MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
1809.48	32.81	1807.66	1776.67	144095.65		MAS = 10.00 (m)	23.00	23.00				WRP	
1809.47	32.81	1800.51	1776.67	252.66		MAS = 10.00 (m)	250.00	250.00				MinPts	
1811.95	32.81	1798.13	1779.14	150.76		MAS = 10.00 (m)	370.00	369.96				MINPT-O-EOU	
4076.97	413.74	3800.61	3663.23	14.83		OSF1.50	7310.00	6884.49				MinPt-O-SF	
11835.84	442.97	11540.00	11392.87	40.22		OSF1.50	17314.16	7127.00				TD	
Kalsen 1-10 Blind 0' to 8290' - PR (Def Survey)													Pass
7102.42	32.81	7099.50	7069.61	6427.01		MAS = 10.00 (m)	0.00	0.00				Surface	
7102.42	32.81	7098.89	7069.61	4152.83		MAS = 10.00 (m)	23.00	23.00				WRP	
6894.14	338.56	6667.90	6555.58	30.68		OSF1.50	5710.00	5417.86				MinPt-CtCt	
1948.12	539.99	1587.59	1408.13	5.42		OSF1.50	13910.00	7127.00				MinPts	
1948.14	540.00	1587.61	1408.14	5.42		OSF1.50	13920.00	7127.00				MinPt-O-SF	
3922.14	468.42	3609.33	3453.72	12.60		OSF1.50	17314.16	7127.00				TD	
Kalsen 14-10 Blind 0' to 8244' - PA (Def Survey)													Pass
10116.24	32.81	10113.22	10083.44	8355.02		MAS = 10.00 (m)	0.00	0.00				Surface	
10116.24	32.81	10112.62	10083.44	5570.01		MAS = 10.00 (m)	23.00	23.00				WRP	
9923.78	383.14	9667.82	9540.64	39.01		OSF1.50	6460.00	6122.13				MinPt-CtCt	
2283.18	633.14	1860.56	1650.05	5.42		OSF1.50	16930.00	7127.00				MinPt-CtCt	
2283.20	633.20	1860.53	1650.00	5.42		OSF1.50	16940.00	7127.00				MINPT-O-EOU	
2283.25	633.26	1860.55	1650.00	5.42		OSF1.50	16950.00	7127.00				MinPt-O-ADP	
2283.50	633.35	1860.73	1650.15	5.42		OSF1.50	16970.00	7127.00				MinPt-O-SF	
2314.94	631.14	1893.65	1683.81	5.51		OSF1.50	17314.16	7127.00				TD	
RMPCO-UPRR_Penrod 1 Blind 0' to 8112' - PA (Def Survey)													Pass
5165.16	32.81	5163.22	5132.35	39273.94		MAS = 10.00 (m)	0.00	0.00				Surface	
5165.16	32.81	5162.61	5132.35	7013.20		MAS = 10.00 (m)	23.00	23.00				WRP	
5119.68	161.91	5011.20	4957.77	47.89		OSF1.50	2740.00	2628.96				MinPt-CtCt	
5153.07	261.32	4978.32	4891.75	29.75		OSF1.50	4440.00	4225.30				MINPT-O-EOU	
5196.17	313.03	4986.95	4883.14	25.02		OSF1.50	5320.00	5051.64				MinPt-O-ADP	
2608.54	489.94	2281.37	2118.59	8.01		OSF1.50	11970.00	7127.00				MinPt-CtCt	
2608.55	490.01	2281.35	2118.55	8.01		OSF1.50	11980.00	7127.00				MINPT-O-EOU	
2608.61	490.07	2281.36	2118.54	8.01		OSF1.50	11990.00	7127.00				MinPt-O-ADP	
2609.45	490.34	2282.02	2119.11	8.00		OSF1.50	12040.00	7127.00				MinPt-O-SF	
5945.94	456.94	5640.78	5489.00	19.58		OSF1.50	17314.16	7127.00				TD	