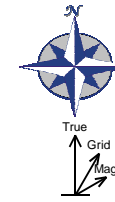
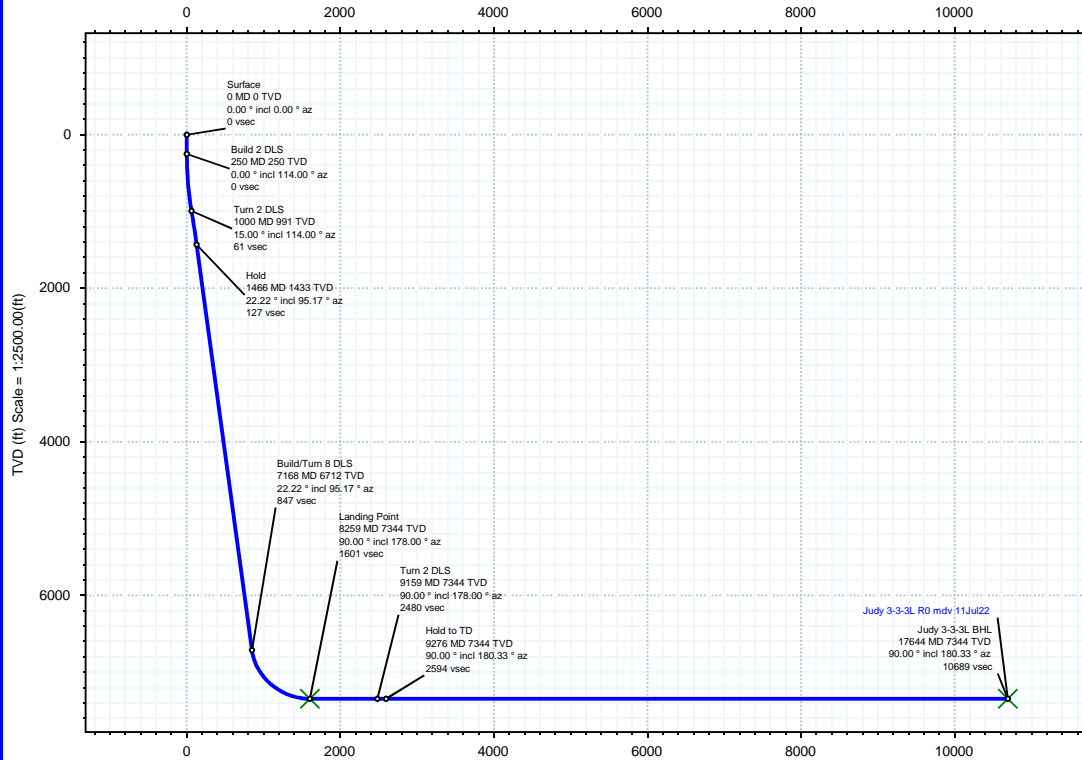


Borehole:	Well:	Field:	Structure:
Original Hole	Judy 3-3-3L	CO, Weld County (NAD 83 NZ) - 2019	Confluence 34-01N-65W (Judy 34 Pad)

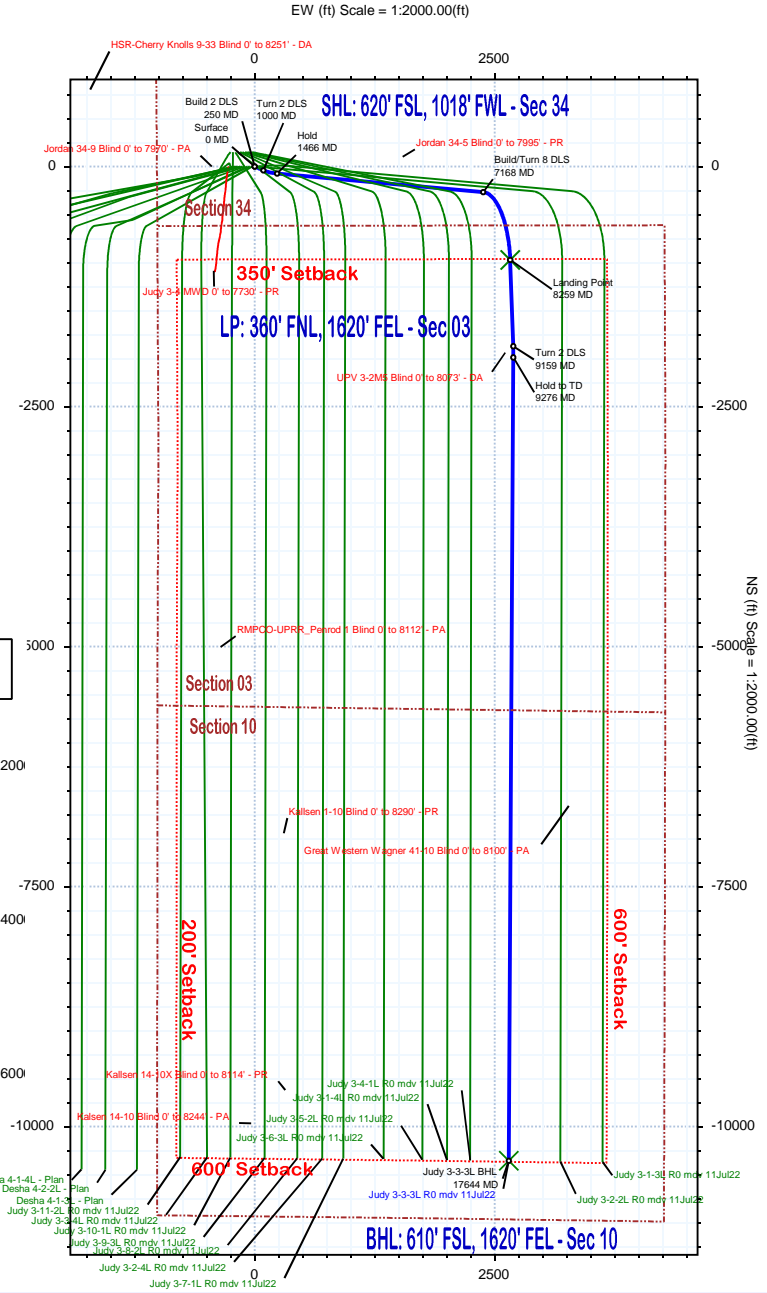
Gravity & Magnetic Parameters	Surface Location	NAD83 Colorado State Plane, Northern Zone, US Feet	Miscellaneous
Model: HDGM 2022 Dip: 66.209° Date: 11-Jul-2022	Lat: N 40 0 8.10 Northing: 1244791.89ftUS Grid Conv: 0.5454°	Lon: W 104 39 21.28 Easting: 3236463.47ftUS Scale Fact: 0.9999662	Slot: Judy 3-3-3L TVD Ref: KB = 23ft(5157ft above MSL)
MagDec: 7.886° FS: 51570.992nT Gravity FS: 998.981mgn (9.80665 Based)			Plan: Judy 3-3-3L R0 mdy 11Jul22

Surface Location		Grid Coord		Local Coord	
Target Description	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 3-3-3L BHL	N 39 58 25.75	W 104 38 47.29	1234461.39	3239207.59	7344.00
Judy 3-3-3L LP	N 39 59 58.49	W 104 38 47.08	1243844.80	3239134.08	7344.00

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	114.00	250.00	0.00
Turn 2 DLS	1000.00	15.00	114.00	991.46	60.54
Hold	1465.64	22.22	95.17	1432.85	127.45
Build/Turn 8 DLS	7168.05	22.22	95.17	6711.60	847.38
Landing Point	8259.23	90.00	178.00	7344.00	1601.03
Turn 2 DLS	9159.23	90.00	178.00	7344.00	2480.27
Hold to TD	9275.98	90.00	180.33	7344.00	2593.78
Judy 3-3-3L BHL	17643.97	90.00	180.33	7344.00	10689.14



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



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

(Def Plan)

Report Date: July 13, 2022 - 12:36 PM
Client: Confluence DJ
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Confluence 34-01N-65W (Judy 34 Pad) / Judy 3-3-3L
Well: Judy 3-3-3L
Borehole: Original Hole
UWI / API#: 05-123-44208
Survey Name: Judy 3-3-3L R0 mdv 11Jul22
Survey Date: July 11, 2022
Tort / AHD / DDI / ERD Ratio: 113.943 ° / 12588.084 ft / 6.537 / 1.714
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 0' 8.10000", W 104° 39' 21.27600"
Location Grid N/E Y/X: N 1244791.895 ftUS, E 3236463.471 ftUS
CRS Grid Convergence Angle: 0.5454 °
Grid Scale Factor: 0.9999662
Version / Patch: 2.10.829.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 165.669 ° (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: 998.9811mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51570.992 nT
Magnetic Dip Angle: 66.209 °
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: 7.8860 °
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 (°)
Surface	0.00	0.00	0.00	0.00	-5157.00	0.00	0.00	0.00	N/A	1244791.89	3236463.47	40.002250	-104.655910
	100.00	0.00	114.00	100.00	-5057.00	0.00	0.00	0.00	0.00	1244791.89	3236463.47	40.002250	-104.655910
	200.00	0.00	114.00	200.00	-4957.00	0.00	0.00	0.00	0.00	1244791.89	3236463.47	40.002250	-104.655910
	250.00	0.00	114.00	250.00	-4907.00	0.00	0.00	0.00	0.00	1244791.89	3236463.47	40.002250	-104.655910
	300.00	1.00	114.00	300.00	-4857.00	0.27	-0.18	0.40	2.00	1244791.72	3236463.87	40.002250	-104.655909
	400.00	3.00	114.00	399.93	-4757.07	2.43	-1.60	3.59	2.00	1244790.33	3236467.07	40.002246	-104.655897
	500.00	5.00	114.00	499.68	-4657.32	6.76	-4.43	9.96	2.00	1244787.56	3236473.47	40.002238	-104.655874
	600.00	7.00	114.00	599.13	-4557.87	13.24	-8.69	19.51	2.00	1244783.40	3236483.06	40.002226	-104.655840
	700.00	9.00	114.00	698.15	-4458.85	21.87	-14.35	32.22	2.00	1244777.86	3236495.83	40.002211	-104.655795
	800.00	11.00	114.00	796.63	-4360.37	32.64	-21.41	48.08	2.00	1244770.95	3236511.75	40.002191	-104.655738
Turn 2 DLS	900.00	13.00	114.00	894.44	-4262.56	45.54	-29.86	67.08	2.00	1244762.67	3236530.83	40.002168	-104.655671
	1000.00	15.00	114.00	991.46	-4165.54	60.54	-39.70	89.18	2.00	1244753.04	3236553.02	40.002141	-104.655592
	1100.00	16.38	108.64	1087.74	-4069.26	76.24	-49.48	114.36	2.00	1244743.51	3236578.29	40.002114	-104.655502
	1200.00	17.88	104.13	1183.30	-3973.70	91.23	-57.73	142.61	2.00	1244735.53	3236606.62	40.002092	-104.655401
	1300.00	19.46	100.31	1278.04	-3878.96	105.49	-64.46	173.88	2.00	1244729.10	3236637.95	40.002073	-104.655289
	1400.00	21.11	97.05	1371.84	-3785.16	119.00	-68.65	208.15	2.00	1244724.23	3236667.27	40.002059	-104.655167
	1465.64	22.22	95.17	1432.85	-3724.15	127.45	-72.22	232.25	2.00	1244721.89	3236686.39	40.002052	-104.655081
	1500.00	22.22	95.17	1464.65	-3692.35	131.79	-73.39	245.19	0.00	1244720.85	3236709.34	40.002049	-104.655035
	1600.00	22.22	95.17	1557.22	-3599.78	144.42	-76.79	282.86	0.00	1244717.80	3236747.04	40.002039	-104.654900
	1700.00	22.22	95.17	1649.79	-3507.21	157.04	-80.20	320.53	0.00	1244714.75	3236784.74	40.002030	-104.654766
Hold	1800.00	22.22	95.17	1742.36	-3414.64	169.67	-83.61	358.20	0.00	1244711.70	3236822.44	40.002020	-104.654631
	1900.00	22.22	95.17	1834.93	-3322.07	182.29	-87.01	395.87	0.00	1244708.66	3236860.14	40.002011	-104.654497
	2000.00	22.22	95.17	1927.50	-3229.50	194.92	-90.42	433.54	0.00	1244705.61	3236897.84	40.002002	-104.654362
	2100.00	22.22	95.17	2020.07	-3136.93	207.54	-93.83	471.21	0.00	1244702.56	3236935.54	40.001992	-104.654228
	2200.00	22.22	95.17	2112.65	-3044.35	220.17	-97.23	508.88	0.00	1244699.51	3236973.24	40.001983	-104.654094
	2300.00	22.22	95.17	2205.22	-2951.78	232.79	-100.64	546.55	0.00	1244696.46	3237010.94	40.001974	-104.653959
	2400.00	22.22	95.17	2297.79	-2859.21	245.42	-104.05	584.22	0.00	1244693.42	3237048.64	40.001964	-104.653825
	2500.00	22.22	95.17	2390.36	-2766.64	258.04	-107.46	621.89	0.00	1244690.37	3237086.34	40.001955	-104.653690
	2600.00	22.22	95.17	2482.93	-2674.07	270.67	-110.86	659.57	0.00	1244687.32	3237124.04	40.001946	-104.653556
	2700.00	22.22	95.17	2575.50	-2581.50	283.29	-114.27	697.24	0.00	1244684.27	3237161.74	40.001936	-104.653421
	2800.00	22.22	95.17	2668.07	-2488.93	295.92	-117.68	734.91	0.00	1244681.22	3237199.44	40.001927	-104.653287
	2900.00	22.22	95.17	2760.64	-2396.36	308.54	-121.08	772.58	0.00	1244678.18	3237237.14	40.001918	-104.653152
	3000.00	22.22	95.17	2853.21	-2303.79	321.17	-124.49	810.25	0.00	1244675.13	3237274.84	40.001908	-104.653018
	3100.00	22.22	95.17	2945.78	-2211.22	333.79	-127.90	847.92	0.00	1244672.08	3237312.54	40.001899	-104.652883
	3200.00	22.22	95.17	3038.35	-2118.65	346.42	-131.30	885.59	0.00	1244669.03	3237350.24	40.001890	-104.652749
	3300.00	22.22	95.17	3130.92	-2026.08	359.04	-134.71	923.26	0.00	1244665.98	3237387.94	40.001880	-104.652614
	3400.00	22.22	95.17	3223.49	-1933.51	371.67	-138.12	960.93	0.00	1244662.94	3237425.64	40.001871	-104.652480
	3500.00	22.22	95.17	3316.06	-1840.94	384.29	-141.52	998.60	0.00	1244659.89	3237463.34	40.001861	-104.652346
	3600.00	22.22	95.17	3408.63	-1748.37	396.92	-144.93	1036.27	0.00	1244656.84	3237501.04	40.001852	-104.652211
	3700.00	22.22	95.17	3501.20	-1655.80	409.54	-148.34	1073.94	0.00	1244653.79	3237538.74	40.001843	-104.652077
	3800.00	22.22	95.17	3593.77	-1563.23	422.17	-151.74	1111.61	0.00	1244650.74	3237576.44	40.001833	-104.651942
	3900.00	22.22	95.17	3686.35	-1470.65	434.79	-155.15	1149.28	0.00	1244647.70	3237614.14	40.001824	-104.651808
	4000.00	22.22	95.17	3778.92	-1378.08	447.42	-158.56	1186.95	0.00	1244644.65	3237651.84	40.001815	-104.651673
	4100.00	22.22	95.17	3871.49	-1285.51	460.04	-161.96	1224.63	0.00	1244641.60	3237689.54	40.001805	-104.651539
	4200.00	22.22	95.17	3964.06	-1192.94	472.67	-165.37	1262.30	0.00	1244638.55	3237727.24	40.001796	-104.651404
	4300.00	22.22	95.17	4056.63	-1100.37	485.29	-168.78	1299.97	0.00	1244635.50	3237764.94	40.001787	-104.651270
	4400.00	22.22	95.17	4149.20	-1007.80	497.92	-172.19	1337.64	0.00	1244632.46	3237802.64	40.001777	-104.651135
	4500.00	22.22	95.17	4241.77	-915.23	510.54	-175.59	1375.31	0.00	1244629.41	3237840.34	40.001768	-104.651001
	4600.00	22.22	95.17	4334.34	-822.66	523.17	-179.00	1412.98	0.00	1244626.36	3237878.04	40.001759	-104.650866
	4700.00	22.22	95.17	4426.91	-730.09	535.79	-182.41	1450.65	0.00	1244623.31	3237915.74	40.001749	-104.650732
	4800.00	22.22	95.17	4519.48	-637.52	548.42	-185.81	1488.32	0.00	1244620.26	3237953.44	40.001740	-104.650598
	4900.00	22.22	95.17	4612.05	-544.95	561.04	-189.22	1525.99	0.00	1244617.22	3237991.14	40.001730	-104.650463
	5000.00	22.22	95.17	4704.62	-452.38	573.67	-192.63	1563.66	0.00	1244614.17	3238028.84	40.001721	-104.650329
	5100.00	22.22	95.17	4797.19	-359.81	586.29	-196.03	1601.33	0.00	1244611.12	3238066.54	40.001712	-104.650194
	5200.00	22.22	95.17	4889.76	-267.24	598.92	-199.44	1639.00	0.00	1244608.07	3238104.24	40.001702	-104.650060
	5300.00	22.22	95.17	4982.33	-174.67	611.54	-202.85	1676.67	0.00	1244605.02	3238141.94	40.001693	-104.649925
	5400.00	22.22	95.17	5074.90	-82.10	624.17	-206.25	1714.34	0.00	1244601.98	3238179.64	40.001684	-104.649791
	5500.00	22.22	95.17	5167.47	10.47	636.79	-209.66	1752.01	0.00	1244598.93	3238217.34	40.001674	-104.649656
	5600.00	22.22	95.17	5260.05	103.05	649.42	-213.07	1789.68	0.00	1244595.88	3238255.04	40.001665	-104.649522
	5700.00	22.22	95.17	5352.62	195.62	662.04	-216.47	1827.36	0.00	1244592.83	3238292.74	40.001656	-104.649387
	5800.00	22.22	95.17	5445.19	288.19	674.67	-219.88	1865.03	0.00	1244589.78	3238330.44	40.001646	-104.649253
	5900.00	22.22	95.17	5537.76	380.76	687.29	-223.29	1902.70	0.00	1244586.74	3238368.14	40.001637	-104.649118
	6000.00	22.22	95.17	5630.33	473.33	699.92	-226.69	1940.37	0.00	1244583.69	3238405.84	40.001627	-104.648984
	6100.00	22.22	95.17	5722.90	565.90	712.54	-230.10	1978.04	0.00	1244580.64	3238443.54	40.001618	-104.648850
	6200.00	22.22	95.17	5815.47	658.47	725.17	-233.51	2015.71	0.00	1244577.59	3238481.24	40.001609	-104.648715
	6300.00	22.22	95.17	5908.04	751.04	737.79	-236.91	2053.38	0.00	1244574.54	3238518.94	40.001599	-104.648581
	6400.00	22.22	95.17	6000.61	843.61	750.42	-240.32	2091.05	0.00	1244571.50	3238556.64	40.001590	-104.648446
	6500.00	22.22	95.17	6093.18	936.18	763.04	-243.73	2128.72	0.00	1244568.45	3238594.34	40.001581	-104.648312
	6600.00	22.22	95.17	6185.75	1028.75	775.67	-247.14	2166.39	0.00	1244565.40	3238632.04	40.001571	-104.648177
	6700.00	22.22	95.17	6278.32	1121.32	788.29	-250.54	2204.06	0.00	1244562.35	3238669.74	40.001562	-104.648043
	6800.00	22.22	95.17	6370.89	1213.89	800.92	-253.95	2241.73	0.00	1244559.30	3238707.44	40.001553	-104.647908
	6900.00	22.22	95.17	6463.46	1306.46	813.54	-257.36	2279.40	0.00	1244556.26	323874		

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Landing Point	8200.00	85.61	176.22	7341.73	2184.73	1543.03	-913.40	2658.59	8.00	1243903.87	3239130.54	39.999742	-104.646421
	8259.23	90.00	178.00	7344.00	2187.00	1601.03	-972.50	2661.57	8.00	1243844.80	3239134.08	39.999580	-104.646410
	8300.00	90.00	178.00	7344.00	2187.00	1640.86	-1013.24	2662.99	0.00	1243804.08	3239135.89	39.999468	-104.646405
	8400.00	90.00	178.00	7344.00	2187.00	1738.55	-1113.18	2666.48	0.00	1243704.18	3239140.33	39.999194	-104.646393
	8500.00	90.00	178.00	7344.00	2187.00	1836.24	-1213.12	2669.97	0.00	1243604.28	3239144.78	39.998919	-104.646380
	8600.00	90.00	178.00	7344.00	2187.00	1933.93	-1313.06	2673.46	0.00	1243504.39	3239149.22	39.998645	-104.646368
	8700.00	90.00	178.00	7344.00	2187.00	2031.63	-1413.00	2676.95	0.00	1243404.49	3239153.66	39.998371	-104.646355
	8800.00	90.00	178.00	7344.00	2187.00	2129.32	-1512.94	2680.44	0.00	1243304.59	3239158.10	39.998096	-104.646343
	8900.00	90.00	178.00	7344.00	2187.00	2227.01	-1612.88	2683.93	0.00	1243204.69	3239162.54	39.997822	-104.646330
	9000.00	90.00	178.00	7344.00	2187.00	2324.71	-1712.82	2687.42	0.00	1243104.80	3239166.98	39.997548	-104.646318
Turn 2 DLS	9100.00	90.00	178.00	7344.00	2187.00	2422.40	-1812.76	2690.91	0.00	1243004.90	3239171.42	39.997273	-104.646306
	9159.23	90.00	178.00	7344.00	2187.00	2480.27	-1871.96	2692.98	0.00	1242945.72	3239174.05	39.997111	-104.646298
	9200.00	90.00	178.82	7344.00	2187.00	2520.03	-1912.70	2694.11	2.00	1242904.99	3239175.57	39.996999	-104.646294
	9275.98	90.00	180.33	7344.00	2187.00	2593.78	-1988.68	2694.68	2.00	1242829.02	3239176.86	39.996790	-104.646292
	9300.00	90.00	180.33	7344.00	2187.00	2617.02	-2012.70	2694.54	0.00	1242805.01	3239176.95	39.996725	-104.646293
	9400.00	90.00	180.33	7344.00	2187.00	2713.76	-2112.70	2693.95	0.00	1242705.01	3239177.31	39.996450	-104.646295
	9500.00	90.00	180.33	7344.00	2187.00	2810.50	-2212.70	2693.37	0.00	1242605.01	3239177.68	39.996176	-104.646297
	9600.00	90.00	180.33	7344.00	2187.00	2907.24	-2312.69	2692.78	0.00	1242505.02	3239178.05	39.995901	-104.646299
	9700.00	90.00	180.33	7344.00	2187.00	3003.99	-2412.69	2692.20	0.00	1242405.02	3239178.42	39.995627	-104.646301
	9800.00	90.00	180.33	7344.00	2187.00	3100.73	-2512.69	2691.61	0.00	1242305.03	3239178.78	39.995352	-104.646303
Hold to TD	9900.00	90.00	180.33	7344.00	2187.00	3197.47	-2612.69	2691.03	0.00	1242205.03	3239179.15	39.995078	-104.646305
	10000.00	90.00	180.33	7344.00	2187.00	3294.21	-2712.69	2690.44	0.00	1242105.04	3239179.52	39.994803	-104.646308
	10100.00	90.00	180.33	7344.00	2187.00	3391.95	-2812.69	2689.86	0.00	1242005.04	3239179.89	39.994529	-104.646310
	10200.00	90.00	180.33	7344.00	2187.00	3487.70	-2912.68	2689.28	0.00	1241905.04	3239180.25	39.994254	-104.646312
	10300.00	90.00	180.33	7344.00	2187.00	3584.44	-3012.68	2688.69	0.00	1241805.05	3239180.62	39.993980	-104.646314
	10400.00	90.00	180.33	7344.00	2187.00	3681.18	-3112.68	2688.11	0.00	1241705.05	3239180.99	39.993705	-104.646316
	10500.00	90.00	180.33	7344.00	2187.00	3777.92	-3212.68	2687.52	0.00	1241605.06	3239181.35	39.993431	-104.646318
	10600.00	90.00	180.33	7344.00	2187.00	3874.66	-3312.68	2686.94	0.00	1241505.06	3239181.72	39.993156	-104.646320
	10700.00	90.00	180.33	7344.00	2187.00	3971.41	-3412.68	2686.35	0.00	1241405.07	3239182.09	39.992881	-104.646322
	10800.00	90.00	180.33	7344.00	2187.00	4068.15	-3512.67	2685.77	0.00	1241305.07	3239182.46	39.992607	-104.646325
10900.00	90.00	180.33	7344.00	2187.00	4164.89	-3612.67	2685.18	0.00	1241205.07	3239182.82	39.992332	-104.646327	
11000.00	90.00	180.33	7344.00	2187.00	4261.63	-3712.67	2684.60	0.00	1241105.08	3239183.19	39.992058	-104.646329	
11100.00	90.00	180.33	7344.00	2187.00	4358.37	-3812.67	2684.01	0.00	1241005.08	3239183.56	39.991783	-104.646331	
11200.00	90.00	180.33	7344.00	2187.00	4455.12	-3912.67	2683.43	0.00	1240905.09	3239183.93	39.991509	-104.646333	
11300.00	90.00	180.33	7344.00	2187.00	4551.86	-4012.67	2682.84	0.00	1240805.09	3239184.29	39.991234	-104.646335	
11400.00	90.00	180.33	7344.00	2187.00	4648.60	-4112.66	2682.26	0.00	1240705.10	3239184.66	39.990960	-104.646337	
11500.00	90.00	180.33	7344.00	2187.00	4745.34	-4212.66	2681.68	0.00	1240605.10	3239185.03	39.990685	-104.646339	
11600.00	90.00	180.33	7344.00	2187.00	4842.08	-4312.66	2681.09	0.00	1240505.10	3239185.39	39.990411	-104.646342	
11700.00	90.00	180.33	7344.00	2187.00	4938.83	-4412.66	2680.51	0.00	1240405.11	3239185.76	39.990136	-104.646344	
11800.00	90.00	180.33	7344.00	2187.00	5035.57	-4512.66	2679.92	0.00	1240305.11	3239186.13	39.989862	-104.646346	
11900.00	90.00	180.33	7344.00	2187.00	5132.31	-4612.66	2679.34	0.00	1240205.12	3239186.50	39.989587	-104.646348	
12000.00	90.00	180.33	7344.00	2187.00	5229.05	-4712.65	2678.75	0.00	1240105.12	3239186.86	39.989313	-104.646350	
12100.00	90.00	180.33	7344.00	2187.00	5325.79	-4812.65	2678.17	0.00	1240005.12	3239187.23	39.989038	-104.646352	
12200.00	90.00	180.33	7344.00	2187.00	5422.54	-4912.65	2677.58	0.00	1239905.13	3239187.60	39.988764	-104.646354	
12300.00	90.00	180.33	7344.00	2187.00	5519.28	-5012.65	2677.00	0.00	1239805.13	3239187.97	39.988489	-104.646356	
12400.00	90.00	180.33	7344.00	2187.00	5616.02	-5112.65	2676.41	0.00	1239705.14	3239188.33	39.988215	-104.646359	
12500.00	90.00	180.33	7344.00	2187.00	5712.76	-5212.65	2675.83	0.00	1239605.14	3239188.70	39.987940	-104.646361	
12600.00	90.00	180.33	7344.00	2187.00	5809.50	-5312.64	2675.25	0.00	1239505.15	3239189.07	39.987666	-104.646363	
12700.00	90.00	180.33	7344.00	2187.00	5906.25	-5412.64	2674.66	0.00	1239405.15	3239189.44	39.987391	-104.646365	
12800.00	90.00	180.33	7344.00	2187.00	6002.99	-5512.64	2674.08	0.00	1239305.15	3239189.80	39.987117	-104.646367	
12900.00	90.00	180.33	7344.00	2187.00	6099.73	-5612.64	2673.49	0.00	1239205.16	3239190.17	39.986842	-104.646369	
13000.00	90.00	180.33	7344.00	2187.00	6196.47	-5712.64	2672.91	0.00	1239105.16	3239190.54	39.986568	-104.646371	
13100.00	90.00	180.33	7344.00	2187.00	6293.21	-5812.64	2672.32	0.00	1239005.17	3239190.90	39.986293	-104.646373	
13200.00	90.00	180.33	7344.00	2187.00	6389.96	-5912.63	2671.74	0.00	1238905.17	3239191.27	39.986019	-104.646376	
13300.00	90.00	180.33	7344.00	2187.00	6486.70	-6012.63	2671.15	0.00	1238805.18	3239191.64	39.985744	-104.646378	
13400.00	90.00	180.33	7344.00	2187.00	6583.44	-6112.63	2670.57	0.00	1238705.18	3239192.01	39.985470	-104.646380	
13500.00	90.00	180.33	7344.00	2187.00	6680.18	-6212.63	2669.98	0.00	1238605.18	3239192.37	39.985195	-104.646382	
13600.00	90.00	180.33	7344.00	2187.00	6776.92	-6312.63	2669.40	0.00	1238505.19	3239192.74	39.984921	-104.646384	
13700.00	90.00	180.33	7344.00	2187.00	6873.67	-6412.62	2668.82	0.00	1238405.19	3239193.11	39.984646	-104.646386	
13800.00	90.00	180.33	7344.00	2187.00	6970.41	-6512.62	2668.23	0.00	1238305.20	3239193.48	39.984372	-104.646388	
13900.00	90.00	180.33	7344.00	2187.00	7067.15	-6612.62	2667.65	0.00	1238205.20	3239193.84	39.984097	-104.646390	
14000.00	90.00	180.33	7344.00	2187.00	7163.89	-6712.62	2667.06	0.00	1238105.21	3			

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
		1	23.000	1700.000	1/100.000	13.500	9.625		B001Mb_MWD+HRGM			Original Hole / Judy 3-3-3L R0 mdv 11Jul22	
		1	1700.000	17643.967	1/100.000	8.500	5.500		B001Mb_MWD+HRGM			Original Hole / Judy 3-3-3L R0 mdv 11Jul22	

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

Analysis Date-24hr Time: July 13, 2022 - 12:36
Client: Confluence DJ
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure: Confluence 34-01N-65W (Judy 34 Pad)
Slot: Judy 3-3-3L
Well: Judy 3-3-3L
Borehole: Original Hole
Scan MD Range: 0.00ft ~ 17643.97ft

Analysis Method: 3D Least Distance
Reference Trajectory: Judy 3-3-3L 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

UPV 3-2M5 Blind 0' to 8073' - DA (Def Survey)													Fail Major
3250.86	32.81	3248.80	3218.05	13199.22	MAS = 10.00 (m)	0.00	0.00						Surface
3250.86	32.81	3248.28	3218.05	4270.34	MAS = 10.00 (m)	23.00	23.00						WRP
1487.96	448.05	1188.72	1039.91	4.99	OSF1.50	7670.00	7131.76	OSF<5.00					Enter Alert
460.16	464.11	150.22	-3.95	1.49	OSF1.50	8770.00	7344.00		OSF<1.50				Enter Minor
304.36	465.58	-6.57	-161.23	0.98	OSF1.50	8930.00	7344.00						Enter Major
87.68	459.27	-219.04	-371.58	0.28	OSF1.50	9200.00	7344.00						MinPt-O-ADP
85.54	456.88	-219.55	-371.30	0.28	OSF1.50	9210.00	7344.00						MinPt-O-EOU
84.49	454.31	-218.91	-369.82	0.27	OSF1.50	9220.00	7344.00						MinPts
296.73	455.37	-7.39	-158.64	0.98	OSF1.50	9510.00	7344.00						Exit Major
452.36	457.59	146.77	-5.23	1.48	OSF1.50	9670.00	7344.00		OSF>1.50				Exit Minor
1526.70	460.60	1219.10	1066.10	4.98	OSF1.50	10750.00	7344.00	OSF>5.00					Exit Alert
8418.73	463.84	8108.97	7954.89	27.31	OSF1.50	17643.97	7344.00						TD

Judy 3-2-2L R0 mdv 11Jul22 (Def Plan)													Fail Minor
14.01	11.40	13.02	2.61	N/A	MAS = 3.47 (m)	0.00	0.00	CtCt<=15m<15.00					Enter Alert
14.01	11.40	13.02	2.61	N/A	MAS = 3.47 (m)	23.00	23.00						WRP
14.01	11.40	11.13	2.61	6.89	MAS = 3.47 (m)	250.00	250.00						MinPts
14.91	11.40	9.89	3.51	3.45	MAS = 3.47 (m)	470.00	469.78						MINPT-O-EOU
18.75	11.40	11.79	7.36	2.97	MAS = 3.47 (m)	660.00	658.60						MinPt-O-SF
60.75	27.49	42.06	33.26	3.38	OSF1.50	1500.00	1464.65						MinPt-O-ADP
65.53	30.41	44.93	35.12	3.29	OSF1.50	1630.00	1584.99						MinPt-O-SF
118.88	36.42	94.27	82.46	4.59	OSF1.50	2480.00	2371.84	OSF>5.00					Exit Alert
539.88	140.05	446.19	399.84	5.81	OSF1.50	7880.00	7253.11						MinPt-O-SF
523.73	158.05	418.03	365.68	4.99	OSF1.50	8830.00	7344.00	OSF<5.00					Enter Alert
509.76	177.56	391.06	332.20	4.32	OSF1.50	9260.00	7344.00						MinPt-CtCt
532.97	533.47	176.99	-0.50	1.50	OSF1.50	15290.00	7344.00		OSF<1.50				Enter Minor
542.05	682.45	86.75	-140.40	1.19	OSF1.50	17643.97	7344.00						MinPts

Judy 3-4-1L 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
152.22	32.81	147.88	119.41	45.03	MAS = 10.00 (m)	400.00	399.93						MINPT-O-EOU
148.13	45.17	117.69	102.96	5.00	OSF1.50	2620.00	2501.44	OSF<5.00					Enter Alert
143.99	53.18	108.21	90.81	4.11	OSF1.50	3270.00	3103.15						MinPt-CtCt
144.85	56.04	107.16	88.81	3.92	OSF1.50	3570.00	3380.86						MINPT-O-EOU
145.76	57.14	107.34	88.82	3.87	OSF1.50	3700.00	3501.20						MinPt-O-ADP
159.64	64.09	116.58	95.55	3.77	OSF1.50	4570.00	4306.57						MinPt-O-SF
268.69	122.56	186.66	146.13	3.30	OSF1.50	7190.00	6731.90						MinPt-O-SF
406.55	123.69	323.77	282.87	4.96	OSF1.50	7810.00	7217.66	OSF>5.00					Exit Alert
486.11	146.93	387.83	339.18	4.99	OSF1.50	9390.00	7344.00	OSF<5.00					Enter Alert
464.84	465.06	154.47	-0.22	1.50	OSF1.50	15160.00	7344.00		OSF<1.50				Enter Minor
455.78	607.61	50.38	-151.83	1.12	OSF1.50	17640.00	7344.00						MinPts
455.78	606.92	50.83	-151.14	1.13	OSF1.50	17643.97	7344.00						MinPt-CtCt

Judy 3-1-4L R0 mdv 11Jul22 (Def Plan)													Fail Minor
157.64	32.81	156.66	124.83	N/A	MAS = 10.00 (m)	0.00	0.00						Surface
157.64	32.81	156.66	124.83	N/A	MAS = 10.00 (m)	23.00	23.00						WRP
157.64	32.81	154.77	124.83	82.93	MAS = 10.00 (m)	250.00	250.00						MinPts
157.83	32.81	154.56	125.02	68.68	MAS = 10.00 (m)	290.00	290.00						MINPT-O-EOU
187.59	32.81	167.34	154.79	9.68	MAS = 10.00 (m)	1670.00	1622.02						MINPT-O-EOU
203.02	33.87	180.10	169.14	9.21	OSF1.50	2260.00	2168.19						MinPt-O-SF
206.15	34.40	182.89	171.76	9.21	OSF1.50	2340.00	2242.24						MinPt-O-SF
209.94	35.01	186.28	174.94	9.21	OSF1.50	2430.00	2325.56						MinPt-O-SF
213.54	35.57	189.49	177.96	9.22	OSF1.50	2510.00	2399.61						MinPt-O-SF
259.37	42.68	230.60	216.70	9.30	OSF1.50	3320.00	3149.44						MinPt-O-SF
689.03	207.69	550.24	481.34	4.99	OSF1.50	9880.00	7344.00	OSF<5.00					Enter Alert
661.00	661.60	219.60	-0.60	1.50	OSF1.50	17390.00	7344.00		OSF<1.50				Enter Minor
660.07	676.83	208.52	-16.76	1.46	OSF1.50	17640.00	7344.00						MinPts
660.08	676.23	208.93	-16.15	1.46	OSF1.50	17643.97	7344.00						TD

Desha 4-1-3L - Plan (Def Plan)													Warning Alert
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	24.21	4.85	1367.73	MAS = 6.21 (m)	23.00	23.00						WRP
25.21	20.36	22.32	4.85	12.70	MAS = 6.21 (m)	250.00	250.00						MinPts
25.36	20.36	22.17	4.99	11.06	MAS = 6.21 (m)	280.00	280.00						MINPT-O-EOU
34.63	20.36	29.36	14.27	7.85	MAS = 6.21 (m)	490.00	489.72						MinPt-O-SF
48.00	20.36	41.42	27.64	8.40	MAS = 6.21 (m)	620.00	618.97	CtCt<=15m<15.00					Exit Alert
3884.92	141.31	3790.38	3743.61	41.52	OSF1.50	8880.00	7344.00						MINPT-O-EOU
3873.66	723.78	3390.81	3149.87	8.04	OSF1.50	17643.97	7344.00						MinPts

Judy 3-1-3L R0 mdv 11Jul22 (Def Plan)													Warning Alert
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...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-3-3L\Original Hole\Judy 3-3-3L 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			
Judy 3-5-2L R0 mdv 11Jul22 (Def Plan)	28.02	22.61	27.03	5.41	N/A	MAS = 6.89 (m)	0.00	0.00	ClCt<=15m<15.00			Enter Alert		
	28.02	22.61	27.03	5.41	N/A	MAS = 6.89 (m)	23.00	23.00				WRP		
	28.02	22.61	25.14	5.41	14.31	MAS = 6.89 (m)	250.00	250.00				MinPts		
	28.83	22.61	23.91	6.22	7.08	MAS = 6.89 (m)	460.00	459.81	ClCt<=15m>15.00			MINPT-O-EOU		
	37.79	22.61	29.89	15.19	5.32	MAS = 6.89 (m)	750.00	747.47				MinPt-O-SF		
	49.07	22.61	39.43	26.47	5.56	MAS = 6.89 (m)	900.00	894.44				Exit Alert		
	99.13	30.53	78.45	68.60	4.98	OSF1.50	1620.00	1575.74	OSF<5.00			Enter Alert		
	103.28	32.45	81.32	70.83	4.88	OSF1.50	1700.00	1649.79				MinPt-O-SF		
	109.47	33.60	86.74	75.86	4.99	OSF1.50	1790.00	1733.11				Exit Alert		
	936.72	160.86	829.15	775.86	8.78	OSF1.50	7950.00	7283.09	OSF>5.00			MinPt-O-SF		
	945.60	176.20	827.80	769.40	8.09	OSF1.50	9260.00	7344.00				MinPt-ClCt		
953.52	286.82	761.98	666.70	5.00	OSF1.50	11300.00	7344.00	OSF<5.00			Enter Alert			
978.29	682.46	522.96	295.83	2.15	OSF1.50	17643.97	7344.00				MinPts			
Judy 3-5-2L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
Judy 3-6-3L R0 mdv 11Jul22 (Def Plan)	167.42	32.81	166.44	134.61	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	167.42	32.81	166.44	134.61	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	167.42	32.81	164.55	134.61	88.11	MAS = 10.00 (m)	250.00	250.00				MinPts		
	167.64	32.81	164.37	134.83	72.97	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU		
	218.68	32.81	198.76	185.88	11.50	MAS = 10.00 (m)	1770.00	1714.59				MinPt-O-SF		
	796.93	115.23	719.78	681.70	10.45	OSF1.50	7440.00	6955.11				MinPt-O-SF		
	928.20	279.65	741.44	648.55	4.99	OSF1.50	11280.00	7344.00	OSF<5.00			Enter Alert		
	902.09	678.27	449.59	223.83	2.00	OSF1.50	17630.00	7344.00				MinPts		
	902.07	678.04	449.71	224.03	2.00	OSF1.50	17640.00	7344.00				MinPt-ClCt		
	902.08	677.63	450.00	224.45	2.00	OSF1.50	17643.97	7344.00				TD		
	Judy 3-6-3L R0 mdv 11Jul22 (Def Plan)													Warning Alert
Judy 3-7-1L R0 mdv 11Jul22 (Def Plan)	180.22	32.81	179.24	147.41	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	180.22	32.81	179.24	147.41	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	180.22	32.81	177.35	147.41	94.88	MAS = 10.00 (m)	250.00	250.00				MinPts		
	180.35	32.81	177.18	147.55	82.09	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	267.58	32.81	249.07	234.77	15.21	MAS = 10.00 (m)	1700.00	1649.79				MinPt-O-SF		
	1319.27	396.74	1054.45	922.53	5.00	OSF1.50	13140.00	7344.00		OSF<5.00			Enter Alert	
	1303.54	681.83	848.65	621.70	2.87	OSF1.50	17630.00	7344.00				MinPts		
	1303.57	681.11	849.17	622.47	2.87	OSF1.50	17643.97	7344.00				TD		
	Judy 3-7-1L R0 mdv 11Jul22 (Def Plan)													Warning Alert
	Judy 3-8-2L R0 mdv 11Jul22 (Def Plan)	195.45	32.81	194.47	162.64	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		195.45	32.81	194.47	162.64	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
195.45		32.81	192.58	162.64	102.95	MAS = 10.00 (m)	250.00	250.00				MinPts		
195.59		32.81	192.42	162.78	89.06	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
323.34		32.81	305.43	290.53	19.05	MAS = 10.00 (m)	1680.00	1631.28				MinPt-O-SF		
1524.92		103.92	1455.31	1420.99	22.21	OSF1.50	7270.00	6805.34				MinPt-O-SF		
1536.72		104.71	1466.58	1432.01	22.21	OSF1.50	7310.00	6841.53	OSF<5.00			MinPt-O-SF		
1743.85		524.34	1393.96	1219.51	5.00	OSF1.50	15270.00	7344.00				Enter Alert		
1735.68		674.17	1285.91	1061.51	3.87	OSF1.50	17630.00	7344.00				MinPts		
1735.72		673.80	1286.19	1061.92	3.87	OSF1.50	17643.97	7344.00				TD		
Judy 3-8-2L R0 mdv 11Jul22 (Def Plan)													Warning Alert	
Judy 3-2-4L R0 mdv 11Jul22 (Def Plan)	212.59	32.81	211.61	179.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	212.59	32.81	211.61	179.78	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	212.59	32.81	209.72	179.78	112.02	MAS = 10.00 (m)	250.00	250.00				MinPts		
	212.74	32.81	209.57	179.93	96.91	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	402.71	32.81	387.92	369.90	29.11	MAS = 10.00 (m)	1430.00	1399.78				MinPt-O-SF		
	1954.16	587.28	1562.31	1366.88	5.00	OSF1.50	16140.00	7344.00		OSF<5.00			Enter Alert	
	1948.55	682.13	1493.47	1266.42	4.29	OSF1.50	17630.00	7344.00				MinPts		
	1948.58	681.90	1493.65	1266.68	4.29	OSF1.50	17643.97	7344.00				TD		
	Judy 3-2-4L R0 mdv 11Jul22 (Def Plan)													Warning Alert
	Jordan 34-5 Blind 0' to 7995' - PR (Def Survey)	231.21	32.81	230.23	198.40	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		231.21	32.81	230.23	198.40	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
231.21		32.81	228.34	198.40	121.88	MAS = 10.00 (m)	250.00	250.00				MinPts		
231.36		32.81	228.19	198.55	105.43	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
430.75		32.81	415.66	397.94	30.49	MAS = 10.00 (m)	1460.00	1427.62				MinPt-O-SF		
2204.49		662.56	1762.45	1541.92	5.00	OSF1.50	17340.00	7344.00		OSF<5.00			Enter Alert	
2203.41		680.68	1749.29	1522.73	4.86	OSF1.50	17630.00	7344.00				MinPts		
2203.44		680.55	1749.41	1522.89	4.86	OSF1.50	17643.97	7344.00				TD		
Jordan 34-5 Blind 0' to 7995' - PR (Def Survey)													Warning Alert	
Great Western Wagner 41-10 Blind 0' to 8100' - PA (Def Survey)		1545.66	32.81	1543.85	1512.86	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		1545.37	32.81	1543.52	1512.56	46478.90	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	1545.34	32.81	1543.50	1512.54	52539.85	MAS = 10.00 (m)	23.00	23.00				WRP		
	631.93	191.89	503.46	440.03	4.97	OSF1.50	3390.00	3214.24	OSF<5.00			Enter Alert		
	291.16	283.61	101.55	7.55	1.54	OSF1.50	4870.00	4584.28				MinPt-ClCt		
	292.62	288.19	99.96	4.43	1.52	OSF1.50	4950.00	4658.34				MINPT-O-EOU		
	294.52	290.40	100.38	4.12	1.52	OSF1.50	4990.00	4695.36				MinPts		
	1473.22	444.82	1176.13	1028.40	4.98	OSF1.50	8150.00	7336.29		OSF>5.00		Exit Alert		
	10516.30	453.81	10213.22	10062.49	34.88	OSF1.50	17643.97	7344.00				TD		
	Great Western Wagner 41-10 Blind 0' to 8100' - PA (Def Survey)													Warning Alert
	Desha 4-2-2L - Plan (Def Plan)	7420.65	32.81	7418.66	7387.84	42066.08	MAS = 10.00 (m)	0.00	0.00				Surface	
7420.65		32.81	7418.08	7387.84	9815.42	MAS = 10.00 (m)	23.00	23.00				WRP		
1492.21		450.28	1191.49	1041.93	4.98	OSF1.50	12580.00	7344.00	OSF<5.00			Enter Alert		
603.76		537.58	244.84	66.19	1.69	OSF1.50	13940.00	7344.00				MinPt-ClCt		
605.45		543.16	242.81	62.29	1.67	OSF1.50	13990.00	7344.00				MINPT-O-EOU		
606.28		544.15	242.98	62.13	1.67	OSF1.50	14000.00	7344.00				MinPt-O-ADP		
607.27		545.09	243.34	62.18	1.67	OSF1.50	14010.00	7344.00	OSF>5.00			MinPt-O-SF		
1677.78		506.13	1339.82	1171.64	4.98	OSF1.50	15510.00	7344.00				Exit Alert		
3748.29		485.97	3423.78	3262.32	11.60	OSF1.50	17643.97	7344.00				TD		
Desha 4-2-2L - Plan (Def Plan)													Pass	
Desha 4-2-2L - Plan (Def Plan)		50.43	32.81	49.44	17.62	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	50.43	32.81	49.43	17.62	2791.01	MAS = 10.00 (m)	23.00	23.00				WRP		
	50.43	32.81	47.54	17.62	25.92	MAS = 10.00 (m)	250.00	250.00				MinPts		
	50.57	32.81	47.38	17.76	22.50	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
	67.90	32.81	61.83	35.09	13.17	MAS = 10.00 (m)	570.00	569.33				MinPt-O-SF		

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	4217.02	147.30	4118.43	4069.72	43.22	OSF1.50	8810.00	7344.00				MINPT-O-EOU	
	4201.06	723.03	3718.71	3478.03	8.73	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-1-4L - Plan (Def Plan)													Pass
	75.64	32.81	74.66	42.83	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	75.64	32.81	74.64	42.83	3511.91	MAS = 10.00 (m)	23.00	23.00				WRP	
	75.64	32.81	72.74	42.83	39.03	MAS = 10.00 (m)	250.00	250.00				MinPts	
	75.79	32.81	72.59	42.98	33.86	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	105.11	32.81	98.26	72.30	17.75	MAS = 10.00 (m)	650.00	648.70				MinPt-O-SF	
	3664.03	85.82	3606.49	3578.21	64.77	OSF1.50	6940.00	6500.49				MinPt-O-SF	
	4454.28	723.00	3971.95	3731.28	9.25	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-3-1L - Plan (Def Plan)													Pass
	100.86	32.81	99.87	68.05	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	100.86	32.81	99.85	68.05	4697.98	MAS = 10.00 (m)	23.00	23.00				WRP	
	100.86	32.81	97.96	68.05	52.21	MAS = 10.00 (m)	250.00	250.00				MinPts	
	101.00	32.81	97.81	68.19	45.28	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	142.13	32.81	134.70	109.32	21.80	MAS = 10.00 (m)	710.00	708.03				MinPt-O-SF	
	4671.22	158.45	4565.26	4512.77	44.49	OSF1.50	9030.00	7344.00				MINPT-O-EOU	
	4647.28	721.91	4165.67	3925.36	9.67	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-4-3L - Plan (Def Plan)													Pass
	126.07	32.81	125.09	93.26	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	126.07	32.81	125.06	93.26	5884.06	MAS = 10.00 (m)	23.00	23.00				WRP	
	126.07	32.81	123.17	93.26	65.39	MAS = 10.00 (m)	250.00	250.00				MinPts	
	126.21	32.81	123.02	93.40	56.69	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	178.96	32.81	171.05	146.15	25.70	MAS = 10.00 (m)	760.00	757.31				MinPt-O-SF	
	4930.02	722.79	4447.83	4207.23	10.24	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-5-2L - Plan (Def Plan)													Pass
	151.28	32.81	150.30	118.47	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	151.28	32.81	150.28	118.47	7070.13	MAS = 10.00 (m)	23.00	23.00				WRP	
	151.28	32.81	148.39	118.47	78.57	MAS = 10.00 (m)	250.00	250.00				MinPts	
	151.43	32.81	148.23	118.62	68.10	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	219.82	32.81	211.34	187.01	29.21	MAS = 10.00 (m)	820.00	816.25				MinPt-O-SF	
	5257.69	722.60	4775.63	4535.09	10.93	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-2-4L - Plan (Def Plan)													Pass
	176.50	32.81	175.51	143.69	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	176.50	32.81	175.49	143.69	8256.20	MAS = 10.00 (m)	23.00	23.00				WRP	
	176.50	32.81	173.60	143.69	91.75	MAS = 10.00 (m)	250.00	250.00				MinPts	
	176.64	32.81	173.45	143.83	79.52	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	256.87	32.81	248.02	224.06	32.54	MAS = 10.00 (m)	860.00	855.40				MinPt-O-SF	
	3623.56	65.02	3579.88	3558.53	84.85	OSF1.50	5960.00	5593.30				MinPt-O-SF	
	5510.53	722.63	5028.45	4787.90	11.45	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-6-1L - Plan (Def Plan)													Pass
	201.71	32.81	200.73	168.90	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	201.71	32.81	200.71	168.90	9442.27	MAS = 10.00 (m)	23.00	23.00				WRP	
	201.71	32.81	198.81	168.90	104.93	MAS = 10.00 (m)	250.00	250.00				MinPts	
	201.85	32.81	198.66	169.05	90.93	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	297.71	32.81	288.40	264.90	35.65	MAS = 10.00 (m)	910.00	904.18				MinPt-O-SF	
	5700.42	722.28	5218.57	4978.14	11.85	OSF1.50	17643.97	7344.00				MinPts	
Desha 4-7-3L - Plan (Def Plan)													Pass
	226.93	32.81	225.94	194.12	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	226.93	32.81	225.92	194.12	10628.34	MAS = 10.00 (m)	23.00	23.00				WRP	
	226.93	32.81	224.03	194.12	118.11	MAS = 10.00 (m)	250.00	250.00				MinPts	
	227.07	32.81	223.88	194.26	102.35	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	339.70	32.81	329.94	306.90	38.58	MAS = 10.00 (m)	960.00	952.75				MinPt-O-SF	
	5986.54	722.72	5504.40	5263.82	12.44	OSF1.50	17643.97	7344.00				MinPts	
Judy 3-9-3L R0 mdv 11Jul22 (Def Plan)													Pass
	250.99	32.81	250.00	218.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	250.99	32.81	250.00	218.18	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	250.99	32.81	248.11	218.18	132.35	MAS = 10.00 (m)	250.00	250.00				MinPts	
	251.14	32.81	247.97	218.33	114.48	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	443.37	32.81	428.73	410.56	32.42	MAS = 10.00 (m)	1420.00	1390.48				MinPt-O-SF	
	2542.47	681.73	2087.66	1860.74	5.60	OSF1.50	17630.00	7344.00				MinPts	
	2542.51	681.72	2087.70	1860.78	5.60	OSF1.50	17643.97	7344.00				TD	
Judy 3-11-2L R0 mdv 11Jul22 (Def Plan)													Pass
	252.14	32.81	251.15	219.33	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	252.14	32.81	251.15	219.33	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	252.14	32.81	249.27	219.33	132.96	MAS = 10.00 (m)	250.00	250.00				MinPts	
	252.31	32.81	249.14	219.50	115.15	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	457.84	32.81	444.11	425.04	35.84	MAS = 10.00 (m)	1330.00	1306.29				MinPt-O-SF	
	1514.34	46.61	1482.93	1467.72	49.75	OSF1.50	4130.00	3899.26				MinPt-O-SF	
	3419.15	117.98	3340.16	3301.16	43.82	OSF1.50	8270.00	7344.00				MINPT-O-EOU	
	3419.52	118.52	3340.16	3301.00	43.63	OSF1.50	8280.00	7344.00				MinPt-O-ADP	
	3423.04	675.19	2972.59	2747.86	7.61	OSF1.50	17620.00	7344.00				MinPt-CtCt	
	3423.10	675.55	2972.41	2747.55	7.61	OSF1.50	17643.97	7344.00				MinPts	
Judy 3-10-1L R0 mdv 11Jul22 (Def Plan)													Pass
	271.67	32.81	270.68	238.86	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	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	
	271.82	32.81	268.65	239.01	123.95	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	518.26	32.81	502.52	485.45	35.05	MAS = 10.00 (m)	1530.00	1492.42				MinPt-O-SF	
	2906.65	679.03	2453.64	2227.62	6.43	OSF1.50	17630.00	7344.00				MinPt-CtCt	
	2906.67	679.10	2453.61	2227.57	6.43	OSF1.50	17640.00	7344.00				MINPT-O-EOU	
	2906.69	679.13	2453.61	2227.57	6.43	OSF1.50	17643.97	7344.00				MinPts	
Judy 3-4 MWD 0' to 7730' - PR (Def Survey)													Pass
	277.41	32.81	275.59	244.60	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	

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

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Judy 3-3-4L R0 mdv 11Jul22 (Def Plan)	277.35	32.81	275.52	244.54	15508.19	MAS = 10.00 (m)	23.00	23.00				WRP	
	276.80	32.81	273.04	244.00	140.51	MAS = 10.00 (m)	260.00	260.00				MinPts	
	276.94	32.81	272.87	244.13	122.25	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU	
	484.49	32.81	469.43	451.68	36.44	MAS = 10.00 (m)	1390.00	1362.51				MinPt-O-SF	
	535.40	32.81	518.88	502.59	36.26	MAS = 10.00 (m)	1530.00	1492.42				MinPt-O-SF	
	1030.01	38.75	1003.64	991.26	41.53	OSF1.50	2780.00	2649.55				MinPt-O-SF	
	1111.67	41.83	1083.25	1069.84	41.40	OSF1.50	2980.00	2834.70				MinPt-O-SF	
	1243.09	46.69	1211.43	1196.40	41.31	OSF1.50	3290.00	3121.66				MinPt-O-SF	
	1443.25	55.09	1405.99	1388.16	40.43	OSF1.50	3770.00	3566.00				MinPt-O-SF	
	1531.71	58.60	1492.11	1473.11	40.27	OSF1.50	3980.00	3760.40				MinPt-O-SF	
	1600.36	61.10	1559.09	1539.25	40.30	OSF1.50	4140.00	3908.51				MinPt-O-SF	
	1789.42	69.49	1742.56	1719.94	39.50	OSF1.50	4580.00	4315.83				MinPt-O-SF	
	1990.81	78.81	1937.74	1912.01	38.65	OSF1.50	5040.00	4741.65				MinPt-O-SF	
	2183.73	85.52	2126.18	2098.21	39.00	OSF1.50	5480.00	5148.96				MinPt-O-SF	
	2246.78	88.37	2187.33	2158.41	38.81	OSF1.50	5620.00	5278.56				MinPt-O-SF	
	2524.98	101.47	2456.80	2423.51	37.90	OSF1.50	6250.00	5861.75				MinPt-O-SF	
	2674.42	109.01	2601.21	2565.41	37.33	OSF1.50	6600.00	6185.75				MinPt-O-SF	
	3084.91	134.36	2994.80	2950.55	34.84	OSF1.50	8280.00	7344.00				MinPt-CiCt	
	3084.93	134.40	2994.76	2950.53	34.83	OSF1.50	8290.00	7344.00				MinPts	
	3097.67	135.46	3006.82	2962.20	34.69	OSF1.50	8560.00	7344.00				MinPt-O-SF	
	9750.04	150.42	9649.23	9599.62	98.26	OSF1.50	17643.97	7344.00				TD	
Pass													
Judy 3-3-4L R0 mdv 11Jul22 (Def Plan)	293.06	32.81	292.07	260.25	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	293.06	32.81	292.07	260.25	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	293.06	32.81	290.18	260.25	154.62	MAS = 10.00 (m)	250.00	250.00				MinPts	
	293.22	32.81	290.06	260.42	134.20	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	631.27	32.81	613.82	598.46	38.27	MAS = 10.00 (m)	1700.00	1649.79				MinPt-O-SF	
	1748.52	53.77	1712.34	1694.74	49.66	OSF1.50	4680.00	4408.40				MinPt-O-SF	
	3221.23	122.71	3139.06	3098.52	39.68	OSF1.50	8250.00	7343.94				MINPT-O-EOU	
	3145.77	681.63	2691.02	2464.14	6.93	OSF1.50	17630.00	7344.00				MinPt-CiCt	
	3145.82	681.78	2690.97	2464.04	6.93	OSF1.50	17643.97	7344.00				MinPts	
Pass													
Jordan 34-9 Blind 0' to 7970' - PA (Def Survey)	447.29	32.81	445.48	414.49	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	446.96	32.81	445.10	414.15	10079.63	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	446.85	32.81	444.97	414.04	7463.82	MAS = 10.00 (m)	23.00	23.00				WRP	
	446.85	32.81	437.72	414.04	60.88	MAS = 10.00 (m)	250.00	250.00				MinPts	
	449.54	32.81	435.18	416.73	35.67	MAS = 10.00 (m)	380.00	379.96				MINPT-O-EOU	
	2882.91	410.13	2608.96	2472.78	10.58	OSF1.50	7280.00	6814.43				MinPt-O-SF	
	10808.42	453.56	10505.51	10354.86	35.87	OSF1.50	17643.97	7344.00				TD	
Pass													
Jordan 34-3 Blind 0' to 8008' - PR (Def Survey)	1202.49	32.81	1200.68	1169.68	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1201.73	32.81	1199.81	1168.92	11343.58	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
	1141.91	125.44	1057.75	1016.47	13.81	OSF1.50	2170.00	2084.87				MinPt-CiCt	
	1147.63	142.52	1052.08	1005.11	12.20	OSF1.50	2470.00	2362.59				MINPT-O-EOU	
	1155.23	151.65	1053.60	1003.58	11.53	OSF1.50	2630.00	2510.70				MinPt-O-ADP	
	1905.35	352.14	1670.06	1553.21	8.15	OSF1.50	6200.00	5815.47				MinPt-O-SF	
	11579.89	450.35	11279.13	11129.55	38.70	OSF1.50	17643.97	7344.00				TD	
Pass													
HSR-Cherry Knolls 9-33 Blind 0' to 8251' - DA (Def Survey)	1891.52	32.81	1889.71	1858.71	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1891.40	32.81	1889.57	1858.59	100589.39	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	1891.32	32.81	1889.49	1858.51	157431.10	MAS = 10.00 (m)	23.00	23.00				WRP	
	1891.31	32.81	1882.29	1858.50	261.92	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1893.82	32.81	1879.94	1861.02	156.74	MAS = 10.00 (m)	370.00	369.96				MINPT-O-EOU	
	4412.37	425.85	4127.93	3986.52	15.59	OSF1.50	7590.00	7074.71				MinPt-O-SF	
	11979.18	458.06	11673.28	11521.12	39.36	OSF1.50	17643.97	7344.00				TD	
Pass													
Kalsen 14-10X Blind 0' to 8114' - PR (Def Survey)	9625.72	32.81	9622.96	9592.91	10160.49	MAS = 10.00 (m)	0.00	0.00				Surface	
	9625.72	32.81	9622.35	9592.91	6199.62	MAS = 10.00 (m)	23.00	23.00				WRP	
	9501.63	234.75	9344.60	9266.89	61.12	OSF1.50	3970.00	3751.14				MinPt-CiCt	
	9553.30	388.82	9293.55	9164.48	37.00	OSF1.50	6590.00	6176.49				MINPT-O-EOU	
	2331.36	626.77	1912.98	1704.60	5.59	OSF1.50	16920.00	7344.00				MinPts	
	2331.38	626.79	1912.98	1704.59	5.59	OSF1.50	16930.00	7344.00				MinPt-O-ADP	
	2331.44	626.81	1913.03	1704.63	5.59	OSF1.50	16940.00	7344.00				MinPt-O-SF	
	2440.74	615.27	2030.02	1825.47	5.96	OSF1.50	17643.97	7344.00				TD	
Pass													
Kalsen 1-10 Blind 0' to 8290' - PR (Def Survey)	6952.08	32.81	6949.16	6919.27	6290.61	MAS = 10.00 (m)	0.00	0.00				Surface	
	6952.08	32.81	6948.56	6919.27	4064.70	MAS = 10.00 (m)	23.00	23.00				WRP	
	6838.99	195.39	6708.20	6643.60	52.93	OSF1.50	3290.00	3121.66				MinPt-CiCt	
	6875.95	305.47	6671.77	6570.48	33.93	OSF1.50	5170.00	4861.99				MINPT-O-EOU	
	6922.98	361.87	6681.20	6561.11	28.82	OSF1.50	6130.00	5750.67				MinPt-O-ADP	
	2363.01	547.76	1997.30	1815.25	6.49	OSF1.50	14250.00	7344.00				MinPts	
	2363.05	547.78	1997.33	1815.27	6.49	OSF1.50	14260.00	7344.00				MinPt-O-SF	
	4138.28	490.63	3810.66	3647.65	12.69	OSF1.50	17643.97	7344.00				TD	
Pass													
Kalsen 14-10 Blind 0' to 8244' - PA (Def Survey)	9966.95	32.81	9963.93	9934.14	8231.72	MAS = 10.00 (m)	0.00	0.00				Surface	
	9966.95	32.81	9963.32	9934.14	5487.81	MAS = 10.00 (m)	23.00	23.00				WRP	
	9878.75	185.16	9754.77	9693.59	80.72	OSF1.50	3110.00	2955.04				MinPt-CiCt	
	9932.51	345.16	9701.87	9587.36	43.36	OSF1.50	5840.00	5482.22				MINPT-O-EOU	
	2685.55	638.53	2259.33	2047.02	6.32	OSF1.50	17270.00	7344.00				MinPt-CiCt	
	2685.57	638.50	2259.30	2046.97	6.32	OSF1.50	17280.00	7344.00				MINPT-O-EOU	
	2685.62	638.65	2259.32	2046.97	6.32	OSF1.50	17290.00	7344.00				MinPt-O-ADP	
	2686.01	638.80	2259.61	2047.22	6.32	OSF1.50	17320.00	7344.00				MinPt-O-SF	
	2711.46	637.92	2285.65	2073.54	6.39	OSF1.50	17643.97	7344.00				TD	
Pass													
RMPCO-UPRR Penrod 1 Blind 0' to 8112' - PA (Def Survey)	5017.83	32.81	5015.89	4985.02	38160.94	MAS = 10.00 (m)	0.00	0.00				Surface	
	5017.83	32.81	5015.28	4985.02	6814.45	MAS = 10.00 (m)	23.00	23.00				WRP	
	4967.53	86.05	4909.61	4881.53	88.42	OSF1.50	1420.00	1390.48				MinPt-CiCt	

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

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
4991.46	143.49	4895.27	4847.88	52.75		OSF1.50	2430.00	2325.56				MINPT-O-EOU	
5025.15	183.83	4902.06	4841.32	41.35		OSF1.50	3130.00	2973.55				MinPt-O-ADP	
3031.46	499.52	2697.91	2531.94	9.13		OSF1.50	12310.00	7344.00				MinPt-CtCt	
3031.47	499.58	2697.89	2531.90	9.13		OSF1.50	12320.00	7344.00				MINPT-O-EOU	
3031.52	499.63	2697.90	2531.89	9.13		OSF1.50	12330.00	7344.00				MinPt-O-ADP	
3032.78	499.99	2698.92	2532.79	9.12		OSF1.50	12400.00	7344.00				MinPt-O-SF	
6134.90	474.98	5817.71	5659.92	19.43		OSF1.50	17643.97	7344.00				TD	