

# Notes: 2024 July Updated MEQ DFN

*Aleta Finnila, July 9, 2024*

# See file: New MEQ DFN v2 July 2024.csv located in the Local Coordinates folder for Notes on file groupings

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New MEQ DFN v2 July 2024.csv Search

Finnila, Aleta

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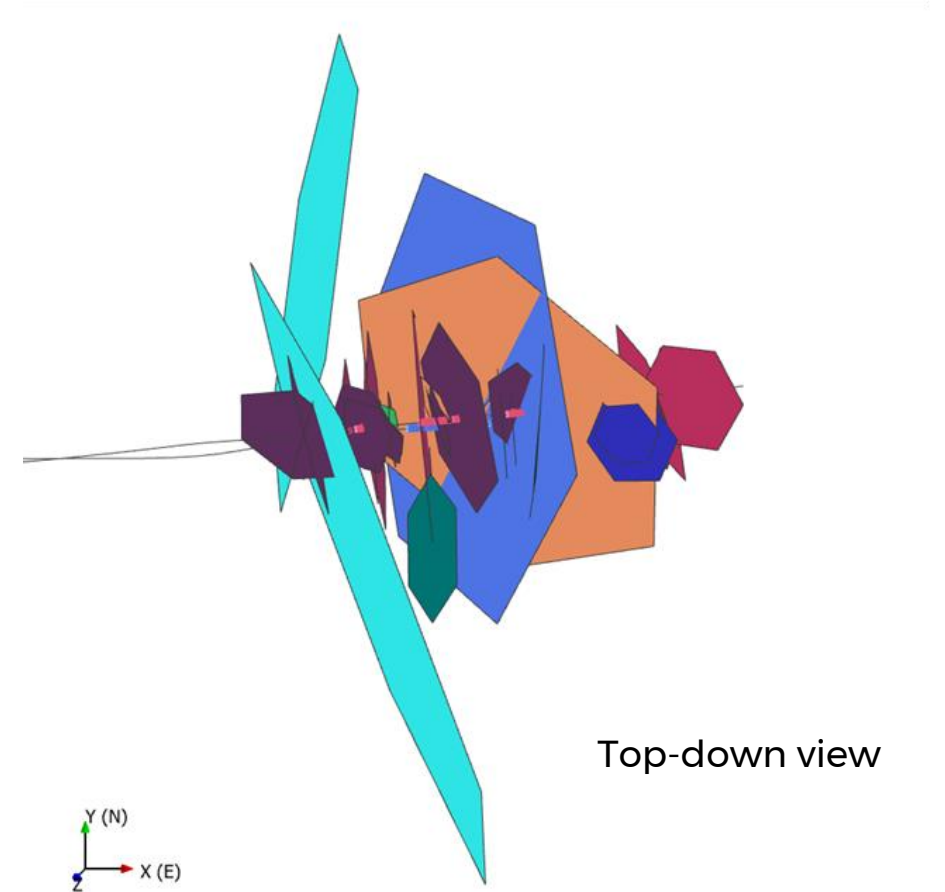
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	FractureX[m]	FractureY[m]	FractureZ[m]	FractureRadius[m]	Trend[deg]	Plunge[deg]	Strike[deg]	Dip_Angle[deg]	Aperture[m]	Permeability[m2]	Compressibility[1/kPa]	Area[m2]	Filename	Notes
1	344.3785157	244.4667317	284.9	59.5	58.3	38.2	148.3	51.8	0.000385681	1.06E-11	7.20E-06	11122	MS_Stage1_Local.csv	No change from previous DFN (first 16A stimulation)
2	365.2614609	265.1568887	137.0999994	54.4001	65.5001	50.4	155.5	39.6	0.000368782	9.91E-12	7.20E-06	9297.13	MS_Stage1_Local.csv	No change from previous DFN (first 16A stimulation)
3	420.6867422	283.6273569	339.6000005	75	62.3	48.9	152.3	41.1	0.000433013	1.26E-11	7.20E-06	17671.4	MS_Stage1_Local.csv	No change from previous DFN (first 16A stimulation)
4	369.5208286	278.3067095	302.0000017	110	246.1	16.4	156.1	73.6	0.000524405	1.68E-11	7.20E-06	38013.3	MS_Stage1_Local.csv	No change from previous DFN (first 16A stimulation)
5	311.2830266	236.5712521	271.5	51.5	83.6	71.4	173.6	18.6	0.000358817	9.52E-12	0.0000072	8332.28	MS_Stage2_Local.csv	No change from previous DFN (first 16A stimulation)
6	311.4885928	263.7826052	302.2999992	61.2	60.9	75.6	150.9	14.4	0.000391152	1.08E-11	0.0000072	11766.6	MS_Stage2_Local.csv	No change from previous DFN (first 16A stimulation)
7	321.6621481	270.0395032	335.9999987	54.3998	64.8999	41	154.9	49	0.000368781	9.91E-12	0.0000072	9297.05	MS_Stage2_Local.csv	No change from previous DFN (first 16A stimulation)
8	321.7505775	230.9099469	458.6000001	41.9	52.6	58.8	142.6	31.2	0.000323651	8.15E-12	0.0000072	5515.41	MS_Stage2_Local.csv	No change from previous DFN (first 16A stimulation)
9	330.6212843	222.3264242	433.3000031	59.3001	55	58.3	145	31.7	0.000385033	1.06E-11	0.0000072	11047.4	MS_Stage2_Local.csv	No change from previous DFN (first 16A stimulation)
10	202.9192276	255.6598322	357	148.5	93.7	0.800063	3.7	89.1999	0.000609303	2.11E-11	0.0000072	69279.2	MS_Stage3_Local.csv	No change from previous DFN (first 16A stimulation)
11	180.6460925	342.5841491	312.0000013	74.3	66.9	3.09999	156.9	86.9	0.000430987	1.25E-11	0.0000072	17343.1	MS_Stage3_Local.csv	No change from previous DFN (first 16A stimulation)
12	98.84258641	290.8365977	251.3038649	303.75	84.1664	27.1438	174.166	62.8562	0.000871421	3.60E-11	0.0000072	289856	MS_Stage_3R_to_6_Local.csv	No change from previous DFN (second 16A stimulation)
13	61.61310351	77.93207098	426.5152192	91.125	90.9421	23.5115	0.94209	66.4885	0.000477297	1.46E-11	7.20E-06	26087	MS_Stage_7_Local.csv	No change from previous DFN (second 16A stimulation)
14	-104.3145495	456.3838026	396.0056862	303.75	97.6473	12.2434	7.64727	77.7566	0.000871421	3.60E-11	0.0000072	289856	MS_Stage_8_to_10_Local.csv	No change from previous DFN (second 16A stimulation)
15	-17.96650064	40.6504292	482.3122495	400	68.8989	9.38681	158.899	80.6132	0.001	4.43E-11	0.0000072	502655	MS_Stage_8_to_10_Local.csv	No change from previous DFN (second 16A stimulation)
16	397.3925453	272.1099795	209.6847691	84.8	85	0	175	90	0.000460435	1.38E-11	0.0000072	22591.3	PointData_16A(78)-32_HF_1_Local.csv	Stage 1 Hydrofrac (second 16A stimulation) / No change from previous
17	308.4370072	258.7955875	244.9486852	16.96	85	0	175	90	0.000205913	4.14E-12	0.0000072	903.653	PointData_16A(78)-32_HF_1_Local.csv	Stage 2 Hydrofrac (second 16A stimulation) / No change from previous
18	187.3343466	251.1160238	301.8041539	67.84	85	0	175	90	0.000411825	1.17E-11	0.0000072	14458.4	PointData_16A(78)-32_HF_1_Local.csv	Stage 3 Hydrofrac (second 16A stimulation) / No change from previous
19	171.3242995	250.2759421	309.2523961	84.8	85	0	175	90	0.000460435	1.38E-11	0.0000072	22591.3	PointData_16A(78)-32_HF_1_Local.csv	Stage 4 Hydrofrac (second 16A stimulation) / No change from previous
20	157.5068545	249.4722383	315.6298375	84.8	85	0	175	90	0.000460435	1.38E-11	0.0000072	22591.3	PointData_16A(78)-32_HF_1_Local.csv	Stage 5 Hydrofrac (second 16A stimulation) / No change from previous
21	50.37173001	241.4261066	364.8944859	162.4	85	0	175	90	0.000637181	2.25E-11	0.0000072	82855.6	PointData_16A(78)-32_HF_1_Local.csv	Stage 8 Hydrofrac (second 16A stimulation) / No change from previous
22	6.357510259	238.1876117	387.8380895	49.4	85	0	175	90	0.000351426	9.22E-12	0.0000072	7666.62	PointData_16A(78)-32_HF_1_Local.csv	Stage 9-2 Hydrofrac (second 16A stimulation) / No change from previous
23	-7.016681881	237.3654778	394.7050328	44	85	0	175	90	0.000331662	8.46E-12	0.0000072	6082.12	PointData_16A(78)-32_HF_1_Local.csv	Stage 9-4 Hydrofrac (second 16A stimulation) / No change from previous
24	-13.94730379	236.8540848	398.1518102	124	85	0	175	90	0.000556776	1.84E-11	0.0000072	48305.1	PointData_16A(78)-32_HF_1_Local.csv	Stage 9-5 Hydrofrac (second 16A stimulation) / No change from previous

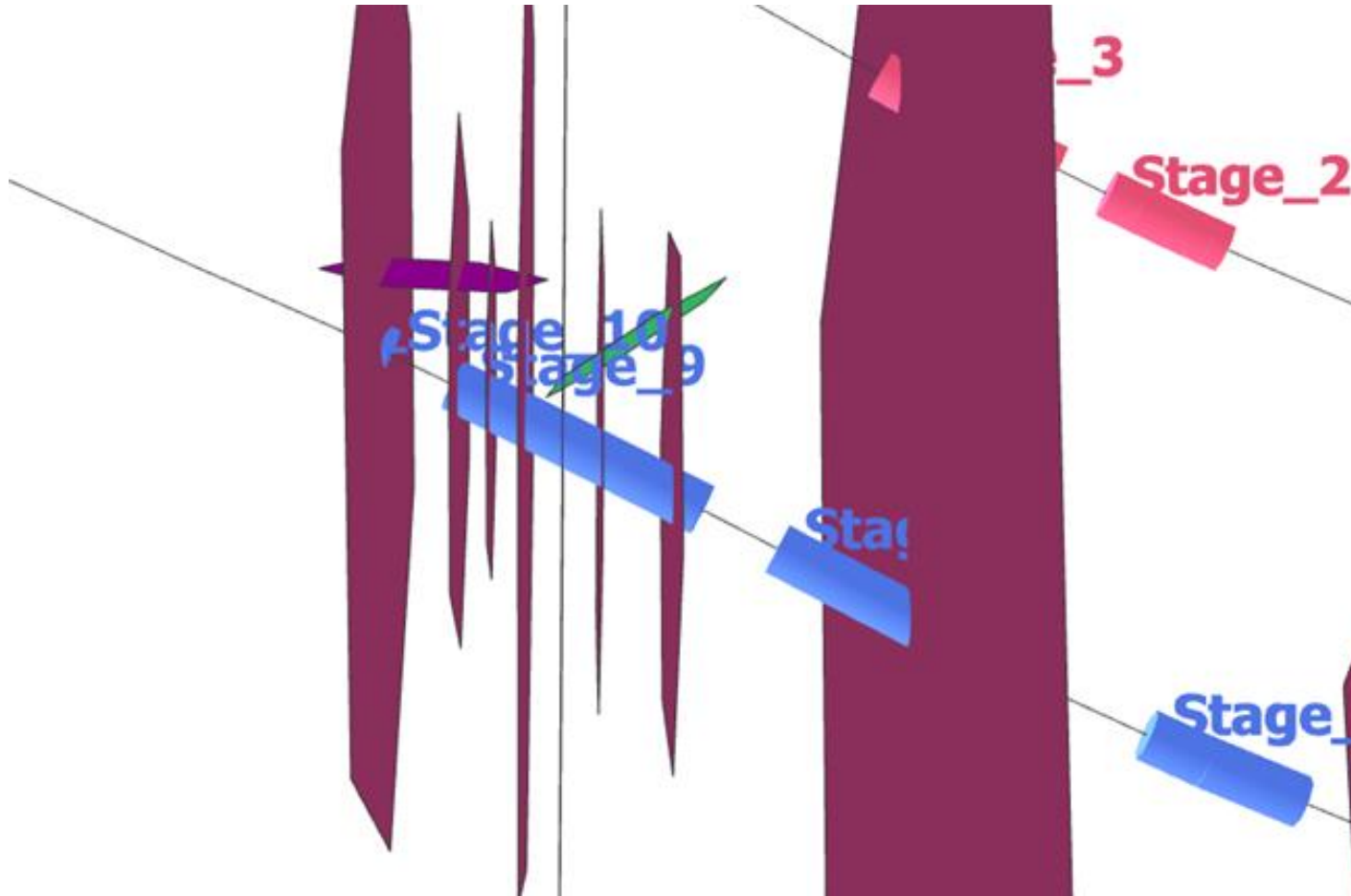


# Significant changes from 2024 May MEQ DFN

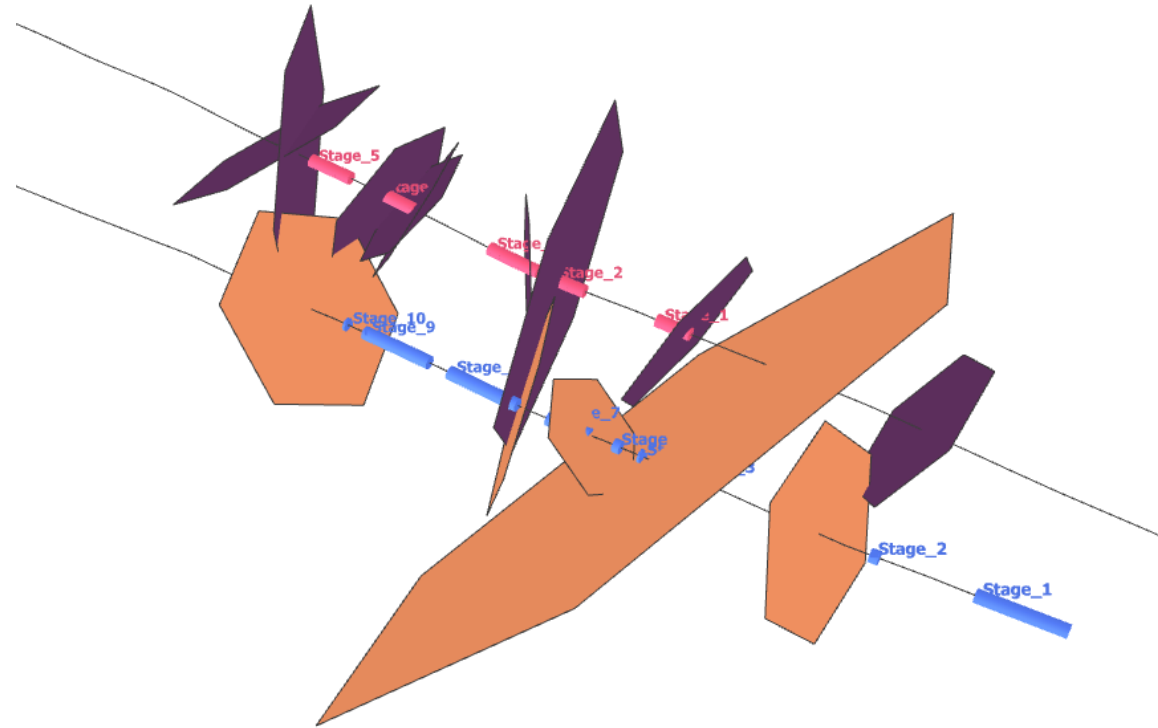
- Many fewer fractures (44) – Did not include the stochastic fractures that were in the last one
- Two new small fractures have been added to make sure all the hydraulic fractures from 16A can participate in flow paths reaching 16B
- The significant intersecting fractures identified from logs in 16A and 16B have increase in size to create more connections among the fractures
- Each 16A hydrofrac is labeled by stage in the csv file notes column so you can apply appropriate flow rates (file located in Local Coordinates folder)



**Two new fractures (purple and green) among the hydrofrac set (magenta) – note not all the DFN fractures are shown here:**



# Larger intersecting fractures from 16A and 16B logs:



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